

UNIVERSITA' DEGLI STUDI DI PADOVA

DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI "M.FANNO"

CORSO DI LAUREA MAGISTRALE IN BUSINESS ADMINISTRATION

TESI DI LAUREA

HOW ETHICAL ARE SRI FUNDS OFFERED TO ITALIAN RETAIL INVESTORS? UNVEILING GREENWASHING PRACTICES (IF ANY)

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ANNO ACCADEMICO 2020 – 2021

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Abstract

The recent booming of ethical finance is determining a strong financial paradigm shift. Ethical investing approaches are embraced by an increasing number of traditional asset management companies seeking to intercept the shift of wealth from traditional financial products to ethical finance solutions, also known as sustainable and responsible investments (SRIs). The purpose of this study is to provide an overview of the Italian ethical investing mutual funds market as at the end of November 2020 and asses the actual ethical focus of the industry.

The analysis is based on the SRI mutual funds included by Assognstioni in its database of mutual funds offered to Italian retail investors. From an analysis of the funds' periodical disclosure, a detailed overview of the ethical investing strategies adopted by asset managers highlights that the ESG integration approach is the leading ethical investing strategy in the Italian market, followed by engagement and voting and negative screening.

To test the actual ethical focus of the industry, an analysis of the portfolios of these funds was conducted. A framework based on 14 controversial themes associated with unethical and unsustainable practices driving the world away from the achievement of the Sustainable Development Goals, is used to unveil that almost two thirds of the ethical funds operating in Italy conceal participations in some of the most unethical and unsustainable companies.

Against this background, Italian retail investors are facing significant threats of greenwashing practices. Furthermore, the Morningstar sustainability rating, one of the most popular amongst investors, fails to signal these threats due to conflicts of interest.

Further research could focus on the EU Ecolabel extension to financial products and the SEC consideration to expand the retail access to private equity funds, hence to impact investment solutions. These interventions could help retail investors to gain access to real ethical and impact-oriented investment solutions.

Keywords: ethical finance, SRI, greenwashing, sustainable finance, Italy.

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Introduction

The Covid-19 pandemic and the financial crisis that swept worldwide causing unprecedented economic and social damages have raised global attention on the risks resulting from the rapid spread of diseases. There is increasing evidence that zoonotic diseases¹ are emerging as a consequence of unsustainable practices like wildlife markets and illegal trade (de Wit, Freschi and Trench, 2020), deforestation (Fornace *et al.*, 2019; Jeffries, 2020), loss of biodiversity (Chivian and Bernstein, 2008), poor sanitation (Lowe *et al.*, 2018), and rising temperatures (Caminade *et al.*, 2014). Such issues receive their everyday support by a global financial system that is son of neoclassical theories such as the invisible hand (Smith, 1776), the shareholder theory (Friedman, 1970), and the modern portfolio theory (Markowitz, 1952). This is why a paradigm shift towards a so called "ethical finance" (Petracci, 2016) is crucial to achieve a more sustainable world, capable of preserving the ability of future generations to achieve their needs (Brundtland, 1987).

Since the aftermath of the global financial crisis, this new paradigm has reached an unprecedented momentum (Puaschunder, 2018), with initiatives like the 2030 Agenda for Sustainable Development, the United Nations Global Compact, and the Principles for Responsible Investment (PRI), fostering the change by recognising to the private sector a fundamental role.

Impact investing represents the force capable of driving this revolution by uncovering the "invisible heart" of markets (Cohen, 2014) and addressing social issues through the management of private capitals (Martin, 2013). The alignment of the results achieved by impact investors with the UN Sustainable Development Goals (SDGs)² reinforces their leading role in a shift towards ethical finance (GIIN, 2016). Anyway, despite the recent booming of the impact assets under management (AuM) worldwide (2018-2019 growth rate of 42% and 2016-2019 CAGR³ of 110%)⁴, impact investing represents a very small niche in a global financial market that manages a total assets value of USD 88.7 trillion⁵ (Heredia *et al.*, 2020). Moreover, its full

¹ Zoonotic diseases are any diseases caused by germs that spread from animals to humans.

² The SDGs consist of 17 aspirational goals with 169 targets to be achieved by 2030. These goals and targets are part of the 2030 Agenda for Sustainable Development and focus on ending poverty, protecting the planet, and ensuring prosperity for all (https://sdgs.un.org/goals).

³ Compound Annual Growth Rate.

⁴ The Global Impact Investing Network (GIIN) in its latest "Annual Impact Investor Survey" of June 2020 estimates at USD 712 billion the size of the global impact investing assets under management as at the end of 2019. The year before it was estimated at USD 502 billion. In 2016 the respondents to the GIIN's survey were managing USD 77.4 billion of impact investing assets.

⁵ Data as at the end of 2019.

potential is intrinsically limited by its core characteristic, "additionality", which can only be achieved through alternative investments in private markets (Brest and Born, 2013a; Brest, Gilson and Wolfson, 2018). Alternative investments represent just 16% of the global AuM⁶ (Heredia *et al.*, 2020), and legislation around the world limits investments in this asset class to professional and institutional investors only (e.g., MiFID⁷ II and AIFMD⁸ for the EU).

Nevertheless, impact investing represents the highest impact-oriented approach of a broader investment solution called ethical, or sustainable and responsible investments (SRIs)⁹. This long-term oriented investment solution aims at including a third ethical dimension (ESG¹⁰ factors, ethical principles, or sustainability issues) in the capital allocation process, along with the risk/return trade-off. Although the other SRI strategies achieve a lesser degree of social and environmental impact, they extend to retail investors the possibility to contribute to the growth of ethical finance through their savings.

As at the start of 2018, sustainable and responsible assets under management amounted to USD 30.7 trillion (GSIA, 2018), which was 39% ca. of the global AuM (Heredia *et al.*, 2020). In the last quarter of 2020, SRI funds inflows registered record highs (Hale, 2020a; Silano, 2020) thanks to the changing investors' preferences (Department for International Development, 2019; Morgan Stanley Institute for Sustainable Investing, 2019) and to the better performance of ethical funds compared to their conventional peers during the Covid-19 pandemic (Hale, 2020b; Hildebrand *et al.*, 2020), confirming their superior resilience during financial crises (Gangi and Trotta, 2015). If compared to the impact investing alone, the ethical investment market is more mature and presents a wider offer of investment solutions. These characteristics makes it an appealing ecosystem for retail investors that seek a social and environmental impact along financial returns. Nonetheless, the width of the ethical investing market inevitably arises concerns for greenwashing¹¹. The growing attention towards ESG (Stevens, 2020) and ethical finance may in fact lead asset managers to use the ethical or SRI label as a pretext to attract new subscriptions and get higher fees, thus impairing the ability of retail investors to effectively give purpose to their investments.

Therefore, the present study intends to analyse this controversy with a focus on SRI retail investment products distributed to individual Italian investors, which consist mainly of

⁶ Data as at the end of 2019.

⁷ Markets in Financial Instruments Directive.

⁸ Alternative Investment Fund Managers Directive.

⁹ SRI is used as a synonym of ethical investment. Please refer to section 1.3. of the analysis for further insights on the terminology used with regard to the ethical investing market.

¹⁰ Environmental, Social, and Governance.

¹¹ The Cambridge Dictionary defines greenwash as: "to make people believe that your company is doing more to protect the environment than it really is".

UCITS¹² and open-ended AIFs¹³ (ESMA, 2020). Through an analysis of the top holdings of the selected sample of mutual funds, and through a selection of controversial investments decisions harming the global path towards the achievement of the 17 SDGs, the study will draw conclusions about the presence of greenwashing (if any).

So, the analysis consists of three parts:

- Chapter 1 includes a literature review of the most prominent papers, articles, and studies about ethical finance and ethical investments, in order to get a clear picture of the subject. It presents the Sustainable Development Goals as the predominant framework used by the industry to set impact objectives, measure impact performance, and report on impact results. Lastly, it describes the current status of the Italian ethical investing industry, which will be the focus of the study;
- Chapter 2 describes the methodology used in order to analyse the ethical retail investment products offered to Italian investors and unveil potential greenwashing practices, and includes an analysis of the limitations of the study;
- Chapter 3 comprises the presentation and the discussion of the main findings, and it is followed by a section that closes the discussion.

¹² Undertakings for the Collective Investment in Transferable Securities.

¹³ Alternative Investment Funds.

Chapter 1

Literature review

Finance is defined as the activity of managing money. It is a tool used to achieve an end that can be either speculative or supportive of the real economy. Since the beginning of the third millennium, firstly the dotcom bubble, then the real estate one that led to the global financial crisis, and finally the European sovereign debt crisis have highlighted the possible catastrophic consequences of the speculative use of finance in today's globalised world. A call to a reunion of finance with its core role of supporting and promoting economic activities is stronger than ever. Ethical finance is today's most powerful answer.

1.1. Ethical finance

Although a unique definition of ethical finance does not exist, and terms like social finance, green finance, and value based finance are often used interchangeably, it is worth referring to the pioneering work carried out by Associazione finanza etica (AFE) ¹⁴ in Italy between 1994 and 2004. With its "Ethical Finance Manifesto" (Associazione Finanza Etica, 1998), AFE listed the seven core principles defining ethical-oriented finance:

- 1. It considers all forms of credit as a human right;
- 2. It considers economic efficiency as a part of ethical responsibility;
- 3. It does not consider financial activities aimed only at increasing wealth to be legitimate;
- 4. It is transparent;
- 5. It involves both shareholders and customers in the essential corporate decisions;
- 6. It invests considering socially and environmentally responsible criteria;
- 7. It requires a global and coherent adherence by the management.

It is important to highlight that being a financial activity, ethical finance is not the result of donations or charitable activities. The heart of ethical finance consists in building a sustainable economy, which cares about social relationships and natural resources, respects future generations, and is committed to the improvement of each individual's wellbeing (Messina, 2004). The European Federation of Ethical and Alternative Banks and Financiers (FEBEA), born in 2001 to promote the role of ethical finance in Europe, essentially shares the same AFE's view of ethical finance by pinning the *raison d'etre* of ethical banks in their work for the

¹⁴ AFE stands for Ethical Finance Association. Founded in December 1994, it had been the representative body for the alternative finance players operating in Italy until 2004.

common good, in the right to undiscriminating access to all forms of credit, and in the values of participation and transparency (FEBEA, 2020).

While ethical banks played an essential role in promoting and offering ethical finance products at the turn of the millennium, nowadays ethical financial products are available in the offering of most financial institutions worldwide. The resilience of ethical banks and ethical finance products in delivering equal to higher returns especially in periods of economic downturns (Gangi and Trotta, 2015; Cavallito, Isonio and Meggiolaro, 2020; Hale, 2020b; Hildebrand *et al.*, 2020), and the increasing demand of ethical finance products (Eurosif, 2018a; GSIA, 2018; Department for International Development, 2019; Morgan Stanley Institute for Sustainable Investing, 2019), have inevitably attracted the traditional financial players in this new market segment.

The most popular ethical finance products are microcredit and ethical investments. While the first one was designed as an impactful tool to alleviate poverty (Khandker, 1998) and it is at the core of ethical banks offering, the latter has experienced a wider application in numerous sectors that aim at contributing to societal challenges. The ethical investing market fills the gap existing between traditional finance and philanthropy, allowing investors to achieve competitive financial returns while avoiding harm, benefitting stakeholders, and contributing to solving the major societal issues (Impact Management Project, 2018). In other words, it places itself in the middle of a spectrum of capital that ranges from products focused only on financial returns to products focused only on creating positive societal impacts (Table 1).

Table 1. The Spectrum of Capital.

Traditional/ Financial-only	Responsible	Sustainable		Impact		Philanthropy/ Impact-only
Delivering competitive financial returns						
	Mitigating Env	ironmental, Soc	ial, and Governa	ance (ESG) ris	ks	
		Pursuing Envir	onmental, Socia	l and Governa	ance opportuni	ties
			Focusing on m	easurable hig	h-impact solut	ions
Limited or no regard for environmental, social, or governance (ESG) practices	Mitigate risky ESG practices in order to protect value	Adopt progressive ESG practices that may enhance value	Address societal challenges that generate competitive financial returns for investors	Address societal challenges where returns are as yet unproven	Address societal challenges that require a below- market financial return for investors	Address societal challenges that cannot generate a financial return for investors

ETHICAL INVESTMENTS

Note. Adapted from Bridges Ventures (2015, p. 3).

1.2. A brief history

Today's ethical finance products recall a history of application of religious principles to financial choices. In fact, its roots can be found in the medieval *Monti di Pietà* operated by the mendicant orders of Franciscans and Dominicans (Weber and Remer, 2011), which were involved in granting credits to the poorest and the local social businesses. These entities are the precursors of the European Saving Banks (in Italy Cassa di Risparmio, in Spain Caja o Caixa, in Francia Caisse d'Epargne, and in Germany Sparkasse) (Cavallito, Isonio and Meggiolaro, 2019) and, later, of the Cooperative Banks (which made their entrance in the European financial market following the intuition of the Rochdale Society of Equitable Pioneers, founded in 1844 (Fairbairn, 1994)). In the 1700s, two Christian movements, the Methodists and the Quakers, gave birth to the modern exclusionary investment screening strategies. The Quakers were opposing war and slavery (Schueth, 2003), while the Methodists were following their founder's teaching which said that investors must not place any money in business practices that might harm their neighbour (Welsey, no date). In Islamic countries, the principles contained in the Shariah started to be embedded in the financial choices of institutions in the 60s with the creation of the first Islamic bank in Egypt by the economist Ahmad El-Naggar (Islamic Finance Foundation, 2015; Ougoujil and Rigar, 2018).

These deep religious origins of ethical finance are evident in today's application of "sin screens" that generally capture companies exposed to alcohol, gambling, pornography, and tobacco. The first mutual fund to apply a "sin screen" was the Boston-based Pioneer Fund, launched in 1928 by the Federal Council of Churches of Christ in America, and reserved for sympathizers of the movement (Ougoujil and Rigar, 2018). It is considered to be the father of all sustainable and responsible investing funds.

The modern roots of ethical finance are tied to the political climate of the 1960s (Schueth, 2003). The anti-Vietnam war movement for civil-rights led to the creation, in 1971, of the Pax World Fund, the first ethical finance product available to any individual investor. The fund was intended for investors who were keen to avoid investments in companies that were profiting from the Vietnam War. Three years later, in 1974, the first modern European ethical bank was launched under the name of GLS Bank.

Ethical finance products started to lose their connection with religion and endorsed civil rights movements (equality for women, labour issues, anti-apartheid and anti-nuclear fights) and environmental issues (in 1970, 20 million Americans were demonstrating for the first ever Earth Day (Earthday.org, 2020)). Indeed, adjectives like "social", "sustainable", "responsible", and "environmental" started to be used to define the financial products endorsing these new societal challenges. The environment became the core concern of ethical finance strategies in

the 1980s, with the Bhopal, Chernobyl, and Exxon Valdez disasters coming to the attention of people all around the world. This growing attention towards ethical investments brought to the launch of the United States Sustainable Investment Forum (US SIF) in 1984, which constituted the first initiative talking about ethical finance products globally. Its European equivalent, the European Sustainable Investment Forum (Eurosif), was only founded 18 years later, in 2002.

The social and environmental focus of the ethical finance industry started to be propelled by the United Nations (UN) through different initiatives like the Earth Summits (since 1972), the Brundtland Commission that defined for the first time the term "sustainable development" (Brundtland, 1987), and the Millennium Development Goals. Under the guide of Kofi Annan, in 2000, the UN launched one of the most important projects for the diffusion of this new financial paradigm, the Global Compact. Built on the Sullivan Principles¹⁵ and on Elkington's "triple bottom line"¹⁶, its aim is to encourage sustainable and socially responsible policies in businesses worldwide. In 2004, the initiative produced the "Who Cares Wins" report, which gave birth to the term "ESG" and recommended that embedding environmental, social and governance factors in capital markets makes good business sense and leads to more sustainable markets and better outcomes for societies (Knoepfel, 2004). ESG integration immediately became the backbone of modern ethical finance products and fostered the launch of the Principles for Responsible Investment (PRI) in 2006.

In 2007, the term "impact investing" was coined at a convention held in Italy by the Rockefeller Foundation. A new ethical finance product, capable of combining financial returns and philanthropy, began its journey inside the worldwide financial markets, supported by the launch of the Global Impact Investing Network (GIIN) in 2009. Since then, many asset managers and investors started to look beyond SRIs to seek out investments that prioritize a positive impact. This forward-thinking approach is again supported by the UN, that created a key framework for setting impact investing focus areas and objectives in 2015, the Sustainable Development Goals (SDGs).

In 2018, the European Commission released its action plan on financing sustainable growth, strengthening, even more, the forefront position occupied by Europe in the ethical finance industry. At the end of 2020, the plan is still in development and aims at establishing a clear

¹⁵ The Sullivan Principles (initially known as the "principles of equal rights") refer to a set of principles proposed by Leon Sullivan in 1977. Sullivan was an American Baptist minister, civil rights leader, and member of the board of General Motors. The principles were born as a result of Sullivan's opposition to the involvement of General Motors in South Africa during apartheid. The six principles developed by Sullivan included the elimination of workplace discrimination, pay equality, education, and workers' quality of life.

¹⁶ John Elkington coined the term "triple bottom line" in 1994 (Elkington, 2018) and further developed in the book "Cannibals with Forks: The Triple Bottom Line of 21st Century Business", published in 1997. The triple bottom line is an accounting framework that aims at considering environmental and social parameters along with profit. It is also called the 3P model to recall the name of the three bottom lines: profit, planet, and people.

taxonomy for sustainable activities and EU green bond standards, fostering investments in sustainable projects, incorporating sustainability in financial advice, attenuating short-termism in capital markets, and strengthening transparency in sustainability disclosures.

1.3. Ethical investment

When it comes to identifying ethical investments it is easy to get confused due to the lack of common definitions that hampers the industry. This heterogeneity can be found at the terminological, definitional, strategic, and practical levels (Sandberg *et al.*, 2009). While there is some agreement at the definitional level, Sandberg, Juravle, Hedesström and Hamilton (2009) argue that there can be three possible explanations on the heterogeneity that pervade the other levels: cultural and ideological differences, differences in values, norms and ideology, and the market setting.

With regard to the different terminologies used by the industry, it is possible to encounter terms like "ethical", "green", "natural", "responsible", "social", "socially responsible", "sustainable and responsible", and "values-based" investing, all used to indicate a new kind of investment approach that integrates certain non-financial concerns (such as ethical, social, or environmental) into the capital allocation process. The European Commission is working on the standardization of the industry's taxonomy as a part of its action plan on financing sustainable growth.

In order to gain a clearer picture, Table 2 compares the terminology and definitions used by four key institutions that represent the players operating in the ethical investment market.

Table 2. Comparison of terms and definitions used for ethical investment.

Institution	Terminology	Definition
Eurosif	Sustainable and Responsible Investment	Long-term oriented investment approach which integrates 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 in order to better capture long term returns for investors and to benefit society by influencing the behaviour of companies.
gsia ¹⁷	Sustainable Investment	An investment approach that considers environmental, social, and governance (ESG) factors in portfolio selection and management.

¹⁷ The Global Sustainable Investment Alliance (GSIA) is a collaboration of sustainable investment organizations around the world. Its members are the Eurosif, the US SIF, the JSIF (Japan Sustainable Investment Forum), the RIAA (Responsible Investment Association Australasia), the RIA Canada (Responsible Investment Association), the UKSIF (UK Sustainable Investment and Finance Association), and the VBDO (Dutch Association of Investors for Sustainable Development).

Institution	Terminology	Definition
PRI ¹⁸	Responsible Investment	A strategy and practice to incorporate environmental, social, and governance (ESG) factors in investment decisions and active ownership. It complements traditional financial analysis and portfolio construction techniques.
EFAMA ¹⁹	Responsible Investment	Any method of selecting investments where both financial and non-financial considerations, such as standards, ethical or social norms are taken into consideration. It is an approach where an asset manager considers ESG issues when analysing companies and making investment decisions.

Table 2 highlights the substantial agreement regarding the definition of what ethical investment is, regardless of the terminology used to identify it. In this study, the term "sustainable and responsible investment", used to indicate ethical investments, will be preferred as it is also used by Assogestioni²⁰ in the database of SRI retail investment funds offered in Italy that will be analysed in Chapter 3.

The ethical investment approach identifies a group of different strategies, which classification is again heterogeneous. In Table 3 the classification used in the study is presented in comparison with the classification made by the institutions considered in Table 2.

Table 3. Comparison of different classification of ethical investing strategies.

Classification used in the analysis	Eurosif	GSIA	PRI	EFAMA
Negative screening	Exclusion of holdings from investment universe	Negative/ exclusionary screening	Negative/ exclusionary screening	Negative screening or Exclusion (type of screening)
Norms-based screening	Norms-based screening	Norms-based screening	Norms-based screening	Norms based approach (type of screening)
Best-in-class	Best-in-Class investment selection	Positive/best-in- class screening	Positive/best-in- class screening	Best-in-Class (type of screening)
ESG integration	ESG integration	ESG integration	Integration of ESG issues	Integration of RI criteria

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¹⁸ The Principles for Responsible Investments (PRI) is an UN-supported international network of investors that work together to promote responsible investments and the implementation of its six aspirational principles.

¹⁹ The European Fund and Asset Management Association (EFAMA) represents the European investment management industry.

²⁰ Assogestioni is the Italian equivalent of EFAMA. It represents more than 290 members among Italian asset managers, foreign asset managers operating in Italy, banks, and insurance companies.

Classification used in the analysis	Eurosif	GSIA	PRI	EFAMA
Sustainability themed	Sustainability themed investment	Sustainability themed investing	Sustainability themed investing	Thematic investment (type of screening)
Engagement and voting	Engagement and voting on sustainability matters	Corporate engagement and shareholder action	Active ownership and engagement (three types): Active ownership, Engagement, Proxy voting and shareholder resolutions	Active ownership or engagement
Impact investing	Impact investing	Impact/ community investing	-	-
Passive screening	-	-	-	Passive screening (type of screening)

Each investment strategy is able to achieve different results in terms of societal impact and competitive financial returns, covering different places in the spectrum of capital (Table 4).

Table 4. Ethical investing strategies in the Spectrum of Capital.

Traditional/ Financial-only	Responsible	Sustainable		Impact		Philanthropy /Impact-only
Delivering compe	titive financial re	eturns				
	Mitigating Env	ironmental, Soc	ial, and Governa	nce (ESG) risk	(S	
		Pursuing Envir	onmental, Socia	l and Governa	ance opportuni	ties
			Focusing on mo	easurable hig	h-impact soluti	ons
Limited or no regard for environmental, social, or governance (ESG) practices	Mitigate risky ESG practices in order to protect value	Adopt progressive ESG practices that may enhance value	Address societal challenges that generate competitive financial returns for investors	Address societal challenges where returns are as yet unproven	Address societal challenges that require a below- market financial return for investors	Address societal challenges that cannot generate a financial return for investors
	Negative screening, ESG integration, Norm-based screening, Passive screening	Best-in-Class	Sustainability themed	pact investin	g	

Note. Adapted from Bridges Ventures (2015, p. 3).

Engagement and voting on sustainability matters is not included in Table 4 as it can be an investing strategy more or less impact-oriented depending on the degree of engagement and on the topics and actions covered by the ongoing dialogue between the investor and the investee (UN PRI, 2018).

1.3.1. Negative screening

Negative screening involves the exclusion from the fund's investment universe of certain companies, sectors, countries involved in controversial activities based on specific criteria. It is the oldest SRI strategy, dating back to the beginning of the 18th century, when religious groups, such as Quakers and Methodists, started to align their investment choices with their moral codes. At that time, exclusions were driven by the avoidance of "sin stocks". Nowadays exclusion criteria include also companies and industries threatening the environment and human rights.

Negative screening is often criticized and not considered an SRI strategy when practiced alone (De Colle and York, 2009; Eurosif, 2018a). In fact, divestment strategies could have the sole effect of reallocating controversial assets from ethical to more indifferent investors, without affecting the companies operating in the targeted controversial sector. As Schroders highlights in its 2019 report titled "Divestment - does it drive real change?" and as Eurosif remarks in its 2018 European SRI Study, divestment strategies are able to achieve a positive societal impact if they are supported by engagement and voting practices that put a special focus on policymakers and on the supply of capital (banks and bondholders play a key role in allowing companies operating in controversial sectors to continue their operations (Schroders, 2019)).

In Europe, the top exclusion criteria are controversial weapons, tobacco, all weapons, gambling, pornography, nuclear energy, alcohol, GMOs, and animal testing (Eurosif, 2018a).

1.3.2. Norms-based screening

Norms-based screening allows asset managers to select companies complying with minimum standards of business practices based on international norms, such as the OECD Guidelines for Multinational Enterprises, the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, and most commonly the UN Global Compact (Eurosif, 2018a). As for the negative screening approach, the effective societal impact of portfolio divestments is debated.

1.3.3. Best-in-class

The Best-in-class approach positively screens the fund's investment universe by picking companies that have the best ESG performance relative to their industry peers. According to

the Autorité des marchés financiers (2015), there can be three possible positive screening strategies:

- Best-in-class: select the best issuers in each sector:
- Best-in-universe: select the best issuers in the investment universe;
- Best-effort: select only issuers that have made the best sustainable development effort.

This approach requires a deeper effort for the asset manager if compared to the negative screening approaches and it is able to grant the investor a portfolio of investments in the best ESG performing companies.

1.3.4. ESG integration

The ESG integration approach results in the systematic and explicit inclusion of environmental, social, and governance factors into the financial analysis. This strategy is the leading ethical investment approach outside Europe and the fastest growing one inside Europe (Eurosif, 2018a). Its growing importance in the worldwide financial markets is undeniable and highlights the need for more clarity in the parameters used when integrating ESG factors. While European policymakers are working on the matter (with the EU action plan on financing sustainable growth), the freedom that asset managers have in developing their in-house approaches to ESG integration increases the retail investors' possible exposure to greenwashing practices.

1.3.5. Sustainability themed

Sustainability themed strategies select assets that are specifically related to certain sustainability themes such as clean energy, climate change, food, circular economy, and global health. The focus on a particular theme makes these products really interesting for investors who seek to address specific societal challenges without giving up on the possibility of obtaining competitive financial returns.

The launch of the 2030 Sustainable Development Goals by the UN in 2015 has boosted investors' interest in thematic investments. Between 2016 and 2018, the global AuM of sustainability themed investments marked a record high growth of 269% (GSIA, 2018).

1.3.6. Engagement and voting

The engagement and voting approach aims at exploiting the shareholder power deriving from the ownership of the stocks in the fund's portfolio to influence corporate behaviour towards the adoption of sustainable practices. It includes direct corporate engagement, filing or co-filing shareholder proposals, and proxy voting.

This approach is at the heart of active management as it requires investors to constantly monitor the companies they invest in. The results achievable by shareholder activism can be numerous and impactful, as demonstrated by Marquardt and Wiedman (2016) with regard to gender diversity on corporate boards, and Grundfest (1993) and Del Guercio, Seery and Woidtke (2008) with regard to "just vote no" campaigns.

1.3.7. Impact investing

Impact investing is an investment strategy that strictly aims at solving social or environmental problems by directing capital to traditionally underserved individuals or communities, and financing businesses with a clear social and/or environmental purpose. The GIIN defines impact investments as "investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return", and assigns to these investments four key characteristics (GIIN, 2019):

- intentional contribution to social and environmental solutions;
- financial returns ranging from below-market rates to market rates;
- possibility of investing across all asset classes;
- measurement and reporting of the underlying assets' social and environmental impacts.

Intentionality and the expectation of measurable social impacts differentiate impact investing from the other SRI strategies, while the expectation of financial returns distinguishes it from philanthropy.

Some argue that a core characteristic of impact investing lies in "additionality" (Brest and Born, 2013a; Brest, Gilson and Wolfson, 2018; Eurosif, 2018a). Brest and Born (2013) and Brest, Gilson and Wolfson (2018) assert that investments produce social impact if and only if the investee company produces the intended social outcomes (enterprise impact) and the investment increases the production of those outcomes (additionality or investment impact). With this definition, the authors want to stress the fact that if asset managers want to demonstrate that their investments have had an impact, they should demonstrate as well the counterfactual, that is what would have happened if their investment had not occurred. This school of thought leads to the conclusion that it is impossible to produce a social impact by trading stocks in the secondary public markets. Therefore, ethical investors who seek to affect the outputs of public companies should concentrate their efforts on engagement and voting strategies (Brest, Gilson and Wolfson, 2018).

Due to the fact that the concept of "additionality" would impair the possibility of investing with impact across all asset classes, Amit Bouri (2013), CEO and co-founder of the GIIN, argues that proving additionality, that is every impact investment must go beyond what

mainstream investors bring in terms of impact, is unrealistic, and intentionality, rather than additionality, should characterize impact investors.

Regardless of the discussion on additionality, impact investments are flourishing in private markets and publicly traded debt markets (Hand *et al.*, 2020) also thanks to the recent launch of instruments like green bonds, social bonds, and social impact bonds (SIBs).

As for the other ethical investing strategies, concerns about greenwashing (or impact-washing/purpose-washing (Findlay and Moran, 2019) with regard to impact investing) are strong between market participants. The GIIN in its 2020 Annual impact investor survey recognized impact-washing as the greatest challenge that the market will face over the next five years.

1.3.8. Passive screening

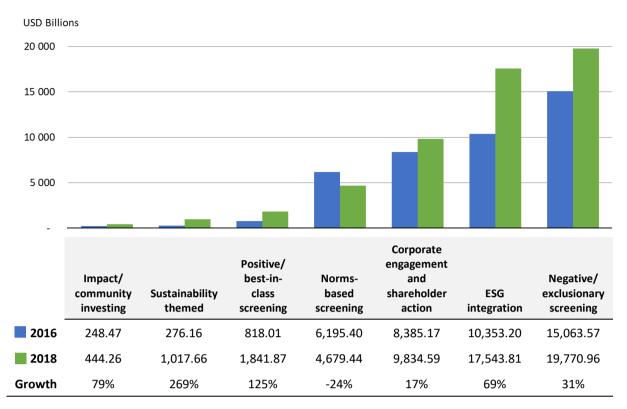
The passive screening approach consists in replicating the performance of an ethical, SRI, or ESG index. The rising adoption of these indices (MSCI alone provides more than 1,500 ESG indices (MSCI, 2020)) is boosting the market of sustainable ETF²¹ assets, which is expected to grow to USD 400 billion by 2028 (Kjellberg, Pradhan and Kuh, 2019). The trading of ethical ETFs in the major public markets is another sign of the global rising popularity of ethical finance products.

The global importance of SRI investments is nowadays undeniable: at the end of 2018, with a global AuM of USD 30.7 billion (GSIA, 2018), they represented 39% ca. of the global AuM (Heredia *et al.*, 2020). The investment strategy leading the market of ethical investments is the negative screening approach, with an AuM of almost USD 20 trillion (Figure 1). Its success is in line with the historical background of ethical investments, which were born by excluding stocks involved in industries that were not in line with religious principles (Ougoujil and Rigar, 2018). Figure 1 suggests that the ESG integration approach is becoming an essential part of SRIs, displaying the highest absolute growth and getting increasingly closer to negative screening. Although Best-in-class, sustainability themed, and impact investing approaches are much lower in size, they all show impressive growth rates.

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²¹ Exchange-traded funds.

Figure 1. Global AuM in USD billions by ethical investing strategy.



Note. Adapted from Global Sustainable Investment Alliance (2018, p.10). The sum of the AuM of each strategy differs from the global AuM as multiple strategies can be pursued simultaneously.

Europe manages most of the global ethical investing assets, nearly a half, followed by the US and Japan, which was the fastest growing region as at the end of 2018 (GSIA, 2018). As Sandberg, Juravle, Hedesström and Hamilton (2009) argue, a regional heterogeneity in the use of ethical investing strategies exists and can be observed in Figure 2. In Europe, engagement and voting on sustainability matters is widely used by fund managers, mostly in the UK (Eurosif, 2018a) where public firms are historically more contestable and shareholders activism can be more effective. Most British asset managers adhere to the UK Stewardship Code published by the Financial Reporting Council in 2012 and revised in 2020 to extensively include ESG matters. ESG integration into the investment process is the leading approach used by asset managers outside Europe, even though it is growing rapidly in Europe as well (Eurosif, 2018a).

Negative/exclusionary screening **ESG** integration Corporate engagement and shareholder action Norms-based ■ Europe screening Positive/best-in-class ■ United States screening Japan Sustainability themed Canada Impact/community Australia/New Zealand investing 5 000 10 000 15 000 20 000

Figure 2. Regional AuM in USD billions by ethical investing strategy.

Note. Adapted from Global Sustainable Investment Alliance (2018, p.10).

Even though the ethical investing market is increasing at double digits rates each year since GSIA published its first report in 2012, it needs the support of retail investors to ensure it becomes truly mainstream. In fact, considering the EU alone, households' savings represent over 40% of total financial assets (High-Level Expert Group on Sustainable Finance, 2018).

Figure 3. Global ethical investing asset breakdown by type of investor.

USD Billions

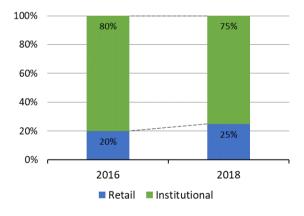
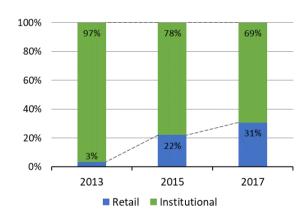


Figure 4. European ethical investing asset breakdown by type of investor.



Note. Adapted from Global Sustainable Investment Alliance (2018, p.12).

Note. Adapted from Eurosif (2018, p.76).

Figure 3 and Figure 4 show the share of assets detained by institutional and retail investors. It is observable how retail involvement in the market is strongly increasing. In addition, according to a 2019 survey by the Morgan Stanley Institute for Sustainable Investing, 85% of US individual investors are interested in pursuing positive social and/or environmental impact through their investments, 95% when only millennials are considered (Morgan Stanley Institute for Sustainable Investing, 2019). Again, a 2019 survey by PwC in collaboration with the UK

Department for International Development found that 75% of British individual investors would like to achieve good for people through their investments, and 70% would like to achieve good for the planet (Department for International Development, 2019).

The rising participation of retail investors highlights the exigency of regulations that protect their needs and interests in a market that is heterogeneous in terminology, strategies, and practices. The current state of ethical investments may be misleading to retail investors as denominations such as "SRI", "sustainable", and "ESG" are mostly self-assessed (High-Level Expert Group on Sustainable Finance, 2018). A standardized disclosure of impact results is still to be achieved (Hand et al., 2020), and national legislations contain no specific requirements for financial advisers to collect retail investors' preferences about the sustainable impact of their investments. The EU, which is the worldwide leader in sustainable investing and it is at the forefront of regulatory reforms in the field, is trying to tackle these issues: (i) EU Regulation 2020/852 (Taxonomy Regulation) establishes a European common language to identify to what degree economic activities can be considered environmentally sustainable, (ii) EU Regulation 2019/2088 (Sustainable Finance Disclosures Regulation) lays down harmonised rules for financial market participants and financial advisers on transparency with regard to the integration of sustainability in their processes and on disclosure of sustainability-related information, and (iii) the MiFID II's delegated act will soon incorporate sustainability requirements associated with financial advice (European Commission, 2020). All of these rules are intended for protecting retail investors and preventing asset managers from greenwashing.

In addition to these initiatives, the EU is as well working on the development of the EU Ecolabel and its extension to financial products to increase access to ethical investment solutions by retail investors (Hessenius *et al.*, 2020). Such labels currently exist in Europe at a national or international level. Table 5 lists the prominent ones and the number of funds that have obtained the respective label as at the end of the first quarter of 2020.

Table 5. Labels for European sustainable funds.

Label	Country	Governance	Type of label	Funds
SRI Label	France	Standalone stakeholder committee, supported by the Ministry of Finance	SRI/ESG investment process	395
Greenfin Label	France	Standalone stakeholder committee, chaired by the Ministry for the Ecological and Fair Transition	Thematic investments and ESG criteria. Climate exclusions	19

Label	Country	Governance	Type of label	Funds
FNG-Siegel	Germany, Austria, and Switzerland	Expert committee under the stewardship of FNG ²²	SRI/ESG investment process with climate exclusions. Point system	104
Towards sustainability	Belgium	Central Labelling Agency	Quality standard combining requirements on the investment process and exclusions	355
Umweltzeichen	Austria	Austrian Federal Ministry for the Environment	SRI/ESG investment process with climate exclusions. Point system	119
Nordic Swan Ecolabel	Nordic countries	Nordic Ecolabelling Board, on a mandate from Nordic governments	SRI/ESG investment process with climate exclusions & green reporting. Point system	33
LuxFLAG ESG	Luxembourg	LuxFLAG ²³	SRI/ESG investment process	118
LuxFLAG Environment	Luxembourg	LuxFLAG	Thematic investments and ESG criteria	5
LuxFLAG Climate Finance	Luxembourg	LuxFLAG	Thematic investments and ESG criteria. Climate exclusions	1

Note. Adapted from Novethic (2020, pp. 3,11).

1.4. The Sustainable Development Goals

In 1983 the United Nations launched the World Commission on Environment and Development, chaired by Gro Harlem Brundtland, with the aim of gathering information about the most critical issues of environment and development, formulate solutions, and strengthen international cooperation on those issues (Brundtland, 1987). The work done by the Commission resulted in the release of the report "Our Common Future" in 1987 (also called Brundtland report), which defined for the first time the term "sustainable development" as the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987).

In 1992, the Brundtland report strongly influenced the United Nations Conference on Environment and Development (also called the Earth Summit) that took place in Rio de Janeiro. There, 178 governments adopted the Agenda 21, which addressed the pressing problems of those days and aimed at preparing the world for the challenges of the next century by creating a global partnership for sustainable development (UN, 1992, 2020a).

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²² FNG is the German, Austrian, Liechtensteiner, and Swiss Sustainable Investment Forum.

²³ The Luxembourg Finance Labelling Agency (LuxFLAG) is a labelling agency with founding members from the financial sector in Luxembourg.

The journey towards a more sustainable present and future, strongly promoted by the United Nations, continued with another important stepping stone: the adoption by world leaders of the United Nations Millennium Declaration in 2000. The declaration set 8 sustainable development goals to be reached by 2015, which became known as the Millennium Development Goals (MDGs) (Table 6). In 2015 the UN released its final report on the MDGs, which highlighted the remarkable improvements achieved and acknowledged the gaps that still remained (UN, 2015a).

Table 6. The Millennium Development Goals.

Millenniu	um Development Goals	Targ	ets
<u></u>	Eradicate extreme poverty and hunger	1.B.	Halve, between 1990 and 2015, the proportion of people whose income is less than USD 1 a day. Achieve full and productive employment and decent work for all, including women and young people. Halve, between 1990 and 2015, the proportion of people who suffer from hunger.
1 2	Achieve universal primary education	2.A.	Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
Q ³	Promote gender equality and empower women	3.A.	Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.
₩ 4	Reduce child mortality	4.A.	Reduce by two thirds, between 1990 and 2015, the underfive mortality rate.
5	Improve maternal health		Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio. Achieve, by 2015, universal access to reproductive health.
6	Combat HIV/AIDS, malaria and other diseases	6.B.	Have halted by 2015 and begun to reverse the spread of HIV/AIDS. Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.
₹ 7	Ensure environmental sustainability	7.B. 7.C.	Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources. Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss. Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers.

Millenniu	ım Development Goals	Targets	Targe
8	Develop a global partnership for development	 8.A. Develop further an open, rule-based, predictable, non-discriminatory trading and financial system. 8.B. Address the special needs of the least developed countrie landlocked developing countries and small island developing States. (Target grouped with target 8.C) 8.D. Deal comprehensively with the debt of developing countries. 	8.B.
		8.E. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.	8.E.
		8.F. In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.	8.F.

Note. Sourced from United Nations (2000, 2015a).

The MDGs prepared the global community to a much stronger commitment to sustainable development represented by the adoption of the 2030 Agenda for Sustainable Development, signed by all United Nations Member States in 2015. The Agenda represents "a plan of action for people, planet and prosperity" (UN, 2015b) and sets 17 sustainable development goals addressing the global challenges that the world faces (Table 7). The main difference between the MDGs and the SDGs lies in their determination: while the MDGs were determined by technical experts at the headquarter of the United Nations, the SDGs are the result of a long process involving all countries and different organizations.

Table 7. The Sustainable Development Goals.

Sustaina	ble Development Goals	Description
1 FOYERTY	No poverty	"End poverty in all its forms everywhere".
<i></i> #¥ † #₩		The first SDG calls for the eradication of poverty in all its forms. It comprises a total of 7 targets that aim at building a world where basic standards of living and social protection benefits are granted to everyone everywhere, including the poorest and most vulnerable. It asks for equal rights and equal access to economic and natural resources.
2 FERD HUMGER	Zero hunger	"End hunger, achieve food security and improved nutrition and promote sustainable agriculture".
		The goal sets 8 targets to be achieved in order to end hunger and malnutrition and ensure access to safe, sufficient and healthy food. In order to realise the goal, it will be key to address trade restrictions, improve commodity markets, promote sustainable food production systems, and invest in agricultural research and development.

Sustainable Development Goals

Description



Good health and well-being

"Ensure healthy lives and promote well-being for all at all ages".

SDG 3 and its 13 targets focus on health and well-being for all at all ages. It aims at achieving universal health coverage, improving maternal and child health, stopping the spread of communicable diseases and reducing mortality of non-communicable diseases, promoting mental health, and supporting research and health financing.



Quality education

"Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

The fourth goal seeks to ensure the quality of education through all stages of life and equal access for everyone, increase the number of young people and adults having relevant skills for financial success, and achieve universal literacy and numeracy. It consists of 10 different targets.



Gender equality

"Achieve gender equality and empower all women and girls".

SDG 5 sets 9 targets focusing on gender equality. It aims to end all forms of discrimination, violence and any harmful practices against women and girls, promote empowerment of women, call for policies and legislation strengthening gender equality, and ensure full participation of women in leadership and decision-making.



Clean water and sanitation

"Ensure availability and sustainable management of water and sanitation for all".

The goal calls for ensuring safe and affordable drinking water to everyone, providing access to sanitation and hygiene, and ending open defecation. It focuses as well on improving water quality, water-use efficiency, and freshwater supplies. It includes 8 targets.



Affordable and clean energy

"Ensure access to affordable, reliable, sustainable and modern energy for all".

With its 5 targets, the SDG 7 calls for ensuring universal access to modern and affordable energy, promoting research and investments in clean energy, increasing the share of renewable energy, and improving energy efficiency.



Decent work and economic growth

"Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all".

The eighth SDG highlights the importance of achieving sustainable economic growth and high levels of economic productivity and innovation for the creation of productive employment and decent work for all women and men. The 12 targets included in this SDG focus as well on youth employment, modern slavery, human trafficking, child labour, access to banking and finance, and the promotion of labour rights and safe and secure working environments.

Sustaina	ble Development Goals	Description
9 BOUSTRY, HARVATION AND INFRASTRUCTURE	Industry, innovation and infrastructure	"Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation".
		SDG 9 promotes resilient and sustainable infrastructure and inclusive and sustainable industrialisation. By enhancing research and innovation, it aims at upgrading infrastructures with increase resource-use efficiency and adoption of clean and environmentally sound technologies. It consists of 8 targets.
10 REDUCED INEQUALITIES	Reduced inequalities	"Reduce inequality within and among countries".
√ ₩		The 10 targets identified by the UN to reduce inequalities represent a call for countries to encourage assistance and financial flows to nations where the need is greatest and ensure their inclusion in international decision-making. This SDG aims to promote equal opportunities and reduce inequalities, also by strengthening global financial markets and well-managed migration policies.
11 SUSTAINABLE CHIES AND COMMUNITIES	Sustainable cities and communities	"Make cities and human settlements inclusive, safe, resilient and sustainable".
		SDG 11 represents a plan to renew cities and communities. Its 10 targets aim to realise human settlements that are safe, affordable, and inclusive, with universal access to basic services and green public spaces. Cities must reduce their environmental impact and improve their air quality and waste management.
MANUAL MODERNION	Responsible consumption	"Ensure sustainable consumption and production patterns".
CO	and production	The twelfth SDG consists of 11 targets that seek to achieve sustainable management and efficient use of natural resources, reduce food waste, minimize the impacts of production wastes on human health and on the environment, and promote recycling, responsible consumption, and sustainable production methods.
13 симат	Climate action	"Take urgent action to combat climate change and its impacts".
		The goal seeks to fully operationalize the Green Climate Fund set up by the 2010 United Nations Climate Change Conference. With its 5 targets, it aims to strengthen nations' resilience and adaptive capacity to climate-related hazards and natural disasters, and increase awareness on climate change mitigation, adaptation and impact reduction.
14 UFF BELOW WHER	Life below water	"Conserve and sustainably use the oceans, seas and marine resources for sustainable development".

markets for small-scale artisans.

SDG 14 and its 10 targets seek to reduce marine pollution and the impacts of ocean acidification, protect and restore

ecosystems, promote sustainable fishing, and conserve coastal and marine areas. This goal prohibits certain forms of fisheries subsidies and aims at providing access to marine resources and

Sustaina	ble Development Goals	Description
15 INF	Life on land	"Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss".
		The fifteenth goal focuses on the sustainable use of terrestrial, inland-water, and mountain ecosystems. Its 12 targets include efforts to halt deforestation and increase afforestation and reforestation, combat desertification, halt the loss of biodiversity and protect threatened species.
16 Macs justice and strong institutions	Peace, justice and strong institutions	"Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels".
		The goal calls for peaceful and inclusive societies based on reduced forms of violence, transparent institutions, legal identity for all, and non-discriminatory laws. The 12 targets aim to end abuse, exploitation, and trafficking, ensure equal access to justice for all, reduce corruption and bribery, and promote the rule of law at the national and international levels.
17 PARTHERSHIPS FOR THE GRAALS	Partnerships for the goals	"Strengthen the means of implementation and revitalize the global partnership for sustainable development".
		The last SDG is the richest in the number of targets, which are 19. It highlights the importance of global macroeconomic stability, the need to mobilise financial resources for developing countries, and enhance international cooperation on science, technology, innovation, and knowledge sharing.

Note. Sourced from United Nations (2015b).

The 2020 SDGs report highlights that, without considering the effects of Covid-19, the world was not on track to meet the goals by 2030. The report says:

Some gains were visible: the share of children and youth out of school had fallen; the incidence of many communicable diseases was in decline; access to safely managed drinking water had improved; and women's representation in leadership roles was increasing. At the same time, the number of people suffering from food insecurity was on the rise, the natural environment continued to deteriorate at an alarming rate, and dramatic levels of inequality persisted in all regions. Change was still not happening at the speed or scale required. (UN, 2020b)

The Covid-19 pandemic is making the achievement of the SDGs by 2030 even more challenging: health systems have been almost driven to the brink of collapse, students all around the world have been out of school for months, 71 million people are being forced back into extreme poverty, the world is facing the worst recession in generations, and existing inequalities and injustices have been growing since (UN, 2020b). The pandemic was able to turn back decades of progress in some areas.

The compelling evidence that the Covid-19 pandemic and the subsequent global crisis have been indulged by unsustainable practices (Chivian and Bernstein, 2008; Caminade *et al.*, 2014; Lowe *et al.*, 2018; Fornace *et al.*, 2019; de Wit, Freschi and Trench, 2020; Jeffries, 2020)

acknowledges the need for a strong wake-up call. Financing the SDGs represents the highway to greener, more inclusive economies, and stronger, more resilient societies.

1.4.1. Financing the SDGs

The financing gap to achieve the SDGs by 2030 in developing countries is estimated to be USD 2.5 trillion per year (UNCTAD, 2014).

Despite a global financial market that manages USD 88.7 trillion (Heredia *et al.*, 2020), of which USD 30.7 trillion are invested in sustainable and responsible assets (GSIA, 2018), the gap is still to be covered and the Covid-19 pandemic is making it even more challenging. These numbers highlight the problem of channelling available finance towards sustainable development and therefore towards products that have an effective impact on the most important societal issues.

Ethical finance products and strategies, with their different degree of impact (Table 4), are consistent with the SDGs, but need to be improved and scaled up in order to achieve stronger outcomes (Eurosif, 2018b). The ethical investing strategy that presents the best characteristics for committing capital to the attainment of SDGs is impact investing (Eurosif, 2018b; UNDP, 2020). Through the use of instruments like green bonds, social bonds, and social impact bonds (SIBs), impact investing is able to generate measurable social and environmental impacts. Financing the SDGs solicits a long-term perspective that is embedded in ethical finance and expressed by continuous stewardship and engagement. An active engagement and voting approach enables investors to monitor the progress and the commitments to SDGs of companies in their portfolio (Eurosif, 2018b). Best-in-class approaches and sustainability themed investing represents other two possible investment strategies in the hands of SDG investors: the first one allows investors to screen the best companies that comply with a set of specific performance indicators which are in line with the SDGs, the latter allows investors to focus on investment themes associated to SDGs (Eurosif, 2018b).

Even though these ethical investing approaches could be able to move capital from traditional investing practices to SDG-aligned ones, allowing investors that are keen on having a societal impact to achieve their objective, the market is lacking standardised principles for measuring and reporting impact. Resolving this issue will represent a turning point, both for increasing the flow of private investments towards the financing of SDGs and for limiting greenwashing practices by asset managers that are entering the ethical finance market with the sole aim of gathering new capital from socially responsible investors that lack the knowledge and the tools to detect such practices (du Toit, Shah and Wilson, 2017; Guterres, 2019).

Impact measurement and reporting frameworks are used for three primary purposes: to set impact objectives, measure impact performance, and report on impact results (Hand et al., 2020). Due to the wide array of impact goals that can be achieved and the market need for standardization and comparability, these frameworks must be both customizable and standardized. One decade ago, in 2010, the first annual survey produced by the GIIN found that 85% of respondents were overcoming this trade-off by using their own proprietary frameworks (O'Donohoe et al., 2010). In their last annual survey, in 2020, the results have completely evolved and found that 89% of respondents use external frameworks for impact measurement and reporting (Hand et al., 2020). The SDGs alone have played a major part in this evolution, allowing investors to set impact objectives, measure impact performance, and report on these performance using a widely accepted and recognized framework (Figure 5). Figure 5 shows as well the share of application of other important frameworks, such as (i) the Impact Reporting and Investment Standards (IRIS) promoted by the GIIN, (ii) the Impact Management Project (IMP), (iii) the Principles for Responsible Investment (PRI) promoted by the United Nations, (iv) the Global Impact Investing Rating System (GIIRS) developed by B-Lab, (v) the Operating Principles for Impact Management promoted by the International Finance Corporation, (vi) the Global Reporting Initiative (GRI), and (vii) the Sustainability Accounting Standards Board (SASB).

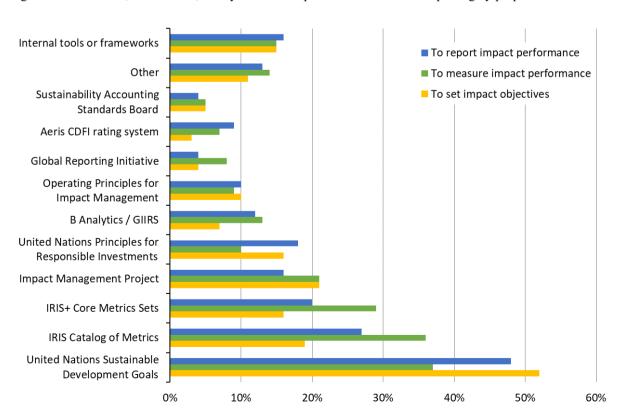


Figure 5. Use of tools, frameworks, and systems for impact measurement and reporting by purpose.

Note. Adapted from Hand et al (2020, p.18).

The 2020 GIIN annual survey highlights the core challenges that the market will face over the next five years. The largest concern is about impact-washing, followed by the markets' inability to demonstrate impact results, and the inability to compare impact results with peers. All these challenges could be addressed by further developing impact measurement and reporting frameworks, and by achieving a stronger standardization of taxonomy and reporting. The promotion of a wider use of the SDGs to report and measure impact performance, along with the development of strong and broadly accepted metrics, would eventually help the growth of investment products delivering intentional societal impact and, consequently, the retail offering as well.

1.5. The Italian ethical finance market

The Italian ethical finance market owes its birth to the work done by Associazione Finanza Etica (AFE) between 1994 and 2004. After the release of the "Ethical Finance Manifesto" in 1998, AFE paved the way for the birth of Banca Etica in 1999, the first ever and still the only ethical bank operating in Italy. In 2000, Banca Etica launched Etica Sgr, an asset management company focused only on ethical investments that quickly became the undisputed leader of the Italian ethical mutual funds industry. In fact, from 2010 to 2017, Etica Sgr was at the forefront of the Italian ethical mutual funds market for the size of AuM (Figure 6).

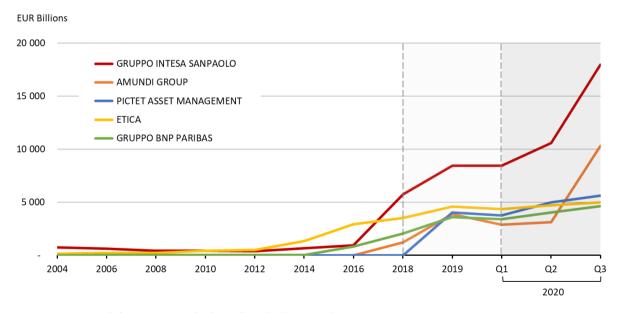


Figure 6. Top 5 asset managers operating in Italy by SRI mutual funds' AuM.

Note. Data sourced from Assogestioni's online database (Cubo)

After 2017, the biggest asset managers operating in the Italian market started to see the huge growth potential of the ethical investing segment and massively increased their offering of ethical investing products. Since then, the mutual funds market started to double in size each

year (Figure 7). As at the end of the third quarter of 2020, Gruppo Intesa Sanpaolo (including Eurizon, Pramerica, and Fideuram) is leading the Italian offering of ethical mutual funds with a market share of 32%, followed by Amundi (19%), Pictet Asset Management (10%), Etica (9%), and Gruppo BNP Paribas (8%) (Assogestioni, 2020a).

EUR Billions 60 000 55 721 50 000 40 000 35 447 30 000 20 000 10 000 2004 2006 2008 2010 2012 2014 2016 2018 2019 Q1 Q2 Q3 2020

Figure 7. Evolution of the AuM of SRI mutual funds offered in Italy over time.

Note. Data sourced from Assogestioni's online database (Cubo)

The considerable increase of the ethical mutual funds' AuM offered in the Italian market goes pari passu with the booming of SRI funds offered by asset managers to Italian investors (Figure 8).

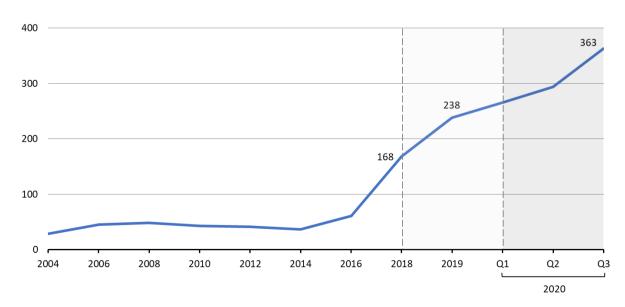


Figure 8. Evolution of the total number of SRI mutual funds offered in Italy over time.

Note. Data sourced from Assogestioni's online database (Cubo)

The strong growth that the Italian ethical finance market is experiencing is the result of years of pioneering work by various institutions. After the launch of Banca Etica and Etica Sgr at the turn of the millennium, the Italian Sustainable Forum (ItaSIF) started in 2001 its activities of promoting awareness and strategies linked to sustainable investments, and it was followed in 2003 by Fondazione Finanza Etica, that seeks to promote the values of ethical finance. The continuous discussions between these institutions and Italian legislators and standard setters were and still are key for the development of the ethical finance sector.

Since 2005, pension fund managers have been required by the legislative decree n.252/05 to include in their periodical communications to investors whether and to what extent ethical, environmental, and social criteria are adopted in their investment strategies. In 2010, the Italian insurance regulatory framework moved the first steps towards ethical investing with the ISVAP²⁴ Regulation n.35, providing rules on the disclosure of insurance products labelled as "ethic" or "socially responsible".

In 2012, during the First Italian Sustainable and Responsible Investment (SRI) Week organized by ItaSIF, the main Italian associations operating in the financial sector (ABI²⁵, ANIA²⁶, Assogestioni, and FeBAF²⁷) signed the Charter of Sustainable and Responsible Investment of Italian Finance. By signing the Charter, these organizations declared to make a common effort in spreading the culture of sustainability and social responsibility amongst the business community, and sustain the adoption of sustainable and responsible investment strategies. The Charter is built around 3 principles: (i) the key role of sustainable and responsible investments and their integration within traditional finance, (ii) the importance of disclosure and transparency, and (iii) the adoption of a medium-long term view.

In 2013, the Italian Chamber of Deputies launched a parliament's intergroup for sustainable finance that achieved to exempt all ethical investments from the payment of the so called Tobin Tax. The growing attention towards ethical finance and the third sector brought to the adoption of the law n.106/2016, which revolutionized the third sector, and law n.232/2016, which introduced in the Italian Consolidated Law on Banking (TUB) the concept of ethical banking. The latter sets the requirements that a bank has to fulfil in order to be defined as "ethical", and some fiscal incentives for this kind of banks.

²⁶ Associazione Nazionale fra le Imprese Assicuratrici (ANIA) represents insurance companies operating in Italy.

²⁴ Istituto per la Vigilanza sulle Assicurazioni Private e di Interesse Collettivo (ISVAP), was the public authority responsible for regulating the Italian insurance companies. In 2013 it was transformed into IVASS (Istituto per la vigilanza sulle assicurazioni).

²⁵ Associazione Bancaria Italiana (ABI) is a voluntary association of Italian banks.

²⁷ Federazione Banche, Assicurazioni e Finanza (FeBAF) was launched by ABI and ANIA as a collaboration of different associations of the Italian financial industry.

In 2018, the IVASS issued the regulation n.38/2018, which followed the EU Directive Solvency II in forcing corporate governance bodies to identify, evaluate, and manage ESG risks. The same year, the Ministry of Environment created the Italian Observatory on Sustainable Finance that focuses on the promotion, coordination, and monitoring of the activities related to sustainable and responsible investments.

In 2019, the EU directive n.2016/2341 on the activities and supervision of institutions for occupational retirement provision (IORP II) and the EU directive n.2017/828 on encouraging the long-term shareholder engagement (Shareholder Rights Directive - SRD II), entered into force in the Italian legislative system. The IORP II recognizes the importance of sustainability in investment policies and risk management of pension funds and requires them to disclose whether they consider ESG criteria in their investment choices and, if these are not considered, give reasons according to the principle "comply or explain". The SRD II focus is on promoting long-termism and more activism by institutional investors in exercising their voting rights.

The principles contained in SRD II have been included by Assognstioni in its Italian Stewardship Principles, which are inspired by the EFAMA Stewardship Code.

Despite the IORP II and SRD II represent a clear path towards a financial paradigm change towards ethical, sustainability, and long-termism values, they still set out no obligation to integrate ESG factors into investment approaches. That's why part of the EU action plan on financing sustainable growth will focus on clarifying asset managers' duties in relation to sustainability considerations (European Commission, 2018).

The regulatory evolution of the Italian ethical finance market above described, together with the increasing interest in ESG issues in financial activities of the Italian retail investors (Forum per la Finanza Sostenibile and Doxa, 2017) lead to the current competitive scenario in the Italian SRI mutual funds industry, described by Table 8.

Table 8. Asset management groups ranked by size of assets managed in SRI mutual funds offered to Italian investors.

		2020 Q3			2019			2018	
Asset Management Group	Rank	AuM	N° funds	Rank	AuM	N° funds	Rank	AuM	N° funds
GRUPPO INTESA SANPAOLO	П	17,964.89	61	Н	8,455.37	39	Н	5,753.75	27
AMUNDI GROUP	2	10,308.38	77	4	3,887.50	23	2	1,204.70	12
PICTET ASSET MANAGEMENT	æ	5,619.86	12	က	4,046.17	11			
ETICA	4	4,973.77	9	2	4,591.82	9	7	3,503.09	9
GRUPPO BNP PARIBAS	2	4,623.04	36	5	3,600.08	29	4	2,055.01	24
SCHRODERS	9	2,643.76	20	9	3,558.49	47	8	2,840.82	37
CREDITO EMILIANO	7	1,428.17	∞	11	556.97	ю	12	86.59	Т
GRUPPO DEUTSCHE BANK	∞	967.84	18	10	571.69	12	∞	487.36	6
ARCA	6	882.91	9						
GRUPPO CASSA CENTRALE BANCA	10	869.44	4	∞	708.98	4	7	490.39	က
FIDELITY INTERNATIONAL	11	763.50	2	12	530.59	2	23	0.10	1
GRUPPO MEDIOLANUM	12	733.85	2	13	396.66	2	10	127.97	2
ANIMA HOLDING	13	619.98	4	25	39.27	ĸ			
GRUPPO ERSEL	14	603.85	5	6	681.51	Z			

		2020 Q3			2019			2018	
Asset Management Group	Rank	AuM	N° funds	Rank	AuM	N° funds	Rank	AuM	N° funds
GRUPPO AZIMUT	15	486.67	2	24	44.54	1			
CANDRIAM	16	454.81	17	14	222.71	15	11	103.63	16
GRUPPO GENERALI	17	282.05	က	16	165.19	ю	15	26.88	1
CREDIT SUISSE	18	208.45	4	27	17.67	2	19	2.87	1
KAIROS PARTNERS	19	196.91	ю	17	106.09	2			
POSTE ITALIANE	20	164.99	Н						
AXA IM	21	116.93	က	22	58.75	ю	17	18.21	m
JPMORGAN ASSET MANAGEMENT	22	114.45	7	18	86.55	2	14	54.37	2
LYXOR	23	105.46	9						
M&G INVESTMENTS	24	105.18	5	23	47.37	4	22	0.11	7
ICCREA	25	79.44	Н	20	67.65	1			
FRANKLIN TEMPLETON INVESTMENTS	26	77.30	2	19	84.08	2	18	10.80	П
SELLA	27	64.47	Н	21	61.41	1	13	55.74	П
BNY MELLON INVESTMENT MANAGEMENT	28	50.22	2						
MORGAN STANLEY	29	44.80	1	59	3.59	1			
STATE STREET GLOBAL ADVISORS	30	41.53	2	15	198.85	2	6	151.02	2

		2020 Q3			2019			2018	
Asset Management Group	Rank	AnM	N° funds	Rank	AnM	N° funds	Rank	AnM	N° funds
EUREGIO PLUS	31	40.87	2	26	32.18	2	16	26.30	7
GROUPAMA ASSET MANAGEMENT	32	38.67	ю	30	1.08	2	20	0.64	2
ALLIANZ	33	24.40	ю						
CONSULTINVEST	34	18.62	1	28	5.04	П			
INVESCO	35	1.04	1	31	0.52	П	21	0.12	П
UBS ASSET MANAGEMENT	36	0.08	1						
PRAMERICA				7	2,618.86	7	9	1,088.29	5

Note. Data sourced from Assogestioni's online database (Cubo). Pramerica 2020 Q3 figures were consolidated into Gruppo Intesa Sanpaolo after the successful acquisition of UBI Banca, Pramerica's parent company.

An outlook on the different ethical investing strategies implemented by Italian investment managers is provided in the biannual Eurosif European SRI Study. From 2015 to 2017 almost all strategies posted a significant growth (Figure 9), apart from norms-based screening that still ranks third amongst the preferred strategy by asset managers.

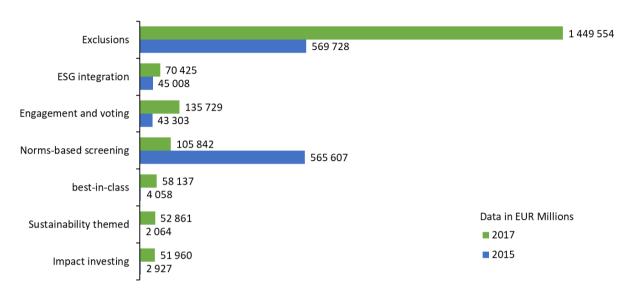


Figure 9. Italian AuM in EUR millions by ethical investing strategy.

Note. Adapted from Eurosif (2018a, p.94).

The 56% growth rate of the ethical investing strategies applied in the Italian market between 2017 and 2015, can be partly explained by the numerous legislative interventions that followed the 2015 United Nations Climate Change Conference held in Paris (COP21) and the publication of Pope Francis' second encyclical "Laudato Si", which particularly drew attention on impact investing and helped to boost the Italian interest into investments delivering societal impacts.

The huge growth rate presented by impact investing (1,675%) and the sustainability themed approach (2,461%) made Italy the leading European country in both investment strategies. These two strategies represent the most impactful ones in terms of societal impacts, thus highlighting the growing interest towards the third sector, which in fact captured the attention of the Italian legislator in 2016 (law n.106/2016 and law n.232/2016). Between 2015 and 2017, Italian impact investing initiatives started to bloom, with Oltre Venture launching its second impact investing fund in 2015, SEFEA Impact becoming operative in 2016, and Fondazione Social Venture Giordano dell'Amore (FSVGDA) making its first impact investment in 2017. Much of this growth can be attributed to the pioneering work done by (i) Fondazione Cariplo in launching back in 2004 Fondazione Housing Sociale and in 2009 its Integrated System of Funds (SIF), (ii) the first Italian impact investing fund set up by Oltre Venture in 2006, and (iii) OPES Impact Fund launched in 2012. In 2016, SIF - Housing Sociale was the third world's biggest impact investing fund according to a 2016 research conducted by FSVGDA based on

GIIN and Impactbase data. As at the end of 2020, the Italian impact investing market is populated by the four players above mentioned and the newborn Avanzi Impact, launched by Banca Etica in 2019 with the support of FSVGDA.

The third highest growing strategy was Best-in-class with a growth rate of 1,333%. This is a clear sign of an ethical finance market that is becoming more mature in the evaluation of ESG parameters, so that it is approaching positive screening strategies as well.

The negative screening and the engagement and voting approach consolidated their leading position in the Italian market. The positive trend registered by the engagement and voting approach is mainly driven by the increasing activism of Italian pension funds. Since the end of 2014, Assofondipensione²⁸ in collaboration with the Italian pension fund Fondo Cometa launched multiple collective engagement actions involving multiple players of the sector and focusing on climate change (2014), child labour and children's rights (2015), governance and fiscal transparency (2018), and environmental transparency (2018). In 2020, Assoprevidenza established the "Centre for the protection of the rights of institutional investors" in collaboration with the CNDCEC²⁹ to promote and develop the active engagement of Italian pension funds in close connection with the integration of ESG criteria (Assoprevidenza, 2020), and three private pension schemes (Inarcassa, ENPAM, and Cassa Forense) established ASSODIRE30 with the aim of promoting active engagement on sustainability issues. Assogestioni promotes its stewardship principles since 2013 in order to provide to the Italian asset management market a set of high level practices with regard to engagement and voting. As at the end of 2018, a total of 22 asset management companies operating in Italy accepted to be monitored on the application of these principles³¹ (Assognation and EY, 2019).

As at the end of the third quarter of 2020, the Italian asset management market is experiencing record levels of total asset under management, that reached the size of EUR 2,336 billion (Assognstioni, 2020b).

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²⁸ Assofondipensione is the Italian association representing the interests of pension funds.

²⁹ The Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili (CNDCEC) is the Italian association of chartered business consultants and accounting experts.

³⁰ ASSODIRE stands for Italian association of responsible investors.

³¹ The asset management companies that accepted the monitoring of Assogestioni are Allianz Global Investors, Amundi SGR, Anima SGR, Arca Fondi SGR, AXA Investment Managers, BancoPosta Fondi SGR, BNP Paribas Asset Management, Epsilon SGR, Etica SGR, Eurizon Capital SGR, Fideuram Investimenti SGR, Franklin Templeton Investments, Generali Investments Europe, M&G Investments, Mediobanca SGR, Mediolanum Asset Management Ireland, Mediolanum Gestione Fondi SGR, Pramerica SGR, Schroders Investment Management, Sella Gestioni SGR, UBS Asset Management, Unipol Gruppo.

Chapter 2

Methodology and Limitations

The present study intends to analyse the ethical retail investment products distributed to individual Italian investors, which consist mainly of UCITS and open-ended AIFs (ESMA, 2020), and unveil potential greenwashing practices (if any).

The Italian market for retail investment products is monthly analysed by Assogestioni, the Italian equivalent of EFAMA. Therefore, the analysis lays its foundation on the Assogestioni's database of mutual funds offered in Italy, updated as at the end of October 2020 and published on November 25, 2020. From this database, the funds classified by Assogestioni as "Sustainable and Responsible" (SRI) have been selected and used for the analysis (Appendix A). A total of 382 sustainable and responsible funds were included in the database, all of which were UCITS.

Some of these funds presented duplicates, meaning that different ISINs were belonging to share classes traceable to the same fund (or sub-fund), and one of them was shut down. A list of the ISINs³³ belonging to the same fund and the ISIN of the closed fund are provided in Appendix B (respectively Table 18 and Table 19). Following this first screening of the Assogestioni's database, and for the purpose of the following analysis, the total number of ethical mutual funds offered to Italian investors have been adjusted to 346.

2.1. Analysis of the Italian ethical investing retail market

In order to get the size of the Italian ethical mutual funds market, the AuM of each fund has been retrieved from Morningstar as at the end of November 2020. The fund size disclosed by Morningstar corresponds to the total net assets of the mutual fund, and it is a reasonable proxy of the fund's AuM. A total of 19 funds were not included in Morningstar. For 13 of these funds, the fund size was sourced from their respective asset management company's website, while for the other 6 it was not possible to retrieve the value of their fund size neither from their respective asset management company's website (Table 20 in Appendix C includes the details

³² Assogestioni classifies as "Sustainable and Responsible", a fund which, on the basis of its own operational definition of the concept of responsibility, has an investment policy that prohibits the purchase of a set of securities and/or favours the purchase of securities based on analyses that integrate ESG (Environmental, Social and Governance) criteria to financial analysis. This definition is independent of the specific methods used to apply selection criteria (internal ethics committee, consultancy company, external selection, benchmark). The definition can be found in https://www.assogestioni.it/articolo/guida-alla-classificazione (Accessed: 14 January 2021).

³³ International Securities Identification Number.

of these funds). Therefore, the total AuM of ethical mutual funds offered to Italian investors calculated in this analysis will be slightly affected by the lack of these data.

Each fund was assigned to one of four categories depending on the type of securities in which it invests and according to the Assogestioni's classification included in the database: equity, fixed income, multi-asset, and money market funds.

In order to get an overview of the application of different ethical investing strategies by the asset managers operating in the Italian market, the KIIDs³⁴, the prospectuses, and the information included in the websites of each fund have been carefully analysed. For 2 of the funds not included in Morningstar, it was not possible to retrieve any information about their investing strategies (Table 21 in Appendix C includes the details of these funds). Therefore, the part of the analysis that is segmented by ethical investing strategy will be marginally affected by the lack of these data.

Multiple ethical investing strategies can be pursued simultaneously by each fund. In order to assign each fund to the right set of ethical investing strategies, the definitions included in Chapter 1 have been compared with the disclosure contained in each fund's KIID, prospectus, and/or website. The rationale behind the assignment of each fund to an ethical investing strategy is as follows:

- Passive screening: funds replicating the performance of an ethical, SRI, or ESG index;
- ESG integration: funds disclosing the integration of ESG criteria in their investment approach;
- Negative screening: funds disclosing the exclusion of certain companies, sectors, and/or countries from their investment universe;
- Best-in-class: funds disclosing positive screening criteria and/or specifically using the wording "best-in-class", "best-in-universe", or "best-effort" when describing their investment approach;
- Norms-based screening: funds disclosing the exclusion of companies based on their compliance with minimum standards of business practices dictated by international norms. In order to produce findings that are comparable with the most important international studies on ethical investments, this analysis considers the screening of companies operating in arms-related sectors that do not comply with international treaties on the regulation of controversial weapons (like the Ottawa convention on Anti-Personnel Mines, the Oslo Convention on Cluster Munitions, the Biological and Toxin

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³⁴ The Key Investor Information Document (KIID) is a document that provides to potential investors the critical information about a fund.

Weapons Convention, or The Chemical Weapons Convention), as a negative screening approach, like Eurosif in its Biannual European SRI Study.

- Sustainability themed: funds disclosing a specific focus on certain sustainability themes in their investment approach;
- Engagement and voting: funds disclosing a sustainability focused engagement and voting strategy, and presenting reports on their engagement and voting activity that highlights its sustainability focus.
- Impact reporting: funds producing an impact report at the fund level (consolidated impact reports at the management company level are not considered). The use of the wording "impact reporting" instead of "impact investing" is driven by the fact that mutual funds are mostly operating in secondary markets, so that additionality is almost impossible to demonstrate (Brest, Gilson and Wolfson, 2018). Despite additionality as a core characteristic of impact investing is still a debated topic (Brest and Born, 2013b), as argued in Chapter 1, this analysis will embrace the Brest, Gilson and Wolfson (2018) thesis.

2.2. Morningstar sustainability rating

The Morningstar sustainability rating consists in a measure of the financially material ESG risks in a portfolio in relation to its peers. It is helpful to enrich the overview of the Italian ethical investing mutual funds market with an externally sourced rating system.

The rating of each fund was sourced from the Morningstar's website and it is updated as at the end of November 2020.

From the sustainability section of the webpage dedicated to each fund by Morningstar, it was possible to source three different types of information: (i) the fund's sustainability rating, (ii) the fund's carbon risk score, and (iii) the fund's fossil fuel exposure.

The Morningstar sustainability rating used makes reference to the methodology published by Morningstar on October 31, 2019 (version 1.2). Morningstar assigns a rating that goes from 1 to 5, depending on the portfolio's absolute sustainability score and on its percentage rank within its Morningstar global category. Hence, a fund's sustainability rating is its normally distributed absolute score and descriptive rank relative to the fund's global category. Table 9 describes the Morningstar sustainability rating.

Table 9. Morningstar sustainability rating.

Distribution	Rating icon
Best 10% (lowest risk)	
Next 22.5%	
Next 35%	
Next 22.5%	
Worst 10% (highest risk)	

Note. Sourced from Morningstar Research (2019).

The funds that had not a Morningstar sustainability rating as at the end of November 2020 were 125: the 19 funds not included in Morningstar (Appendix C, Table 20), plus 106 funds included in Morningstar, but not rated (Table 22 in Appendix D lists the ISINs of these funds).

The Morningstar portfolio's carbon risk score indicates how vulnerable are the companies held by the fund in its portfolio to the transition to a lower-carbon economy. Specific transition risks identified by Morningstar are (i) policy and legal regulations limiting carbon emissions, (i) pressure on the alignment of companies' strategies to the Paris Agreement's goal of limiting global warming to well below 2°C, (iii) switching costs to new technologies, and (iv) changing consumer preferences (Hale, 2018). The methodology in which this risk score is calculated is explained by Hale (2018) in its report for Morningstar.

For the purpose of this analysis and in line with the Morningstar's report by Hale (2018) (i) a portfolio's carbon risk score of 0 is considered to have a negligible carbon risk, (ii) from 0.1 to 9.9 the risk is low, (iii) from 10 to 29.9 the risk is medium, (iv) from 30 to 49.9 the risk is high, and (v) over 50 the carbon risk of the fund's portfolio is considered to be severe.

The fund's fossil fuel exposure is the last Morningstar's measure of sustainability considered in this analysis. Fossil fuel exposure is defined by Morningstar as a portfolio's percentage exposure to companies that earn at least 5% of their revenue from thermal coal extraction, thermal coal power generation, oil and gas production, or oil and gas power generation, or 50% of their revenue from oil and gas products and services (Hale, 2018).

Not all funds receiving a Morningstar sustainability rating were also rated on their portfolio's carbon risk. A total of 91 funds out of the 221 that received a Morningstar sustainability rating, had not a Morningstar portfolio's carbon risk score as at the end of November 2020. For these funds, no fossil fuel exposure measure was present either. Table 23 in Appendix D lists the ISINs of these funds.

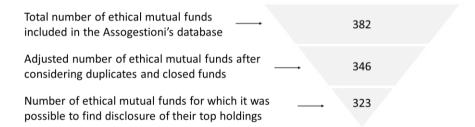
2.3. Portfolio analysis of ethical mutual funds offered to Italian investors

The last step of this analysis seeks to unveil the potential presence of greenwashing practices in the Italian ethical investing mutual funds market, by detecting the presence of companies involved in controversial, unethical, and unsustainable activities inside the portfolios of the funds operating in the market.

To do so, the top holdings of the 346 ethical investing mutual funds offering their products to Italian investors, have been collected from Morningstar, or from the asset management company's website when the fund's portfolio was not disclosed by Morningstar (Table 24 in Appendix E includes the details of these funds). The top holdings of each fund were collected during November 2020 and correspond to the most updated portfolio disclosed by the fund at the moment in which the top holdings were gathered.

For 23 out of the 346 funds under analysis it was not possible to find any disclosure of their top holdings (Table 25 in Appendix E lists the ISINs of these funds). Due to this, the portfolio analysis of ethical mutual funds offered to Italian investors is based on a total of 323 funds (Figure 10).

Figure 10. The process leading to the final sample of ethical mutual funds offered to Italian investors considered for the portfolio analysis.



Out of these 323 funds, 234 disclosed their top 25 holdings, while 89 funds disclosed their top 10 holdings (Table 26 in Appendix E lists the ISINs of these latter funds).

The top holdings have then been compared to different lists of companies involved in activities that are considered to have strong negative impacts on the achievement of the SDGs.

To do so, 14 controversial themes have been identified. Table 10 links the 14 controversial themes with the literature exposing the companies involved in the controversy and the table included in Appendix F that lists these companies.

Table 10. Controversial themes analysed, linked to the corresponding literature and to the corresponding table in Appendix F.

Controversial theme	Literature	Reference
1. Fossil fuel expansion companies	(Kirsch et al., 2020)	Table 27
2. Arctic oil companies	(Kirsch et al., 2020)	Table 28
3. Offshore oil and gas companies	(Kirsch et al., 2020)	Table 29
4. Tar sands oil companies	(Kirsch et al., 2020)	Table 30
5. Fracked oil and gas companies	(Kirsch et al., 2020)	Table 31
6. Coal mining and coal power companies	(Kirsch <i>et al.,</i> 2020)	Table 32 and Table 33
7. Banks financing fossil fuel companies	(Kirsch et al., 2020)	Table 34
8. Arms-producing and military services companies	(SIPRI, 2019b)	Table 35
9. Countries retaining the death penalty	(Amnesty International, 2020)	Table 36
10. Animal testing companies	(PETA, 2020a)	Table 37
11. Plastic polluting companies	(MacKerron, McBee and Shugar, 2020)	Table 38
12. Highly hazardous pesticides (HHPs) companies	(Dowler, 2020)	Table 39
13. Tobacco companies	(Shugar, 2020)	Table 40
14. Companies and banks driving deforestation	(Forestsandfinance.org, 2020; Rainforest Action Network, 2020)	Table 41

Funds holding securities linked to one of the above controversial themes are flagged as funds involved in the controversy.

These funds are then compared to the total number of ethical investing mutual funds offered to Italian investors in order to draw any conclusions on the status of the Italian ethical investing market and on the possible presence of greenwashing practices.

2.4. Limitations of the study

The methodology chosen to conduct this study presents some inherent limitations tied to the availability of data and the way in which they are disclosed by fund managers, and to cultural biases on the choice of the controversial themes' impact on the quality of the Italian ethical mutual funds offering.

With regard to the analysis of the ethical investing strategies adopted by fund managers, the quality of the disclosure contained in the KIIDs, the prospectuses, and the funds' website was critical for the identification of the correct set of ethical investing strategies adopted by the fund's asset manager. Despite these information consist of self-reported data, they have been

independently collected and critically analysed. This represents a strength of the study if compared to the most prominent researches on the field, which are based on surveyed data, like the 2018 Global Sustainable Investment Review by GSIA, the 2018 Eurosif European SRI Study, and the 2020 Annual Impact Investor Survey by GIIN.

For the purpose of the portfolio analysis of ethical mutual funds offered to Italian investors, only the top holdings were considered, as complete portfolios are rarely disclosed by funds and Morningstar. An analysis of the complete portfolios of each fund could have unveiled more holdings in controversial companies, especially in funds with a vast array of small participations in different firms. On average, the top holdings analysed represented 47.7% of the total fund's portfolio. The total top holdings collected from the 346 funds analysed, represented 43.5% of the total AuM of these funds (updated as at the end of November 2020).

Lastly, although the portfolio analysis has been built on a generally accepted framework, that is the Sustainable Development Goals, the study could have still been culturally biased in the identification of the controversial themes used to draw conclusions on the possible presence of greenwashing in the industry.

Chapter 3

Discussion of findings

From the analysis of the Assogestioni's database of mutual funds offered in Italy, it is possible to get a picture of the retail ethical asset management products available to Italian investors. As at the end of October 2020, Assogestioni classifies as sustainable and responsible (SRI) a total of 382 funds out of a total of 4,925 funds, which indicates that 7.8% of the mutual funds offered to Italian investors are considered to be ethical investment products.

For the purpose of the analysis, the total number of funds have been adjusted to 346, as specified in Chapter 2. In Chapter 2 there are also indications about which funds were not included in the portfolio analysis and for which of them it was not possible to collect the data required for the following analysis. Figure 11 and Figure 12 provide an overview of the total number and size of ethical mutual funds offered in Italy by fund's category.

Figure 11. Number of ethical investing mutual funds offered in Italy by category (type of holdings).

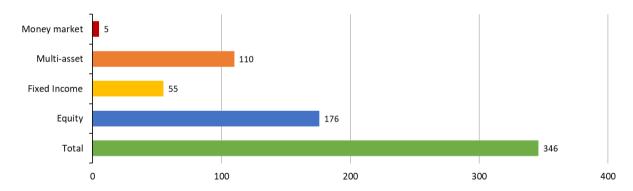
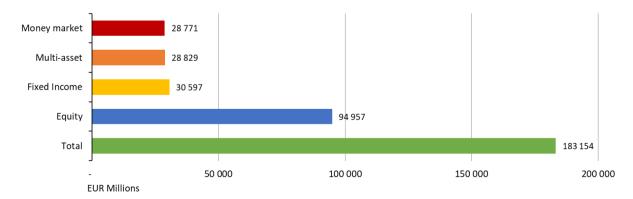


Figure 12. AuM of ethical investing mutual funds offered in Italy by category (type of holdings).



3.1. Ethical investing strategies in the Italian market

From the analysis of the KIIDs, the prospectuses, and the information included in the websites of each fund, it was possible to examine the popularity of the different ethical investing strategies in the Italian asset management market. In Figure 13 and Figure 14, the total number of ethical mutual funds offered in Italy by ethical investing strategy and the size of AuM invested in each ethical investing strategy are respectively presented.

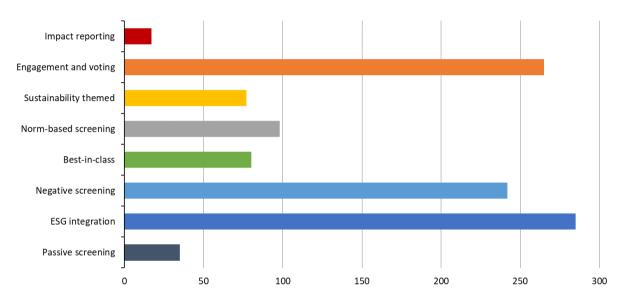


Figure 13. Number of ethical investing mutual funds offered in Italy by ethical investing strategy.

Note. The total number of funds obtained by summing each strategy differs from the total number of ethical mutual funds offered in Italy as multiple strategies can be pursued simultaneously.

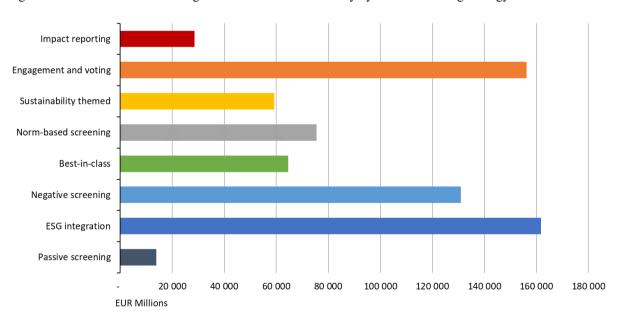


Figure 14. AuM of ethical investing mutual funds offered in Italy by ethical investing strategy.

Note. The total AuM obtained by summing each strategy differs from the total AuM of ethical mutual funds offered in Italy as multiple strategies can be pursued simultaneously.

In order to provide a deeper level analysis, Figure 15 and Figure 16 provide a segmentation of ethical investing strategies by fund's category (refer to Chapter 2 for the methodology).

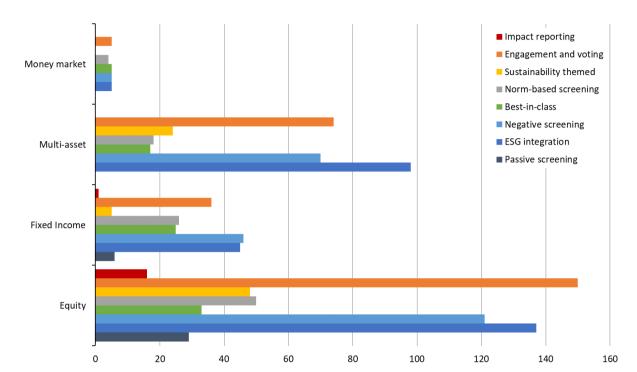


Figure 15. Number of ethical investing mutual funds offered in Italy by investing strategy and fund's category.

Note. The total number of funds obtained by summing each strategy differs from the total number of ethical mutual funds offered in Italy as multiple strategies can be pursued simultaneously.

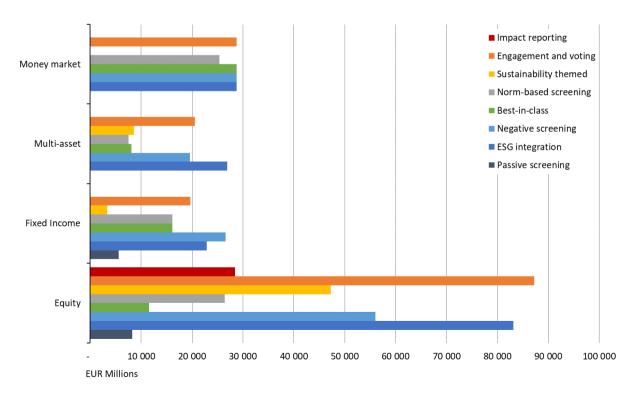


Figure 16. AuM of ethical investing mutual funds offered in Italy by investing strategy and fund's category.

Note. The total AuM obtained by summing each strategy differs from the total AuM of ethical mutual funds offered in Italy as multiple strategies can be pursued simultaneously.

As at the end of October 2020, the Italian ethical mutual funds market presents a heterogeneous mix of ethical investing approaches. Passive solutions represent only a niche, while among active investments, ESG integration is the most popular strategy, followed by engagement and voting on sustainability matters, and negative screening. Norms-based screening is less used in the ethical offering of asset managers in Italy, which will be soon required by law (*Atto Camera* 1813) to avoid investments in anti-personnel mines and cluster munitions as defined by the Ottawa and Oslo Conventions. Strategies that require a positive approach, like best-in-class and sustainability themed investing, cover a relevant share of the total market's offering. Funds reporting their impact performances are few (4.9%), nevertheless they represent a much higher portion of the market's total AuM (15.6%).

3.1.1. Negative screening

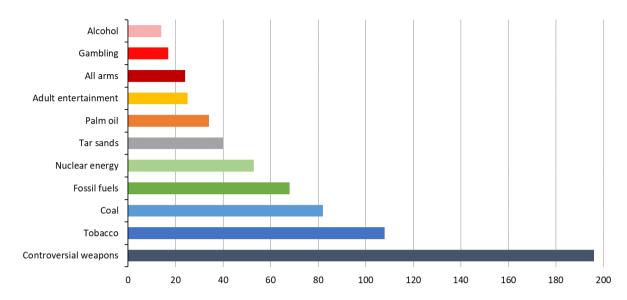
Negative screening covers the third position both in terms of number and size of funds adopting this strategy. A total of 242 funds (69.9% of the total) managing EUR 130,918 million (71.5% of the total) avoids investments in industries considered to be unethical.

The strategy is more popular among fixed income and money market funds: 83.6% of fixed income funds and 100% of money market funds apply negative screens. Unlike the other categories, fixed income and money market asset managers show a strong preference towards all types of screening approaches (negative screening, positive screening/best-in-class, and norms-based screening), probably due to the fact that pursuing an effective strategy of engagement and voting is more difficult, since holding bonds and liquidity give no access to ownership rights (Beeching, 2014) (not to mention the fact that most of these type of funds invest in government bonds).

For equity and multi-asset funds the negative screening approach is used respectively by 68.8% and 63.6% of asset managers. In these two categories, the vast use of engagement and voting strategies, along with a higher share of assets invested using thematic approaches, reduce the need for asset managers to apply exclusionary criteria in order to validate the ethical nature of the portfolio.

The most popular exclusion criteria is controversial weapons, which features in 81% of funds using negative screens. It is followed by tobacco (45%), coal (34%), fossil fuels (28%), nuclear energy (22%), tar sands (17%), palm oil (14%), adult entertainment (10%), all arms (10%), gambling (7%), and alcohol (6%) (Figure 17). The prevalence of screens connected with human health and environmental issues points up the crucial role of sustainable development in today's investors' ethical decisions.

Figure 17. Top exclusion criteria. Number of ethical investing mutual funds offered in Italy applying each screening criteria.

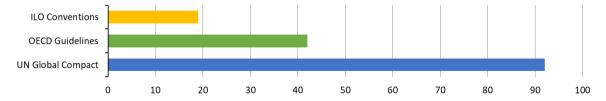


3.1.2. Norms-based screening

The norms-based screening approach represents the fourth most popular strategy. Assets managed with this approach amount to EUR 75,455 million, which is 41.2% of the total AuM offered in the Italian SRI mutual funds market. As the other screening approaches, this strategy is employed more by fixed income and money market funds: 47.3% of fixed income funds and 80.0% of money market funds apply norm-based screens, while only 28.4% of equity funds and 16.4% of multi-asset funds implement these screens.

The most popular screening criteria is the compliance with the UN Global Compact (94% of funds applying norms-based screens), followed by the OECD guidelines for multinational enterprises (43%) and the International Labour Organization (ILO) conventions and recommendations (19%) (Figure 18).

Figure 18. Top norms-based exclusion criteria. Number of ethical investing mutual funds offered in Italy applying each screening criteria.



3.1.3. Best-in-class

Positive screening approaches require more efforts for the asset managers as they have to gather and compare ESG data and scores for each company they are willing to invest in. The Eurosif in its 2018 European SRI Study shows that the best-in-class application has rapidly

increased over time. In today's Italian ethical mutual funds market this approach is implemented by 80 funds (23.1% of the total) managing EUR 64,588 million (35.3% of the total).

Almost a half (45.5%) of fixed income funds and the totality of money market funds apply this approach. Among equity and multi-asset investors the popularity of the best-in-class strategy is lower. In fact, it is respectively implemented by 18.8% and 15.5% of funds belonging to each category.

3.1.4. ESG integration

The rising popularity of the ESG integration approach, signalled by the GSIA in its 2018 Global Sustainable Investment Review, hit the Italian ethical investment market as well. As at the end of October 2020, the ESG integration approach is the most implemented strategy by ethical mutual funds' asset managers. In total, 285 funds (82.4% of the total) managing EUR 161,745 million (88.3% of the total) integrates ESG factors in the asset allocation process.

This strategy is the leading one for multi-asset funds, where it is applied by 89.1% of such funds, and it is also employed by the totality of money market funds.

3.1.5. Sustainability themed

Sustainability themed investing with its impact-oriented approach, is consolidating a strong position in the Italian ethical investing mutual funds market, confirming the results reported by Eurosif in its 2018 European SRI Study. The Italian mutual funds devoting their strategy to the support of some sustainability themes like climate change, medical innovation, education, food, circular economy, and energy transition, are 77, which is 22.3% of the total, but they manage a much greater share of the total Italian ethically managed assets, that is 32.2% of the total (EUR 59,150 million).

This strategy is particularly popular among equity funds, where almost half (49.7%) of the assets managed by these funds is the result of a sustainability themed investment allocation approach. Multi-asset funds follow behind, with 29.7% of assets managed with this ethical strategy. In fixed income funds, the share of assets managed using the sustainability themed approach drops to 10.9% and it is a synonym of green bonds portfolios. Money market funds do not implement this strategy.

3.1.6. Engagement and voting

The engagement and voting on sustainability matters approach leads the market together with ESG integration. A total of 265 funds (76.6% of the total) managing EUR 156,216 million (85.3% of the total) actively engage with companies in their portfolios and participate at their shareholder's meetings. These data show that most of the asset managers offering their products

in the Italian market are keen to accompany companies in the process towards a more sustainable business model and recognize its value for successful long-term investing strategies.

For equity funds, it represents the most employed ethical investing strategy, with a total of 91.8% of assets managed using this strategy. The SRD II, the EFAMA Stewardship Code, and the Italian Stewardship Principles promoted by Assogestioni played a big role in the development of this strategy, along with the realisation by asset management groups of the substantial influence they could exert aggregating the voting rights deriving from the shares held in their funds' portfolios. About this, it is worth mentioning the famous Larry Fink's (BlackRock's CEO) annual letter to CEOs, published in January 2020, where he announced he will put sustainability at the heart of BlackRock's investment strategy and he will start to divest from companies that present a high sustainability-related risk (such as thermal coal producers) (Fink, 2020). The great echo generated by the exit statement (Hirschman, 1970) made by BlackRock, the largest asset manager worldwide (Willis Towers Watson, 2020), is proof of the effectiveness that such strategies can achieve. While exit strategies are more effective for large asset owners and in markets where firms are more contestable, voice strategies (Hirschman, 1970) have the potential to pressure the management of any targeted companies independently of their governance structure, and could allow small asset owners to increase the effectiveness of their engagement objectives. In Italy, relevant initiatives, like Shareholders for Change (SFC), are promoting the value of shareholder activism and voice strategies. SFC birth was fostered by Fondazione Finanza Etica and Etica Sgr in 2017 and it consists of a European network for shareholder engagement on sustainable development issues. It coordinates its members' dialogue with companies' management and voting to annual general meetings (AGMs).

The totality of money market funds implements engagement and voting, while this strategy represents the second most popular one for multi-asset funds.

In fixed income funds, the strategy is less applied by asset managers probably due to the lack of voting rights associated with bonds, as highlighted in the precedent paragraph dedicated to negative screening.

3.1.7. Impact reporting

Funds reporting on their societal impacts are only 17 (4.9% of the total), but they manage a quite relevant amount of assets (EUR 28,533 million, that is 15.6% of the total). All of these funds are investment products that already implement a sustainability themed approach to the asset investment process, but that are willing to take a step further in the spectrum of capital (Table 4) towards investments able to contribute to the major societal issues. By actively

reporting their impact results, these funds make themselves transparent and accountable about the impacts and the contribution that their portfolio has, in relation to the sustainability themes they decided to invest in. Some good practices are represented by the detailed impact reporting of (i) CPR Invest Climate Action and CPR Invest Education, two funds managed by CPR Asset Management, a company belonging to the Amundi Group, (ii) M&G (Lux) Positive Impact Fund by M&G Investments, and (iii) Investimenti Sostenibili of Sella Sgr, which is the only fixed income fund reporting its impact performance and the first ever Italian mutual fund to make impact its first priority (since 2015) (Sella Sgr, 2020).

Apart from Investimenti Sostenibili, funds reporting their impact performance are all equity funds and they represent 30.0% of the total assets managed by this category. Considering that almost a half of assets under the management of Italian equity SRI mutual funds are invested in specific sustainability themes, these findings strongly support the huge growth rates associated with impact-oriented finance (sustainability themed and impact investing) by the Eurosif 2018 European SRI Study.

It is worth mentioning that along with the 17 funds reporting their impact performance, two Italian asset management groups are consistently investing in the new impact-oriented financial paradigm, but they are reporting the impact performance of their funds at a consolidated level and not at the single fund level: Eurizon Capital (which is leading the Italian ethical investing mutual funds market) and Etica Sgr.

3.1.8. Passive screening

Even though there are more funds applying a passive screening approach (35 funds) than funds reporting their impact, passive screening funds represent the least popular strategy in terms of assets under management (EUR 13,825 million). This represents a clear signal that Italian investors prefer active management when it comes to ethical investments.

The strategy is applied by 29 equity funds and 6 fixed income funds. For fixed income funds, it represents the third least popular strategy by size of assets under management, before sustainability themed and impact reporting, while for equity funds it represents the least popular one.

3.2. Morningstar sustainability rating

The Morningstar sustainability rating for funds was released in 2016 to help investors understand and manage the total ESG risk in their portfolio. It consists in a measure of the financially material ESG risks in a portfolio in relation to its peers. The ethical investing mutual funds offered in Italy that received a sustainability rating by Morningstar are 221, which is

63.9% of the total ethical investing mutual funds offered in the Italian market. In Figure 19 are presented the number of funds that received the same Morningstar sustainability rating.

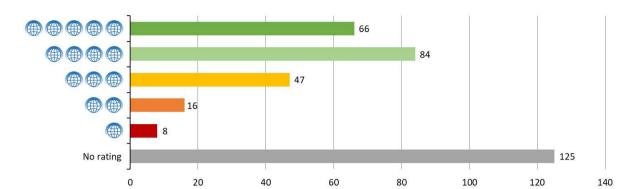


Figure 19. Number of ethical investing mutual funds offered in Italy by Morningstar sustainability rating.

Figure 19 shows that 150 funds offered in the Italian asset management market perform better than the 67.5% of their global peers, meaning that 43.4% of the total ethical funds offered in Italy presents a portfolio with a low ESG risk. Only 24 funds (6.9% of the total) present a high ESG risky portfolio (worse than the 67.5% of their global peers).

Nonetheless, a relevant number of funds (125 funds, that is the 36.1% of the total) are not rated. For these funds, retail investors could find some difficulties in assessing the quality of the portfolios in terms of ESG risks and therefore incur the threat of greenwashing practices.

As ethical investors nowadays core concern is the environment and climate change (the 10% of ethical mutual funds offered in Italy include in their names words like "low carbon", "climate change", "green", "ecology", "environment"), Morningstar releases also a measure of a portfolio's carbon risk, which indicates how vulnerable are the companies in the fund's portfolio to the transition away from a fossil fuel based economy. Along with the portfolio carbon risk score, Morningstar calculates the fossil fuel exposure of a portfolio.

Ethical mutual funds offered to Italian investors receiving a carbon risk score by Morningstar are only 130, which is 37.6% of the total (Figure 20).

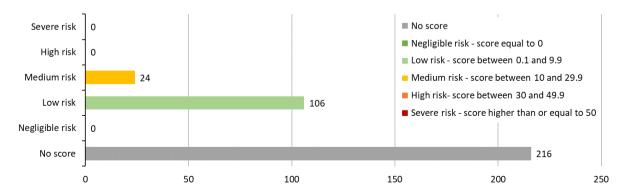
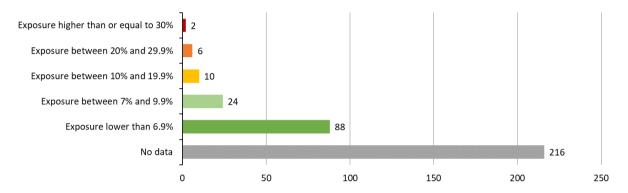


Figure 20. Number of ethical investing mutual funds offered in Italy by Morningstar portfolio carbon risk score.

The 81.5% of these funds receive a portfolio carbon risk score lower than 9.99, which allows them to obtain a low risk rating. The remaining 24 rated funds, with a score between 10 and 29.99, are deemed to have a medium risk rating. Funds with negligible, high, and severe ratings are not present between the ethical mutual funds offered in Italy and rated by Morningstar.

Figure 21 shows the number of carbon risk rated funds by their portfolio's fossil fuel exposure and highlights how 88 funds (67.7% of rated funds) present an exposure lower than 7%, which allows funds with a low carbon risk rating to obtain the Morningstar Low Carbon Designation (Hale, 2018).

Figure 21. Number of ethical investing mutual funds offered in Italy by portfolio's fossil fuel exposure (portfolio's percentage exposure to fossil fuel companies), as calculated by Morningstar.



It is anyway significant to underline that 18 of the funds rated by Morningstar present a portfolio with exposure to fossil fuels that is higher than 10% of their total assets, and are therefore significantly involved in the industry and subjected to high ESG risks. It is essential for these funds to justify their involvement in the industry despite being positioned as ethical financial products. Considering the strong focus on environment showed by ethical retail investors (Forum per la Finanza Sostenibile and Doxa, 2017; Eurosif, 2018a; Department for International Development, 2019; Morgan Stanley Institute for Sustainable Investing, 2019), the lack of an appropriate engagement and voting strategy towards fossil fuel companies by these funds, could represent a greenwashing warning light.

Although the overall Morningstar's sustainability and carbon risk ratings associated with ethical mutual funds offered to Italian investors depict an industry that mostly cares about its impact on the environment, 36.1% of funds are not rated with regard to their ESG risk, and 62.4% of funds are not rated with regard to their carbon risk. This raises concerns about the incentives that rating companies have on assigning generous ratings (or no ratings at all) to funds in an attempt to retain business from asset managers.

As demonstrated by the work that the EU is fostering on the development of the EU Ecolabel in order to increase the access by retail investors to ethical investment products (Hessenius *et al.*, 2020), the importance of independently rated ethical investing funds is critical to prevent

greenwashing practices and safeguard ethical retail investors willing to give purpose to their savings.

3.3. How ethical are ethical mutual funds offered to Italian investors?

In order to estimate how ethical is the Italian ethical mutual funds industry, and therefore draw conclusions about the possible presence of greenwashing in the industry, this analysis is built on the currently most used framework by societal impact-oriented investors: the Sustainable Development Goals.

The SDGs have become the reference point for today's ethical finance. They set a worldwide accepted framework for the definition of where businesses should focus their efforts in order to achieve good for the society and for the planet. From a review of reports and papers disclosing greenwashing practices and unsustainable and questionable activities that are leading the world away from the achievement of the SDGs, this analysis will identify some controversial themes and analyse the Italian ethical mutual funds industry involvement in such controversies.

Table 11 summarises the controversial themes selected and the SDGs and targets negatively impacted by these controversies.

Table 11. Summary of controversial themes analysed and the respective negatively impacted SDGs and targets.

Controversial theme	Negativ	Negatively impacted SDGs' targets ³⁵				
1. Fossil fuel expansion companies	3 COOD HEALTH AND WELL-BURG	3.9	8 DECENT WORK AND ECONOMIC DECONTH	8.4	14 UPF SECON WATER	14.1, 14.2 & 14.3
	6 CLEAN WATER AND SANITATION	6.3 & 6.6	9 AND INFRASTRUCTURE	9.2 & 9.4	15 ON LAND	15.1 & 15.5
	7 ATTRIBUTES AND CLEAN DIRECT	7.1 & 7.2	12 arsonista r doksumpitor ako froducijon	12.2 & 12.4		
2. Arctic oil companies	6 CLEAN WOTER AND SUNTATION	6.6	14 DELON WATER	14.1, 14.2 & 14.3	15 DE	15.1 & 15.5
3. Offshore oil and gas companies	14 BEEN WATER	14.1, 14.2 & 14	.3			
4. Tar sands oil companies	3 COOD HEATH	3.9	6 CLEAN WATER AND SENTENCES	6.3 & 6.6	15 DEFENDE	15.1, 15.2 & 15.5
5. Fracked oil and gas companies	6 CLEAN BRITER AND SCOTTATION	6.3 & 6.6				

³⁵ The SDGs' targets included in Table 11 are described in Appendix G.

Negatively impacted SDGs' targets³⁵ **Controversial theme** 3 GOOD HEALTH 3.9 15.1 & 15.5 6. Coal mining and coal 8.3, 8.4, 8.7 power companies **-**4å 8.8 & 9.2 & 9.4 6.3 & 6.6 ø 7.1 & 7.2 12.2 & 12.4 7. Banks financing fossil fuel It contributes to the negative impacts of controversial themes 1 to 6. companies 8. Arms-producing and 16.1, 16.4 & 16.10 military services companies 9. Countries retaining the 16.3 & 16.10 10.3 death penalty 10. Animal testing 12.2 companies 11. Plastic polluting 2.4 8.4 14.1 & 14.2 companies 6.6 12.2, 12.4 & 15.1 & 15.5 12.5 12. Highly hazardous 2.4 6.3 & 6.6 15.1 & 15.5 pesticides (HHPs) companies 3.9 12.2 & 12.4 13. Tobacco companies 1.2 8.3, 8.7 & 8.8 14.1 & 14.2 ŇŧŶŶŧĨ 3.9 15.1, 15.2 & 12.2, 12.4 & -4å 12.5 15.5 1.2 & 1.4 14. Companies and banks 8.3, 8.4 & 8.8 12.2 driving deforestation ŇŧŧŧĬ 2.4 9.2 & 9.4 15.1, 15.2 &

15.5.

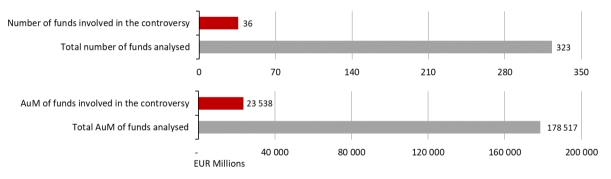
3.3.1. Fossil fuel expansion companies

The world's reliance on fossil fuels is still enormous and forecasts show no sign of a consistent reduction over the next two decades (Raval and Hook, 2019), making it impossible to achieve the 7.1 and 7.2 SDG's targets. Burning all currently developed fossil fuel reserves (meaning reserves of oil, gas, and coal that are already in production) will completely exhaust the 2°C carbon budget set by the Paris Agreement on climate change (Trout, 2018). Therefore, any expansion of production by fossil fuel companies is incompatible with the world's objective of limiting global warming. Exceeding 1.5°C of global warming would negatively and irreversibly impact ecosystems, biodiversity, and resources (IPCC, 2018). SDGs' targets 6.6, 8.4, 9.2, 9.4, 12.2, 12.4, 14.2, 15.1, and 15.5 seem unreasonable in such a context.

Furthermore, fossil fuels pollution is continuously harming human health (impacting SDGs' targets 3.9, 6.3, and 14.3), and oil spills around the globe continue to happen (more than 60 accidents resulting in oil spills happened in the last decade (Mwai, 2020)) with catastrophic impacts for marine ecosystems (SDGs' targets 14.1 and 14.2).

From the list of the top 100 fossil fuel expansion companies drawn by Kirsch *et al.* (2020), this analysis seeks to detect the presence of these companies in the top holdings of ethical mutual funds offered to Italian investors (Figure 22).

Figure 22. Number and AuM of ethical funds investing in fossil fuel expansion companies compared to the total number and AuM of ethical funds analysed.



The 11.1% of ethical funds analysed includes in their top holdings fossil fuel expansion companies. These funds are managing 13.2% of the analysed assets under management offered to Italian investors.

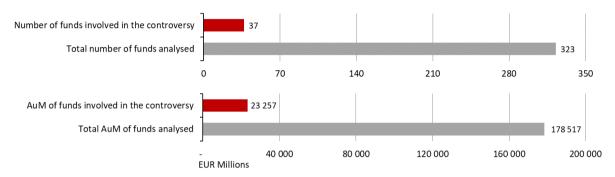
3.3.2. Arctic oil companies

In 2009 the United States Geological Survey estimated that the area north of the Arctic Circle may contain about 30% of the world's undiscovered gas reserves and 13% of the global undiscovered oil reserves, mostly offshore (Gautier *et al.*, 2009). Since then, fossil fuel companies have started competing to drill in the Arctic, despite the fragile Arctic ecosystem (WWF, 2020b) and the catastrophic consequences that an oil spill could have (Cowling, 2011;

Goodyear and Beach, 2012; Zachos, 2018). SDGs' targets 6.6, 14.1, 14.2, 14.3, 15.1, and 15.5 are at stake if drilling in the Arctic is set to continue.

From the list of the "top 30 companies by onshore and offshore Arctic oil and gas reserves under production plus expansion reserves" (Arctic oil companies) drawn by Kirsch *et al.* (2020), Figure 23 analyses the presence of these companies in the top holdings of ethical mutual funds offered to Italian investors.

Figure 23. Number and AuM of ethical funds investing in Arctic oil companies compared to the total number and AuM of ethical funds analysed.



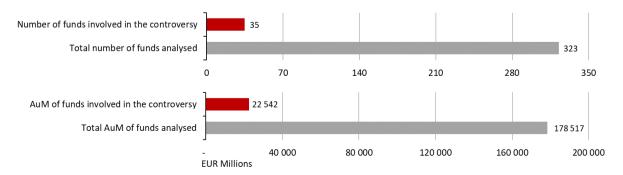
The 11.5% of ethical funds analysed includes in their top holdings Arctic oil companies. These funds are managing 13.0% of the analysed assets under management offered to Italian investors.

3.3.3. Offshore oil and gas companies

Marine and coastal ecosystems rely on the health of oceans and seas, which is the focus of SDGs' targets 14.1, 14.2, and 14.3. Offshore drilling areas put at risk the health of oceans, especially when oil spills happen (Kingston, 1992; Holdway, 2002; Rose, 2009; Seddiki, 2018; Zachos, 2018).

Figure 24 shows the presence of the "top 30 companies by offshore oil and gas reserves under production plus expansion reserves" (Offshore oil and gas companies), as sourced from Kirsch *et al.* (2020), in the top holdings of ethical mutual funds offered to Italian investors.

Figure 24. Number and AuM of ethical funds investing in offshore oil and gas companies compared to the total number and AuM of ethical funds analysed.



The 10.8% of ethical funds analysed includes in their top holdings offshore oil and gas companies. These funds are managing 12.6% of the analysed assets under management offered to Italian investors.

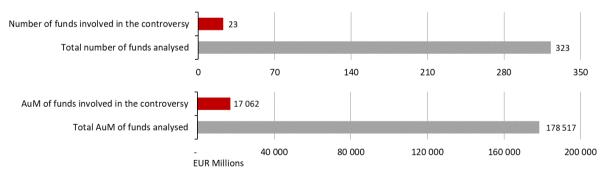
3.3.4. Tar sands oil companies

In northern Canada, tar sands companies are razing forests to access the tar sands oil below, destroying entire ecosystems (Greenfield, 2015). To extract the bitumen, these companies use enormous amounts of water that become extremely polluted and end up contaminating the soil and nearby wetlands (Environmental Defence, 2013; Greenfield, 2015). Tar sands operations are driving Canada's air pollution and acid rains (Liggio *et al.*, 2016; Firempong, 2018). Considering its whole life cycle, tar sands oil can be 30% more polluting than conventional oil (Firempong, 2018).

Although there is compelling evidence of the huge environmental and health impacts posed by tar sands oil, numerous fossil fuel companies are expanding their operations in this sector and new pipelines are being approved (Finkel, 2018; Kirsch *et al.*, 2020), harming the achievement of important SDGs' targets like 3.9, 6.3, 6.6, 15.1, 15.2, and 15.5.

Kirsch *et al.* (2020) list the "top 30 companies by tar sands reserves under production plus expansion reserves, and the five companies with existing or proposed pipelines to carry tar sands oil out of Alberta" (tar sands oil companies). In Figure 25 is presented an analysis of the presence of these companies in the top holdings of ethical mutual funds offered to Italian investors.

Figure 25. Number and AuM of ethical funds investing in tar sands oil companies compared to the total number and AuM of ethical funds analysed.



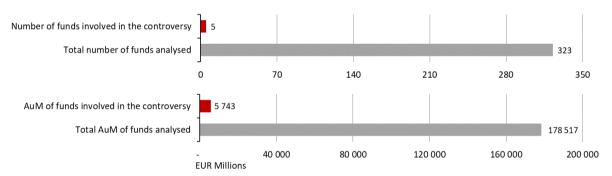
The 7.1% of ethical funds analysed includes in their top holdings tar sands oil companies. These funds are managing 9.6% of the analysed assets under management offered to Italian investors.

3.3.5. Fracked oil and gas companies

Fracking companies require enormous amount of water mixed with toxic chemicals in order to hydraulically fracture shale and extract oil or gas (Denchak, 2019). This process poses serious threats to water supplies and the contamination of water wells (Harrabin, 2016; Greenpeace, 2020; US EPA, 2020c), which are strictly related to SDGs' targets 6.3 and 6.6. The environmental impacts of fracking are not limited to the contamination of water (Mehany, 2016), in fact, the preparation of the site requires a complete clearing of land that affects local ecosystems and biodiversity. In this case, SDGs' targets 15.1, 15.5, and 15.5 are the most impacted (EcoHustler, 2018).

Figure 26 analyses the presence of the "top 30 companies by shale oil and gas reserves under production plus projected shale production between 2019 and 2050 from currently undrilled wells, and 10 key fracked oil and gas pipeline companies" (fracked oil and gas companies), listed by Kirsch *et al.* (2020), in the top holdings of ethical mutual funds offered to Italian investors.

Figure 26. Number and AuM of ethical funds investing in fracked oil and gas companies compared to the total number and AuM of ethical funds analysed.



The 1.5% of ethical funds analysed includes in their top holdings tar sands oil companies. These funds are managing 3.2% of the analysed assets under management offered to Italian investors.

3.3.6. Coal mining and coal power companies

Coal still accounts for 38% of worldwide electricity generation (International Energy Agency, 2018), despite coal-fired power plants' emissions of greenhouse gases are the highest per unit of energy produced compared to all other electricity sources (U.S. Energy Information Administration, 2016). This makes coal the primary target for dealing with climate change.

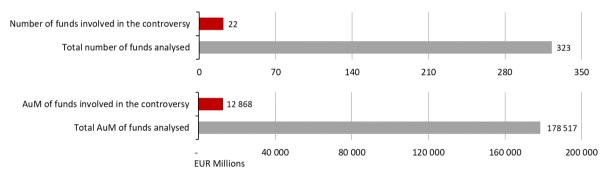
When coal is burnt it releases several toxins and pollutants that can harm people's health and ecosystems (EPA, 2020; U.S. Energy Information Administration, 2020; US EPA, 2020a, 2020b). Like air quality, also water wells are threatened by coal power plants' waste products (Schaeffer, Evans and Widawsky, 2009).

Surface coal mines can completely alter landscapes and local ecosystems (U.S. Energy Information Administration, 2020), while underground mines (which account for the biggest share of world coal production (World Coal Association, 2020)) constitutes dangerous working environments with poor working conditions (Lang, 2010; Malema, 2017; Pasley, 2019; Baloch and Ellis-Petersen, 2020).

To summarize, the principal SDGs' targets which are negatively impacted by this industry are 3.9, 6.3, 6.6, 7.1,7.2, 8.3, 8.4, 8.7, 8.8, 9.2, 9.4, 12.2, 12.4, 15.1, and 15.5.

From the combined list of the "top 30 companies by annual coal production" (coal mining companies) and the "top 30 coal power companies by installed plus planned coal power capacity" (coal power companies) sourced from Kirsch *et al.* (2020), Figure 27 highlights the presence of these companies in the top holdings of ethical mutual funds offered to Italian investors.

Figure 27. Number and AuM of ethical funds investing in coal mining and/or coal power companies compared to the total number and AuM of ethical funds analysed.



The 6.8% of ethical funds analysed includes in their top holdings coal mining companies and/or coal power companies. These funds are managing 7.2% of the analysed assets under management offered to Italian investors.

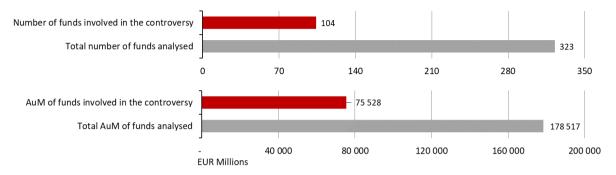
3.3.7. Banks financing fossil fuel companies

Financial companies play a crucial role in the global fight against climate change through their financing of fossil fuel companies and their fossil fuel related projects. Kirsch *et al.* (2020) found out that 35 private sector banks from Canada, United States, China, Europe, and Japan have approved USD 2.7 trillion in lending and underwriting to fossil fuel companies since the Paris Agreement (from 2016 to 2019). The biggest fossil bank was JPMorgan Chase, followed by Wells Fargo, and Bank of America. In Europe, Barclays was at the forefront of this controversial ranking. The two biggest Italian banks (Intesa Sanpaolo and Unicredit) were also present, with a combined USD 35.4 billion of fossil fuel financing.

By financing fossil fuel companies, these banks contribute to the negative impacts that controversial themes 1 to 6 have on SDGs.

Taking into account the 35 fossil banks analysed by Kirsch *et al.* (2020), this analysis verifies the presence of these financial institutions in the top holdings of ethical mutual funds offered to Italian investors (Figure 28).

Figure 28. Number and AuM of ethical funds investing in fossil banks compared to the total number and AuM of ethical funds analysed.



The 32.2% of ethical funds analysed includes in their top holdings banks financing fossil fuel companies. These funds are managing 42.3% of the analysed assets under management offered to Italian investors.

3.3.8. Arms-producing and military services companies

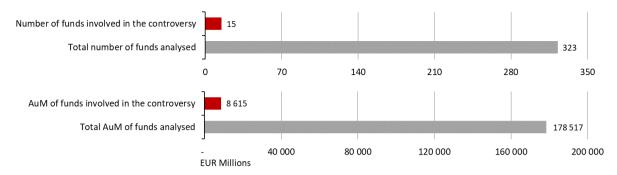
The 2020 SDGs Report highlights that armed conflicts worldwide are killing 100 civilians every day, despite protection from international laws (UN, 2020b).

According to a study from the Stockholm International Peace Research Institute (SIPRI) (2019) on arms transfers, arms imports in the Middle East (where numerous war crimes and severe human rights violation continue to take place) accounts for 35% of the global arms imports and they rose by 87% between 2009-2013 and 2014-2018, fuelled by the exports of western countries.

Amnesty International found out in its 2019 report on the human rights policies in the defence sector, that none of the 22 major arms companies contacted was able to adequately explain how they meet human rights responsibilities and demonstrate appropriate due diligence (Amnesty International, 2019).

Such a context poses serious questions about the alignment of arms-producing and military services companies with the SDGs' targets 16.1, 16.4, and 16.10. Therefore, this analysis seeks to evidence the presence of the top 100 arms-producing and military services companies, as listed by the SIPRI (2019b), in the top holdings of ethical mutual funds offered to Italian investors (Figure 29).

Figure 29. Number and AuM of ethical funds investing in arms-producing and military services companies compared to the total number and AuM of ethical funds analysed.



The 4.6% of ethical funds analysed includes in their top holdings arms-producing and military services companies. These funds are managing 4.8% of the analysed assets under management offered to Italian investors.

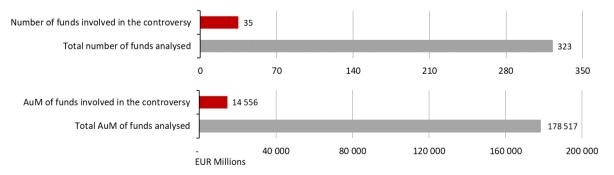
3.3.9. Countries retaining the death penalty

In 2019, 657 executions were recorded in 20 countries around the globe, without taking into account the thousands of executions kept secret by China (Amnesty International, 2020). The capital punishment violates the most fundamental human right, that is the right to life (UN, 1948), and it is often discriminatory (Rapaport, 1991; Baldus *et al.*, 1998, 2002).

Countries retaining the death penalty are therefore driving themselves away from the achievement of the SDGs' targets 10.3, 16.3, and 16.10.

This analysis takes into account the countries classified by Amnesty International as retentionists (countries that retain the death penalty for ordinary crimes (Amnesty International, 2020)) and verifies the presence of bonds issued by these countries in the top holdings of ethical mutual funds offered to Italian investors (Figure 30).

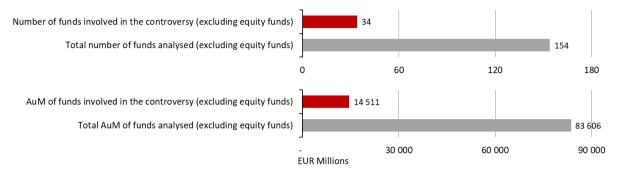
Figure 30. Number and AuM of ethical funds investing in bonds issued by countries retaining the death penalty compared to the total number and AuM of ethical funds analysed.



The 10.8% of ethical funds analysed includes in their top holdings countries retaining the death penalty. These funds are managing 8.2% of the analysed assets under management offered to Italian investors.

As in the analysis of this controversial theme only bonds are taken into account, Figure 31 excludes equity funds from the analysis (note that one fund involved in the controversy is an equity fund presenting in its top holdings short-term bonds issued by a retentionist country).

Figure 31. Number and AuM of ethical funds (excluding equity funds) investing in bonds issued by countries retaining the death penalty compared to the total number and AuM of ethical funds analysed (excluding equity funds).



Taking into account only fixed income, multi-asset, and money market funds, 22.1% of ethical funds analysed includes in their top holdings countries retaining the death penalty. These funds are managing 17.4% of the analysed assets under management offered to Italian investors (excluding equity funds).

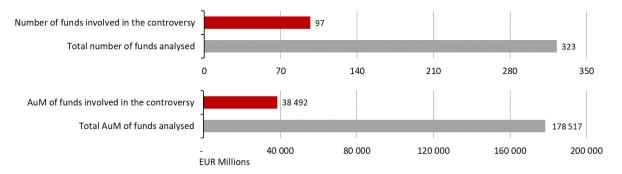
3.3.10. Animal testing companies

In its 2030 Agenda for Sustainable Development, the United Nations envisage a world "in which humanity lives in harmony with nature and in which wildlife and other living species are protected". Even though animal welfare is not included in the SDGs, the United Nations Environment Programme recognises its crucial role for sustainable development, in particular regarding the SDG 12 on sustainable consumption and production (Cox and Bridgers, 2019).

Each year, half a million animals are used for the testing of cosmetics products alone (Cox and Bridgers, 2019), and only the EU, India, Israel, Norway, New Zealand, Taiwan, and Canada are currently banning cosmetics testing on animals (Kretzer, 2020).

As part of its "Beauty Without Bunnies" programme, the People for Ethical Treatment of Animals (PETA) releases a list of companies that conduct tests on animals (PETA, 2020a). This analysis takes into account the companies included in PETA's list (companies that test on animals only when required by law are not included (PETA, 2020b)) and searches for the presence of animal testing companies in the top holdings of ethical mutual funds offered to Italian investors (Figure 32).

Figure 32. Number and AuM of ethical funds investing in animal testing companies compared to the total number and AuM of ethical funds analysed.



The 30.0% of ethical funds analysed includes in their top holdings companies testing on animals. These funds are managing 21.6% of the analysed assets under management offered to Italian investors.

3.3.11. Plastic polluting companies

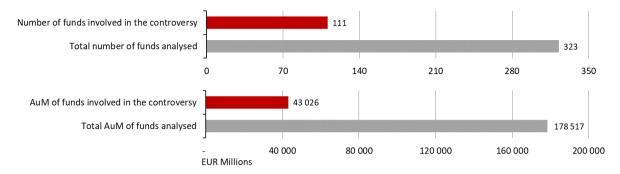
More than 8.3 billion tonnes of plastic have been produced since the early 1950s (Geyer, Jambeck and Law, 2017) and about 60% of that plastic has ended up in the environment (UNEP, 2020b). While the world is lacking proper waste-management systems, 8 million tonnes of plastic end up in the environment each year (Jambeck *et al.*, 2015). The entire life cycle of plastic (from the extraction of fossil fuels to disposal) is causing an unprecedented crisis for wildlife and human health (Critchell and Hoogenboom, 2018; Harvey and Watts, 2018; Peng *et al.*, 2018; Prata, 2018; Spary, 2018; Plastic Soup Foundation, 2020; Sobhani *et al.*, 2020).

MacKerron, McBee and Shugar (2020) analyse 50 of the worldwide largest companies leading the single-use plastic market on their policies for the reduction of plastic pollution. Their findings show that none of these companies is able to effectively address plastic pollution. Moreover, Delemare Tangpuori *et al.* (2020) highlight how pledges made by the biggest single-use plastic producers on addressing the issue often end up as no more than a trail of broken promises.

Without addressing the catastrophic impacts that the plastic industry is generating, SDGs' targets 2.4, 6.6, 8.4, 12.2, 12.4, 12.5, 14.1, 14.2, 15.1, and 15.5 are far from being achieved.

This analysis considers the 50 plastic polluting companies analysed by MacKerron, McBee and Shugar (2020) and verifies their presence in the top holdings of ethical mutual funds offered to Italian investors (Figure 33).

Figure 33. Number and AuM of ethical funds investing in plastic polluting companies compared to the total number and AuM of ethical funds analysed.



The 34.4% of ethical funds analysed includes in their top holdings plastic polluting companies. These funds are managing 24.1% of the analysed assets under management offered to Italian investors.

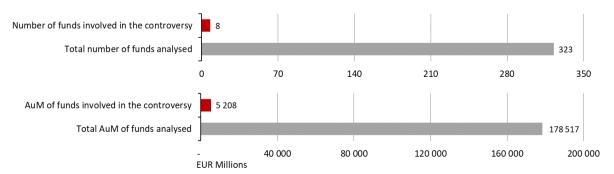
3.3.12. Highly hazardous pesticides (HHPs) companies

Highly hazardous pesticides have high acute toxicity and cause disproportionate harm to the environment and human health, since they present chronic toxic effects even at very low exposure levels and can be very persistent in the environment (FAO, 2020; UNEP, 2020a). While they irreversibly harm the environment and ecosystems of the areas in which they are used, people all around the world can be exposed to HHPs through the consumption of residues of pesticides in food and drinking water.

A joint investigation by Unearthed and Public Eye has found that the world's five biggest agrochemical giants are earning more than a third of their income from sales of HHPs which pose serious health hazards to humans and are highly toxic to bees (Dowler, 2020). The use of these chemicals threatens SDGs' targets like 2.4, 3.9, 6.6, 8.4, 12.2, 12.4, 15.1, and 15.5.

The five companies included in the investigation conducted by Unearthed and Public Eye (Dowler, 2020) are used by this analysis to investigate the presence of HHPs companies in the top holdings of ethical mutual funds offered to Italian investors (Figure 34).

Figure 34. Number and AuM of ethical funds investing in highly hazardous pesticides companies compared to the total number and AuM of ethical funds analysed.



The 2.5% of ethical funds analysed includes in their top holdings HHPs companies. These funds are managing 2.9% of the analysed assets under management offered to Italian investors.

3.3.13. Tobacco companies

Despite the well-known and documented effects of tobacco smoking on human health (U.S. Department of Health and Human Services, 2014), the tobacco industry's progress on harm reduction and smokers' transition to reduced-risk alternatives is extremely limited, according to the 2020 Tobacco Transformation Index by Foundation for a Smoke-Free World.

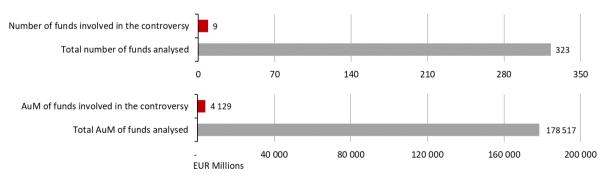
Tobacco cultivation has devastating consequences for the environment (Fornace *et al.*, 2019), and farmers often fail to make a living wage from it (Chavez *et al.*, 2016; Goma *et al.*, 2017; Makoka *et al.*, 2017; Drope *et al.*, 2018; Magati *et al.*, 2019). Moreover, tobacco farms are often employing child labours, even in the US (ILO and IPEC, 2006; Ramchandani, 2018; Unfairtobacco, 2020).

Cigarette butts are the most abundant type of plastic waste: 4.5 trillion cigarettes are littered in the environment each year (Araújo and Costa, 2019; Rubenstein, 2020), with the risk of being swallowed by animals (Santora, 2019).

In light of these facts, the entire life cycle of tobacco poses multiple challenges on sustainable development, in particular with regard to SDGs' targets 1.2, 3.9, 8.3, 8.7, 8.8, 12.2, 12.4, 12.5, 14.1, 14.2, 15.1, 15.2, and 15.5.

To analyse the presence of tobacco companies in the top holdings of ethical mutual funds offered to Italian investors (Figure 35), the list of publicly traded tobacco producer companies included by Shugar (2020) in its report on tobacco and healthcare company retirement plans is considered.

Figure 35. Number and AuM of ethical funds investing in tobacco companies compared to the total number and AuM of ethical funds analysed.



The 2.8% of ethical funds analysed includes in their top holdings tobacco companies. These funds are managing 2.3% of the analysed assets under management offered to Italian investors.

3.3.14. Companies and banks driving deforestation

The protection of tropical forests is essential to achieve the SDGs. Forests regulate ecosystems (Gibbs, Harris and Seymour, 2018; Harrison *et al.*, 2020), host 80% of the world's terrestrial biodiversity (WWF, 2020a), absorb one-third of the carbon dioxide released each year by burning fossil fuels (IUCN, 2020), and are vital for 1.6 billion rural people (mostly living in extreme poverty) who depend on them (OECD, 2008; Chao, 2012).

Despite the crucial role they play in sustainable development, tropical forests lost 1.9 million hectares of tree cover in 2019 alone (Weisse and Dow Goldman, 2020).

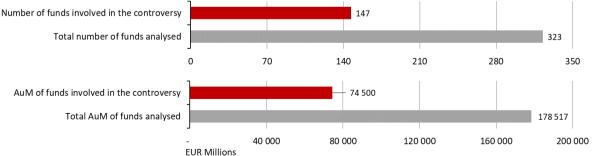
Emissions of greenhouse gases from deforestation account for 8% of global emissions (Gibbs, Harris and Seymour, 2018), and the fragmentation of forest ecosystems facilitates the transmission of zoonotic infections like Covid-19 (Bloomfield, McIntosh and Lambin, 2020).

The primary cause of deforestation is represented by the clearance of land for the production of commodities like beef, soy, palm oil, pulp, and paper (Hosonuma *et al.*, 2012). Companies operating in this sectors are driving violence towards Indigenous peoples (Butt *et al.*, 2019), they violate land rights (BenYishay *et al.*, 2017), and they are often using forced and child labour (World Vision Australia, 2012; Hill, 2014; Amnesty International, 2016).

Considering the strong connection between deforestation and sustainable development, at the very least SDGs' targets 1.2, 1.4, 2.4, 8.3, 8.4, 8.8, 9.2, 9.4, 12.2, 15.1, 15.2, and 15.5 are negatively impacted by the ongoing loss of forests.

Forestsandfinance.org (2020) reveals in its report the top 15 banks with the greatest global exposure to forest-risk sector financing, between 2016 and 2020. Rainforest Action Network (2020) lists in its report ten multinational brands, seven major banks, and ten forestry and agribusiness corporations fuelling the destruction of rainforests and the violation of human rights. Figure 36 considers the companies and banks analysed in these two reports and verifies their presence in the top holdings of ethical mutual funds offered to Italian investors.

Figure 36. Number and AuM of ethical funds investing in companies and/or banks driving deforestation compared to the total number and AuM of ethical funds analysed.

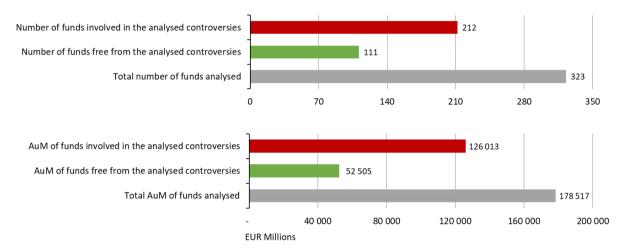


The 45.5% of ethical funds analysed includes in their top holdings companies and banks driving deforestation. These funds are managing 41.7% of the analysed assets under management offered to Italian investors.

3.3.15. Total funds investing in controversial themes

The 14 controversies analysed are the proof that Italian ethical retail investors entrusting their savings to ethical asset managers can easily fall prey to greenwashing practices. Figure 37 combines the results obtained for every single controversy and highlights the share of the Italian ethical mutual funds industry that could not be able to truly give purpose to Italian investors' money.

Figure 37. Number and AuM of ethical funds investing and not investing in controversial companies compared to the total number and AuM of ethical funds analysed.



The 65.6% of ethical funds analysed includes in their top holdings companies involved in at least one of the controversies analysed. These funds are managing the 70.6% of the analysed assets under management offered to Italian investors, meaning that more than two thirds of the ethical mutual funds' assets under management in the Italian market are delivering profits coming from dividends, interests, and/or capital gains associated with companies involved in some of the most harmful activities for sustainable development.

Despite the 76.6% of ethical mutual funds operating in the Italian market implement strategies of engagement and voting on sustainability matters, it is difficult to assess whether their involvement in such companies is led by a willingness to change their corporate behaviours or if it is only led by financial returns considerations. In the first case, detailed reports on the results of engagements and proxy voting (that are not just a mere list of AGMs attended) are essential to communicate to investors the reasons behind investments in such controversial companies.

Figure 38 and Figure 39 provide a deeper level analysis with a segmentation of the analysis by fund's category.

Figure 38. Number of ethical funds investing and not investing in controversial companies compared to the total number of ethical funds analysed, by fund's category.

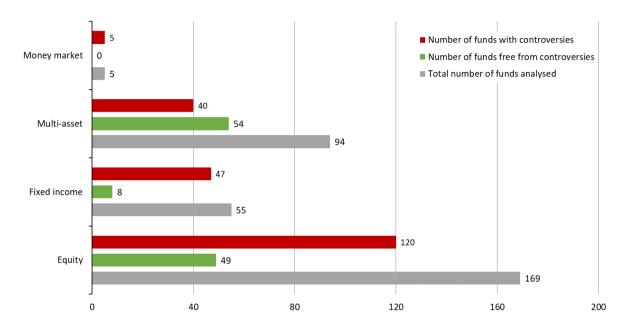
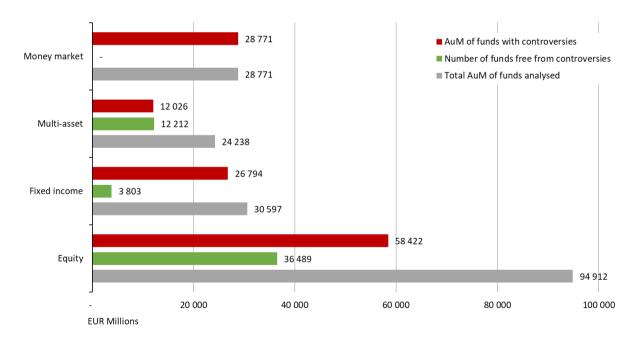
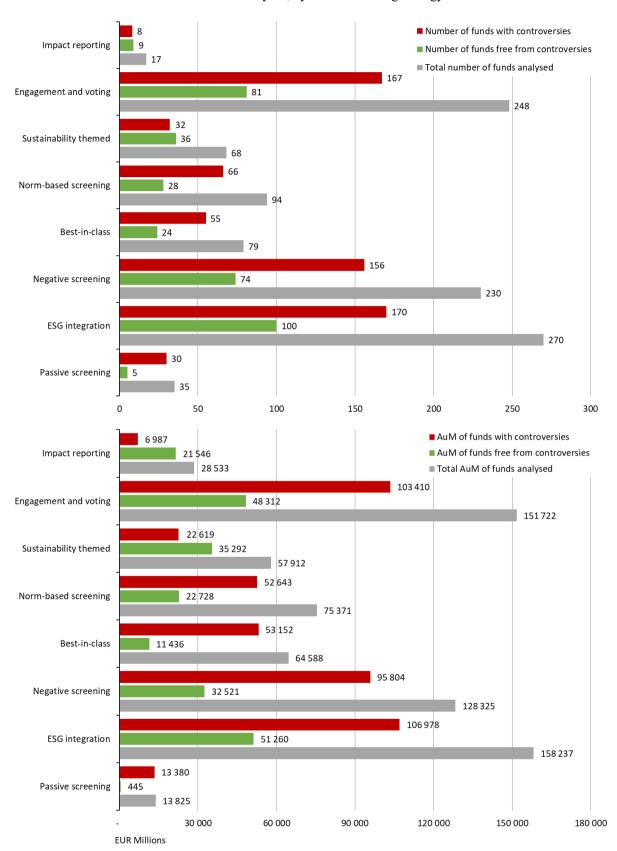


Figure 39. AuM of ethical funds investing and not investing in controversial companies compared to the total AuM of ethical funds analysed, by fund's category.



Only multi-asset funds free from any of the analysed controversies are more than their controversial peers. Fixed income funds, which are the ones employing more negative screens and less engagement and voting practices, are actually the ones with the highest share of controversial funds (85%), if the few money market funds analysed are not considered.

Figure 40. Number and AuM of ethical funds investing and not investing in controversial companies compared to the total number and AuM of ethical funds analysed, by ethical investing strategy.



Note. The total number and AuM obtained by summing each strategy differ from the total number and AuM of ethical mutual funds analysed as multiple strategies can be pursued simultaneously.

Figure 40 segments the analysis by ethical investing strategy. It visually shows which are the strategies more or less susceptible to greenwashing practices. Passive investing, which most of the time consists in blindly replicating the performance of an ethical, SRI, or ESG index, is the strategy with the highest probability of including in its portfolio investments in controversial companies. On the other side, impact reporting and sustainability themed are the only strategies in which the number of funds that do not include controversial companies in their top holdings is greater than the number of their controversial peers. It is no coincidence that these two ethical investing strategies are considered to be the most impact-oriented ones (Table 4).

Table 12 includes an anonymised list of the asset management groups considered in the study with their respective number of funds involved or not involved in any of the analysed controversies. The list is sorted by the total number of funds analysed belonging to each asset management group.

Table 12. Anonymised list of ethical mutual funds involved or not involved in any of the analysed controversies, by asset management group.

Asset Management Group	Total funds analysed	Controversial funds	Funds free from controversies	% of controversial funds
Asset Management Group 1	65	48	17	74%
Asset Management Group 2	51	20	31	39%
Asset Management Group 3	40	33	7	83%
Asset Management Group 4	36	23	13	64%
Asset Management Group 5	25	18	7	72%
Asset Management Group 6	14	10	4	71%
Asset Management Group 7	10	6	4	60%
Asset Management Group 8	8	7	1	88%
Asset Management Group 9	8	6	2	75%
Asset Management Group 10	6	3	3	50%
Asset Management Group 11	6	2	4	33%
Asset Management Group 12	6	1	5	17%
Asset Management Group 13	5	4	1	80%
Asset Management Group 14	5	3	2	60%
Asset Management Group 15	4	4	0	100%
Asset Management Group 16	4	3	1	75%
Asset Management Group 17	3	2	1	67%
Asset Management Group 18	2	2	0	100%

Asset Management Group	Total funds analysed	Controversial funds	Funds free from controversies	% of controversial funds
Asset Management Group 19	2	2	0	100%
Asset Management Group 20	2	2	0	100%
Asset Management Group 21	2	2	0	100%
Asset Management Group 22	2	1	1	50%
Asset Management Group 23	2	1	1	50%
Asset Management Group 24	2	1	1	50%
Asset Management Group 25	2	1	1	50%
Asset Management Group 26	2	1	1	50%
Asset Management Group 27	1	1	0	100%
Asset Management Group 28	1	1	0	100%
Asset Management Group 29	1	1	0	100%
Asset Management Group 30	1	1	0	100%
Asset Management Group 31	1	1	0	100%
Asset Management Group 32	1	1	0	100%
Asset Management Group 33	1	0	1	0%
Asset Management Group 34	1	0	1	0%
Asset Management Group 35	1	0	1	0%

From Table 12, it emerges that only 3 out of the 35 asset management groups analysed have an offering of ethical funds that is completely free from any of the controversies considered in the study, while 11 asset management groups have an ethical offering that is entirely controversial. Only 17.1% of the asset management groups operating in the Italian ethical mutual funds market is offering more funds that are free from the analysed controversies than controversial funds.

Table 13. Anonymised list of the AuM (in EUR millions) of ethical mutual funds involved or not involved in any of the analysed controversies, by asset management group.

Asset Management Group	Total AuM analysed	Controversial funds' AuM	Funds free from controversies' AuM	% of controversial funds' AuM
Asset Management Group 1	43,478	41,061	2,417	94%
Asset Management Group 2	17,172	11,037	6,135	64%
Asset Management Group 3	23,045	20,058	2,987	87%
Asset Management Group 4	29,874	15,323	14,551	51%

Asset Management Group	Total AuM analysed	Controversial funds' AuM	Funds free from controversies' AuM	% of controversial funds' AuM
Asset Management Group 5	11,785	8,773	3,012	74%
Asset Management Group 6	6,903	6,576	327	95%
Asset Management Group 7	20,738	6,644	14,094	32%
Asset Management Group 8	1,451	1,253	198	86%
Asset Management Group 9	2,409	1,822	587	76%
Asset Management Group 10	916	535	381	58%
Asset Management Group 11	369	69	301	19%
Asset Management Group 12	5,251	425	4,825	8%
Asset Management Group 13	682	650	31	95%
Asset Management Group 14	600	165	435	28%
Asset Management Group 15	946	946	0	100%
Asset Management Group 16	982	826	155	84%
Asset Management Group 17	3,581	3,523	58	98%
Asset Management Group 18	301	301	0	100%
Asset Management Group 19	1,168	1,168	0	100%
Asset Management Group 20	827	827	0	100%
Asset Management Group 21	518	518	0	100%
Asset Management Group 22	432	236	195	55%
Asset Management Group 23	2,014	818	1,196	41%
Asset Management Group 24	603	317	286	53%
Asset Management Group 25	399	303	96	76%
Asset Management Group 26	191	76	116	40%
Asset Management Group 27	369	369	0	100%
Asset Management Group 28	239	239	0	100%
Asset Management Group 29	846	846	0	100%
Asset Management Group 30	204	204	0	100%
Asset Management Group 31	70	70	0	100%
Asset Management Group 32	33	33	0	100%
Asset Management Group 33	21	0	21	0%
Asset Management Group 34	86	0	86	0%
Asset Management Group 35	14	0	14	0%

Note. Each asset management group correspond to the asset management group of Table 12 with the same number.

Table 13 proposes the same analysis of Table 12, but it considers the AuM of the funds involved or not involved in any of the analysed controversies. It points up that 25.7% of the asset management groups operating in the Italian ethical mutual funds market is managing a higher share of its AuM through funds that are free from the analysed controversies than through controversial funds. On the other hand, 42.9% of asset management groups are managing more than 90% of their respective AuM through controversial mutual funds.

The booming of the Italian ethical finance industry described by Eurosif in its 2018 European SRI Study and shown by Figure 7 and Figure 8, combined with the controversial picture described by this study, inevitably poses questions about the actual ethical nature of the mutual funds offered in the market. Behind exclusions, ESG integration, positive screenings, and engagement and voting practices, an important number of ethical investing funds is concealing participations in some of the most unethical and unsustainable businesses.

It is fair doubting that these funds entered the market with the sole purpose of intercepting the wealth shift happening due to the changing preferences of investors towards sustainable and ethical solutions.

In light of these considerations, Italian ethical retail investors who are keen to avoid investments in greenwashing funds have to distrust the sole classification of a fund as ethical or sustainable and responsible, and rely on other sources of information, such as rating systems.

Morningstar is one of the most important rating companies of the sector and with its Morningstar sustainability rating for funds it seeks to help investors understand the total ESG risk of a fund's portfolio. Nonetheless, from this study, it emerges that a higher Morningstar sustainability rating is not associated with a lower probability of investing in funds that are involved in unethical and unsustainable companies (Table 14). It is actually more probable to invest in a fund that has no involvement in unethical and unsustainable firms, if the fund is not rated by Morningstar.

Table 14. Number of ethical mutual funds involved in at least one of the controversies analysed by their Morningstar sustainability rating.

Morningstar sustainability rating icon	Total funds analysed	Controversial funds	Funds free from controversies	% of controversial funds
	66	47	19	71%
	84	67	17	80%
	47	34	13	72%
	16	10	6	63%

Morningstar sustainability rating icon	Total funds analysed	Controversial funds	Funds free from controversies	% of controversial funds
	8	5	3	63%
No rating	102	49	53	48%

Against this background, Morningstar seems to fail to signal greenwashing threats through its current sustainability rating system.

As the nowadays major societal issues are tied to climate change and the protection of the environment, this study also verifies if the Morningstar portfolio carbon risk score and the Morningstar's measure of the fossil fuel exposure of a portfolio represent valid greenwashing warning lights.

Ethical mutual funds offered to Italian investors receiving a carbon risk score by Morningstar are only 130 and are concentrated between low and middle risk scores (Figure 20). Moreover, funds with a medium portfolio carbon risk are too few to effectively verify if a higher portfolio carbon risk score is associated with a higher share of controversial funds (Table 15).

Table 15. Number of ethical mutual funds involved in at least one of the controversies analysed by their Morningstar portfolio carbon risk score.

Morningstar portfolio carbon risk score	Total funds analysed	Controversial funds	Funds free from controversies	% of controversial funds
Negligible risk	0	0	0	-
Low risk	106	84	22	79%
Medium risk	24	14	10	58%
High risk	0	0	0	-
Severe risk	0	0	0	-
No rating	193	114	79	59%

When the Morningstar's measure of the fossil fuel exposure of a portfolio is considered, a strong positive correlation between the portfolio's exposure to fossil fuel companies and the probability of investing in a controversial fund is found (Table 16). However, the small number of funds with a high exposure to fossil fuels and the high number of funds with no data about their fossil fuel exposure make this statistic not solid enough.

Table 16. Number of ethical mutual funds involved in at least one of the controversies analysed by their portfolio's fossil fuel exposure, as measured by Morningstar.

Portfolio's fossil fuel exposure	Total funds analysed	Controversial funds	Funds free from controversies	% of controversial funds
Lower than 6.9%	88	62	26	70%
Between 7% and 9.9%	24	19	5	79%
Between 10% and 19.9%	10	9	1	90%
Between 20% and 29.9%	6	6	0	100%
Higher than or equal to 30%	2	2	0	100%
No data	193	114	79	59%

Overall, Table 14, Table 15 and Table 16 highlight that the sustainability ratings offered by Morningstar are not able to channel ethical investors' investment choices towards mutual funds that are not involved in unethical and unsustainable businesses.

In such a context, it is possible to conclude that achieving good for the society and for the planet through investments in mutual funds is not an easy task for Italian retail investors. Allowing them to have access to sustainable and responsible investments without incur the threat of greenwashing practices is a challenge that the Italian ethical finance market must consider in order to continue to expand without giving up on its founding principle, that is building a sustainable economy, which cares about social relationships and natural resources, respects future generations, and is committed to the improvement of each individual's wellbeing (Messina, 2004).

Conclusion

The ethical, or SRI, mutual funds investment market in Italy is booming. Since 2016, the number of ethical mutual funds more than duplicated, while the total AuM of these funds more than triplicated. This strong growth is fuelled by the great intergenerational shift of wealth from boomers to millennials (happening right now and forecasted to last until 2050) (Pigliucci, Thompson and Halverson, 2015), who increasingly want their savings to have a positive societal impact and are determining an overall change in preferences in the market (Department for International Development, 2019; Morgan Stanley Institute for Sustainable Investing, 2019; BlackRock, 2020). In order to catch this trend, asset managers are consistently broadening their current offering of ethical investment products.

Behind their ethical or SRI classification, not all of these funds seem able to address the need of ethical investors to give purpose to their money and generate positive societal impacts through their investments. This analysis shows that 65.6% of ethical mutual funds offered in the Italian market (that is 212 out of 323 analysed funds) are concealing participations in some of the most unethical and unsustainable businesses. This means that more than two thirds of the assets offered in the Italian market (70.6% of the analysed AuM) are delivering profits coming from dividends, interests, and/or capital gains associated with companies involved in activities that are damaging the global path towards sustainable development.

Against this background, Italian ethical retail investors face significant threats of greenwashing practices and need to receive more protection. The classification of a fund as ethical or SRI alone is not enough and investors must rely on other sources of information in order to assess how ethical these funds are, such as rating systems. Morningstar, one of the most important rating companies of the sector, produces a sustainability rating only for 221 funds out of the total 346 ethical mutual funds offered to Italian investors and releases a portfolio's carbon risk score only for 130 funds. Moreover, it seems to be failing to signal greenwashing practices through its current sustainability rating system, since there is no sign of a correlation between a good Morningstar sustainability rating and a lower probability of investing in a fund concealing participations in unethical and unsustainable businesses. This arises concerns about the presence of conflicts of interests in rating companies, that lead to the assignment of generous ratings or no ratings at all.

In some European countries labelling systems have been established, and the European Commission is currently working on the development of the EU Ecolabel and its extension to financial products. The introduction of an EU Ecolabel with stringent requirements for asset managers, could prevent greenwashing practices and protect ethical retail investors' interests.

Discriminating between the different ethical investing strategies adopted by ethical mutual funds, this study evidences that sustainability themed investing and impact reporting stand out as the most ethical investment approaches. Funds producing impact reports and funds investing in specific themes related to sustainability showed to be less susceptible to greenwashing practices: they represent the only ethical investing strategies in which the number of SRI mutual funds with no involvement in unethical and unsustainable companies is higher than the number of SRI mutual funds investing in securities related to these controversial firms.

Altogether the findings of this analysis suggest that the current Italian ethical investing mutual funds market is mostly failing to generate the positive societal impacts wished by ethical investors. Savers willing to contribute to sustainable development through their investments must move inside the spectrum of capital (Bridges Ventures, 2015) to more impact-oriented investment solutions, like impact investing. However, impact investing's characteristics intrinsically limit it to alternative investments in private markets (Brest, Gilson and Wolfson, 2018), which are restricted to professional and institutional investors by the European legislations MiFID II and AIFMD. In Italy, in order to relax this restriction and channel savings towards the financing of the vast Italian ecosystem of small and medium enterprises (SMEs), the government gave birth, in 2017, to a new investment solution called PIR³⁶. PIRs are allowed to invest part of their capital in private equities and could therefore represent the gateway to impact investment opportunities for Italian ethical retail investors. Moreover, in the US, the SEC³⁷ is considering to expand the retail access to private equity funds by eliminating the restriction to accredited investors (Flood, 2020). If the EU will follow the SEC's line of thought, and PIRs will embrace the ethical finance paradigm, ethical and impact-oriented retail investors could finally gain access to an investment solution that has proven its alignment with the Sustainable Development Goals (GIIN, 2016; Eurosif, 2018b; UNDP, 2020).

³⁶ Piani Individuali di Risparmio (PIRs) are an investment solution introduced in Italy by the law n.232/2016, which are designed to channel Italian retail investors' savings towards small and medium Italian enterprises. The 70% of their AuM has to be invested in Italian companies, and the 30% of this 70% has to be invested in companies that are not included in the FTSE MIB. By holding investments in a PIR for at least 5 years, Italian retail investors benefit from a total tax exemption on capital gains and financial incomes.

³⁷ The US Securities and Exchange Commission (SEC) is the federal agency supervising and regulating the securities industry.

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Appendix A

Table 17. Sustainable and responsible funds included in the Assogestioni's database of open funds and SICAVs. Updated as at October 31, 2020.

NISI	Asset Management Group	Name of the Fund
LU2034159157	ALLIANZ	ALLIANZ GLOBAL INVESTORS FUND C.TO ALLIANZ BEST STYLES EMERGING MARKETS EQUITY SRI
LU2034156138	ALLIANZ	ALLIANZ GLOBAL INVESTORS FUND C.TO ALLIANZ BEST STYLES GLOBAL EQUITY SRI
FR0013106713	ALLIANZ	ALLIANZ SECURICASH SRI
FR0010773242	AMUNDI GROUP	AMUNDI ACTIONS EURO ISR
FR0010175232	AMUNDI GROUP	AMUNDI ACTIONS USA ISR
FR0013016615	AMUNDI GROUP	AMUNDI CASH INSTITUTIONS SRI
FR0010188136	AMUNDI GROUP	AMUNDI CONVERTIBLES EUROLAND
FR0010749853	AMUNDI GROUP	AMUNDI CREDIT EURO ISR
FR0013340932	AMUNDI GROUP	AMUNDI RESPONSIBLE INVESTING C.TO EUROPEAN HIGH YIELD SRI
LU2151177313	AMUNDI GROUP	AMUNDI FUNDS C.TO EUROPEAN EQUITY ESG IMPROVERS
LU2018721972	AMUNDI GROUP	AMUNDI FUNDS C.TO EUROPEAN EQUITY GREEN IMPACT
LU1998915372	AMUNDI GROUP	AMUNDI FUNDS C.TO EUROPEAN EQUITY TARGET INCOME
LU1998915539	AMUNDI GROUP	AMUNDI FUNDS C.TO GLOBAL ECOLOGY ESG
LU2002722424	AMUNDI GROUP	AMUNDI FUNDS C.TO GLOBAL EQUITY TARGET INCOME
LU1050469441	AMUNDI GROUP	AMUNDI FUNDS C.TO INDEX BOND EURO CORPORATE
LU1926208726	AMUNDI GROUP	AMUNDI FUNDS C.TO JAPAN EQUITY
LU2036673882	AMUNDI GROUP	AMUNDI FUNDS C.TO MULTI-ASSET SUSTAINABLE FUTURE
LU1998920455	AMUNDI GROUP	AMUNDI FUNDS C.TO TOTAL HYBRID BOND
LU1883874031	AMUNDI GROUP	AMUNDI FUNDS C.TO US PIONEER FUND
LU2182388582	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI EURO ISTOXX CLIMATE PARIS ALIGNED PAB
LU1737653987	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX EURO AGG CORPORATE SRI

ISIN	Asset Management Group	Name of the Fund
LU2182388236	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX EURO AGG SRI
LU2037748774	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX EURO CORPORATE SRI 0-3 Y
LU2109787635	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX MSCI EMU SRI
LU2130768844	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX MSCI EUROPE CLIMATE CHANGE
LU2059756598	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX MSCI EUROPE SRI
LU1806495575	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI INDEX US CORP SRI
LU2109787551	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI EMERGING ESG LEADERS
LU2109787049	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI EMERGING ESG UNIVERSAL SELECT
LU2109786827	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI EMU ESG UNIVERSAL SELECT
LU2182388319	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI EUROPE CLIMATE PARIS ALIGNED PAB
LU2109787478	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI EUROPE ESG LEADERS SELECT
LU2109786744	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI EUROPE ESG UNIVERSAL SELECT
LU2153616599	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI USA
LU2109787395	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI USA ESG LEADERS SELECT
LU2109786660	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI USA ESG UNIVERSAL SELECT
LU2182388400	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI WORLD CLIMATE PARIS ALIGNED PAB
LU2109787122	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI WORLD ESG LEADERS SELECT
LU2109786587	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO AMUNDI MSCI WORLD ESG UNIVERSAL SELECT
LU1437025296	AMUNDI GROUP	AMUNDI INDEX SOLUTIONS C.TO FTSE 100
LU1650523076	AMUNDI GROUP	AMUNDI INVESTMENT FUNDS C.TO EMERGING MARKETS EQUITY ENGAGEMENT
IT0005114993	AMUNDI GROUP	AMUNDI ACCUMULAZIONE ATTIVA LOW CARBON
IT0005118606	AMUNDI GROUP	AMUNDI ACCUMULAZIONE ATTIVA LOW CARBON DUE
IT0005189094	AMUNDI GROUP	AMUNDI ACCUMULAZIONE LOW CARBON QUATTRO

NISI	Asset Management Group	Name of the Fund
IT0005125106	AMUNDI GROUP	AMUNDI ACCUMULAZIONE LOW CARBON TRE
IT0005125064	AMUNDI GROUP	AMUNDI BEST SELECTION CLASSIC
IT0005125049	AMUNDI GROUP	AMUNDI BEST SELECTION PLUS
IT0005125080	AMUNDI GROUP	AMUNDI BEST SELECTION TOP
IT0005323701	AMUNDI GROUP	AMUNDI OBIETTIVO CRESCITA SOSTENIBILE 2023
IT0005331902	AMUNDI GROUP	AMUNDI OBIETTIVO CRESCITA SOSTENIBILE 2023 DUE
170005336703	AMUNDI GROUP	AMUNDI OBIETTIVO CRESCITA SOSTENIBILE 2023 TRE
IT0005381907	AMUNDI GROUP	AMUNDI PRIVATE SOSTENIBILE 2023
170005396905	AMUNDI GROUP	AMUNDI SELEZIONE SOSTENIBILE 2025
IT0005406845	AMUNDI GROUP	AMUNDI SELEZIONE SOSTENIBILE 2025 DUE
LU1965337295	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE CAMBIAMENTO CLIMATICO
LU2007205631	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE CAMBIAMENTO CLIMATICO II
LU2122995454	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE CITTÀ FUTURE
LU2180173630	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE CITTÀ FUTURE (II)
LU2122995298	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE MEDICAL INNOVATION
LU2180173473	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE MEDICAL INNOVATION (II)
LU1655258330	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE SOSTENIBILE
LU1720525762	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE SOSTENIBILE II
LU1774630195	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE SOSTENIBILE III
LU1826339092	AMUNDI GROUP	AMUNDI SOLUZIONI ITALIA C.TO PROGETTO AZIONE SOSTENIBILE IV
IT0004814213	AMUNDI GROUP	PIONEER OB. EURO CORPORATE ETICO
FR0011354646	AMUNDI GROUP	CPR ACTIONS FRANCE - PART AMUNDI INDICIA FRANCE
LU2090778338	AMUNDI GROUP	CPR INVEST C.TO CLIMATE ACTION

																						MIC BOND FUND	
Name of the Fund	CPR INVEST C.TO EDUCATION	CPR INVEST C.TO FOOD FOR GENERATIONS	CPR INVEST C.TO FUTURE CITIES	CPR INVEST C.TO GLOBAL SILVER AGE	CPR INVEST C.TO MEDTECH	CPR INVEST C.TO SMART TRENDS	CPR INVEST C.TO SOCIAL IMPACT	SG MONETAIRE ISR	ANIMA ESALOGO AZIONARIO GLOBALE	ANIMA ESALOGO BILANCIATO	ANIMA ESALOGO OBBLIGAZIONARIO CORPORATE	ANIMA PICPAC ESALOGO BILANCIATO 2023	ARCA AZIONI AMERICA ESG LEADERS	ARCA AZIONI FAR EAST ESG LEADERS	ARCA GREEN LEADERS	ARCA OPPORTUNITÀ SOSTENIBILI 2025	ARCA OPPORTUNITÀ SOSTENIBILI 2025 II	ARCA OPPORTUNITÀ SOSTENIBILI 2025 III	ARCA OPPORTUNITÀ SOSTENIBILI 2025 IV	AXA WORLD FUNDS C.TO FRAMLINGTON EUROZONE RI	AXA WORLD FUNDS C.TO HUMAN CAPITAL	BNY MELLON GF C.TO BNY MELLON SUSTAINABLE GLOBAL DYNAMIC BOND FUND	
Asset Management Group	AMUNDI GROUP	AMUNDI GROUP	AMUNDI GROUP	AMUNDI GROUP	AMUNDI GROUP	AMUNDI GROUP	AMUNDI GROUP	AMUNDI GROUP	ANIMA HOLDING	ANIMA HOLDING	ANIMA HOLDING	ANIMA HOLDING	ARCA	ARCA	ARCA	ARCA	ARCA	ARCA	ARCA	AXA IM	AXA IM	BNY MELLON INVESTMENT MANAGEMENT	
NISI	LU2090778254	LU2090778171	LU2090778411	LU2090777793	LU2125047774	LU2090778502	LU2125047345	FR0010423228	IT0005411761	IT0005411803	IT0005398984	IT0005402018	IT0005419103	IT0001033528	IT0005396616	IT0005392011	IT0005399636	IT0005412652	IT0005418683	LU0545090143	LU0372523448	IE00BFZMGR40	

NISI	Asset Management Group	Name of the Fund
IE0030820504	BNY MELLON INVESTMENT MANAGEMENT	BNY MELLON GF C.TO EUROPEAN ETHICAL INDEX TRACKER
LU2059770235	CANDRIAM	CANDRIAM SRI C.TO BOND EMERGING MARKETS
LU1313770023	CANDRIAM	CANDRIAM SRI C.TO BOND EURO
LU1313770882	CANDRIAM	CANDRIAM SRI C.TO BOND EURO CORPORATE
LU1434522634	CANDRIAM	CANDRIAM SRI C.TO BOND EURO SHORT TERM
LU2211182436	CANDRIAM	CANDRIAM SRI C.TO BOND GLOBAL
LU1644441476	CANDRIAM	CANDRIAM SRI C.TO BOND GLOBAL HIGH YIELD
LU1644442367	CANDRIAM	CANDRIAM SRI C.TO DEFENSIVE ASSET ALLOCATION
LU2109441258	CANDRIAM	CANDRIAM SRI C.TO EQUITY CIRCULAR ECONOMY
LU1932634295	CANDRIAM	CANDRIAM SRI C.TO EQUITY CLIMATE ACTION
LU1434524416	CANDRIAM	CANDRIAM SRI C.TO EQUITY EMERGING MARKETS
LU1313771427	CANDRIAM	CANDRIAM SRI C.TO EQUITY EMU
LU1313772151	CANDRIAM	CANDRIAM SRI C.TO EQUITY EUROPE
LU1507501481	CANDRIAM	CANDRIAM SRI C.TO EQUITY NORTH AMERICA
LU1797946917	CANDRIAM	CANDRIAM SRI C.TO EQUITY PACIFIC
LU1434528169	CANDRIAM	CANDRIAM SRI C.TO EQUITY WORLD
LU1434529050	CANDRIAM	CANDRIAM SRI C.TO MONEY MARKET EURO
BE0174191768	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUISTAINABLE PACIFIC
BE0943336116	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE EURO BONDS
BE0945493345	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE EURO CORPORATE BONDS
BE0173540072	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE EUROPE
BE0169199313	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE HIGH
BE0159412411	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE LOW

ISIN	Asset Management Group	Name of the Fund
BE0159411405	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE MEDIUM
BE0946893766	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE WORLD
BE0945478197	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTAINABLE WORLD BONDS
BE0173901779	CANDRIAM	CANDRIAM SUSTAINABLE C.TO SUSTINABLE NORTH AMERICA
IT0005385288	CONSULTINVEST	CONSULTINVEST MOSAICO - FONDO ETICO
LU1891411578	CREDIT SUISSE	CREDIT SUISSE INDEX FUND (LUX) C.TO EQUITY JAPAN ESG BLUE
LU2031940054	CREDIT SUISSE	CS IF 2 C.TO CS (LUX) EDUTAINMENT EQUITY FUND
IT0005391575	CREDITO EMILIANO	EUROMOBILIARE ACCUMULO SMART ATTIVO
IT0005368037	CREDITO EMILIANO	EUROMOBILIARE CITIES 4 FUTURE
IT0005402976	CREDITO EMILIANO	EUROMOBILIARE GREEN 4 PLANET
IT0005391609	CREDITO EMILIANO	EUROMOBILIARE INNOVATION 4 FUTURE
IT0005390254	CREDITO EMILIANO	EUROMOBILIARE SCIENCE 4 LIFE
LU1492371270	CREDITO EMILIANO	EUROFUND LUX C.TO AZIONARIO GLOBALE ESG ESG
LU1558189210	CREDITO EMILIANO	EUROFUND LUX C.TO EURO SUSTAINABLE CORPORATE BOND ESG
LU2164648771	CREDITO EMILIANO	EUROFUND LUX C.TO GLOBAL ENHANCED DIVIDEND — GEDI ESG
IT0005336877	ETICA	ETICA AZIONARIO
IT0005336851	ETICA	ETICA BILANCIATO
IT0005341943	ETICA	ETICA IMPATTO CLIMA
IT0004782352	ETICA	ETICA OBBLIGAZIONARIO BREVE TERMINE
IT0005336893	ETICA	ETICA OBBLIGAZIONARIO MISTO
IT0005117558	ETICA	ETICA RENDITA BILANCIATA
LU0272267526	FRANKLIN TEMPLETON INVESTMENTS	FRANKLIN TEMPLETON INVESTMENT FUNDS C.TO TEMPLETON GLOBAL CLIMATE CHANGE FUND
LU2028911365	FRANKLIN TEMPLETON INVESTMENTS	FRANKLIN TEMPLETON OPPORTUNITIES FUNDS C.TO FRANKLIN GREEN TARGET INCOME 2024 FUND

ISIN	Asset Management Group	Name of the Fund
FR0010589275	GROUPAMA ASSET MANAGEMENT	EURO CAPITAL DURABLE
LU2056384402	GRUPPO AZIMUT	AZ FUND 1 C.TO AZ BOND – SUSTAINABLE HYBRID
LU2075862008	GRUPPO AZIMUT	AZ FUND 1 C.TO AZ EQUITY - GLOBAL ESG
FR0013302155	GRUPPO BNP PARIBAS	BNP PARIBAS AQUA
FR0013229937	GRUPPO BNP PARIBAS	BNP PARIBAS CEDOLA SOSTENEBILE 2021
FR0011383058	GRUPPO BNP PARIBAS	BNP PARIBAS DEVELOPPEMENT HUMAIN
FR0013496221	GRUPPO BNP PARIBAS	BNP PARIBAS GLOBAL MEGATREND PROTECTION 85
FR0013302130	GRUPPO BNP PARIBAS	BNP PARIBAS IMMOBILIER RESPONSABLE
FR0013403409	GRUPPO BNP PARIBAS	THEAM QUANT EUROPE CLIMATE CARBON OFFSET PLAN
LU1953136873	GRUPPO BNP PARIBAS	BNP PARIBAS EASY C.TO ECPI CIRCULAR ECONOMY LEADERS
LU1953137921	GRUPPO BNP PARIBAS	BNP PARIBAS EASY C.TO MSCI EMU SRI S-SERIES 5% CAPPED
LU1860554978	GRUPPO BNP PARIBAS	BNP PARIBAS EASY C.TO MSCI EUROPE SRI S-SERIES 5% CAPPED
LU2118277693	GRUPPO BNP PARIBAS	BNP PARIBAS EASY C.TO MSCI USA SRI S-SERIES 5% CAPPED
LU1620156130	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO AQUA
LU1721428347	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO CLIMATE IMPACT
LU0823415285	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO ENERGY TRANSITION
LU2066067385	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO ENV. ABSOLUTE RETURN THEMATIC EQUITY (EARTH)
LU1664648976	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO EURO MULTI-FACTOR CORPORATE BOND
LU1956136052	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO EUROPE MULTI-FACTOR EQUITY
LU0823428189	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO GERMANY MULTI-FACTOR EQUITY
LU0347712431	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO GLOBAL ENVIRONMENT
LU0823418974	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO GLOBAL LOW VOL EQUITY
LU1956137290	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO GLOBAL MULTI-FACTOR EQUITY

NISI	Asset Management Group	Name of the Fund
LU1620157534	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO GREEN BOND
LU0823438816	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO GREEN TIGERS
LU1165136844	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO HUMAN DEVELOPMENT
LU1956138777	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO JAPAN MULTI-FACTOR EQUITY
LU2066072385	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SMART FOOD
LU1819949246	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE ENHANCED BOND 12M
LU0828231075	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE EURO BOND
LU0265317569	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE EURO CORPORATE BOND
LU1844093994	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE GLOBAL CORPORATE BOND
LU1956155789	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE MULTI-ASSET BALANCED
LU1956156910	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE MULTI-ASSET GROWTH
LU1956160789	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO SUSTAINABLE MULTI-ASSET STABILITY
LU1956164856	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO US MULTI-FACTOR EQUITY
LU1956131764	GRUPPO BNP PARIBAS	BNP PARIBAS C.TO US VALUE MULTI-FACTOR EQUITY
FR0012686046	GRUPPO BNP PARIBAS	FUNDQUEST SICAV C.TO ETHISWORLD
LU1353196436	GRUPPO BNP PARIBAS	THEAM QUANT C.TO EQUITY EUROPE CLIMATE CARE
LU1685644657	GRUPPO BNP PARIBAS	THEAM QUANT C.TO EQUITY WORLD GLOBAL GOALS
LU1555072336	GRUPPO CASSA CENTRALE BANCA	NEF C.TO ETHICAL BALANCED CONSERVATIVE
LU1555163135	GRUPPO CASSA CENTRALE BANCA	NEF C.TO ETHICAL BALANCED DYNAMIC
LU2051778764	GRUPPO CASSA CENTRALE BANCA	NEF C.TO ETHICAL GLOBAL TRENDS SDG
LU1555162913	GRUPPO CASSA CENTRALE BANCA	NEF C.TO ETHICAL TOTAL RETURN BOND
LU1122764910	GRUPPO DEUTSCHE BANK	DB ADVISORY MULTIBRANDS C.TO AMUNDI ESG SUSTAINABLE BALANCED
LU1947594799	GRUPPO DEUTSCHE BANK	DB ADVISORY MULTIBRANDS C.TO NORDEA SUSTAINABLE GLOBAL STARS

ISIN	Asset Management Group	Name of the Fund
LU1278174724	GRUPPO DEUTSCHE BANK	DWS FIXED MATURITY C.TO DEAWM FIXED MATURITY FLEXINVEST ESG 2021
LU0099730524	GRUPPO DEUTSCHE BANK	DWS INSTITUTIONAL C.TO ESG EUR MONEY MARKET FUND
LU1769941771	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO CROCI WORLD SDG
LU2162004621	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO DWS INVEST ESG NEXT GEN INFR
LU2066748570	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO ESG CLIMATE TECH
LU2066748737	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO ESG EQUITY INCOME
LU1815111171	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO ESG EURO BONDS (SHORT)
LU1863262298	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO ESG EUROPEAN SMALL/MID CAP
LU1747711890	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO ESG GLOB CORP BONDS
LU2098862191	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO ESG MULTI ASSET DEFENSIVE
LU0254491003	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO EURO BONDS (PREMIUM)
LU1959289759	GRUPPO DEUTSCHE BANK	DWS ESG EURO BONDS (MEDIUM)
LU0484968812	GRUPPO DEUTSCHE BANK	XTRACKERS II C.TO XTRACKERS ESG EUR CORPORATE BOND UCITS ETF
LU2018618533	GRUPPO ERSEL	GLOBERSEL C.TO ANAVON ABSOLUTE ALPHA
LU1753032512	GRUPPO ERSEL	GLOBERSEL C.TO EMERGING BOND -INSIGHT INVESTMENT
LU2018618707	GRUPPO ERSEL	GLOBERSEL C.TO EQUITY VALUE METROPOLIS
LU1598708714	GRUPPO ERSEL	GLOBERSEL C.TO EUROPEAN EQUITY - INVESTEC AM
LU0752853290	GRUPPO ERSEL	GLOBERSEL C.TO GLOBAL EQUITY - WALTER SCOTT & PARTNERS
LU1489756715	GRUPPO GENERALI	GI C.TO EUROPEAN SRI EQUITY
LU2135728652	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO ABSOLUTE GREEN BONDS
LU1652387454	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO BOND CORPORATE SMART ESG
LU1961029904	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO BOND EMERGING MARKETS IN LOCAL CURRENCIES ESG
LU2193861684	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO EQUITY EUROPE ESG LTE

	NISI	Asset Management Group	Name of the Fund
	LU2050470421	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO EQUITY INNOVATION
	LU2050470777	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO EQUITY PEOPLE
	LU2050470934	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO EQUITY PLANET
	LU2193861502	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO EQUITY USA ESG LTE
	LU2135729205	GRUPPO INTESA SANPAOLO	EURIZON FUND C.TO SUSTAINABLE GLOBAL EQUITY
	LU2178929373	GRUPPO INTESA SANPAOLO	EURIZON NEXT C.TO ALLOCAZIONE DIVERSIFICATA 20
	LU2178929704	GRUPPO INTESA SANPAOLO	EURIZON NEXT C.TO ALLOCAZIONE DIVERSIFICATA 40
	LU2178930116	GRUPPO INTESA SANPAOLO	EURIZON NEXT C.TO ALLOCAZIONE DIVERSIFICATA 70
	LU2178927831	GRUPPO INTESA SANPAOLO	EURIZON NEXT C.TO STRATEGIA AZIONARIA ESG
	IT0005373342	GRUPPO INTESA SANPAOLO	EURIZON APPROCCIO CONTRARIAN ESG
	IT0001083424	GRUPPO INTESA SANPAOLO	EURIZON AZIONARIO INTERNAZIONALE ETICO
17	IT0005348013	GRUPPO INTESA SANPAOLO	EURIZON DISCIPLINA SOSTENIBILE ESG DICEMBRE 2023
	IT0005329930	GRUPPO INTESA SANPAOLO	EURIZON DISCIPLINA SOSTENIBILE ESG LUGLIO 2023
	IT0005320947	GRUPPO INTESA SANPAOLO	EURIZON DISCIPLINA SOSTENIBILE ESG MAGGIO 2023
	IT0005312464	GRUPPO INTESA SANPAOLO	EURIZON DISCIPLINA SOSTENIBILE ESG MARZO 2023
	IT0005339897	GRUPPO INTESA SANPAOLO	EURIZON DISCIPLINA SOSTENIBILE ESG OTTOBRE 2023
	IT0001052742	GRUPPO INTESA SANPAOLO	EURIZON DIVERSIFICATO ETICO
	IT0005250805	GRUPPO INTESA SANPAOLO	EURIZON ESG TARGET 40 - GIUGNO 2022
	IT0005273476	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO SETTEMBRE 2024
	IT0005212037	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO DICEMBRE 2023
	IT0005278806	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO DICEMBRE 2024
	IT0005341687	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO DICEMBRE 2025
	IT0005382293	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO DICEMBRE 2026

ISIN	Asset Management Group	Name of the Fund
IT0005369779	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO GIUGNO 2026
IT0005407439	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO GIUGNO 2027
IT0005250540	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO LUGLIO 2024
IT0005330177	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO LUGLIO 2025
IT0005237943	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MAGGIO 2024
IT0005320905	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MAGGIO 2025
IT0005363707	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MAGGIO 2026
IT0005397416	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MAGGIO 2027
IT0005220535	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MARZO 2024
IT0005312654	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MARZO 2025
IT0005352387	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MARZO 2026
 IT0005390577	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO MARZO 2027
IT0005336430	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO SETTEMBRE 2025
IT0005376550	GRUPPO INTESA SANPAOLO	EURIZON FLESSIBILE AZIONARIO SETTEMBRE 2026
IT0005407579	GRUPPO INTESA SANPAOLO	EURIZON GLOBAL DIVIDEND ESG 50 - LUGLIO 2025
IT0005404949	GRUPPO INTESA SANPAOLO	EURIZON GLOBAL DIVIDEND ESG 50 - MAGGIO 2025
IT0005416380	GRUPPO INTESA SANPAOLO	EURIZON GLOBAL DIVIDEND ESG 50 - OTTOBRE 2025
IT0001083382	GRUPPO INTESA SANPAOLO	EURIZON OBBLIGAZIONARIO ETICO
IT0005412108	GRUPPO INTESA SANPAOLO	EURIZON SOLUZIONE ESG 10
IT0005412140	GRUPPO INTESA SANPAOLO	EURIZON SOLUZIONE ESG 40
IT0005412124	GRUPPO INTESA SANPAOLO	EURIZON SOLUZIONE ESG 60
LU1811052247	GRUPPO INTESA SANPAOLO	FONDITALIA C.TO FONDITALIA MILLENNIALS EQUITY
LU0814413083	GRUPPO INTESA SANPAOLO	FONDITALIA ETHICAL INVESTMENT

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	Asset Management Group	Name of the Fund
IT0003851034	GRUPPO INTESA SANPAOLO	PRAMERICA AZIONARIO ETICO
IT0005278970	GRUPPO INTESA SANPAOLO	PRAMERICA BILANCIATO ETICO
IT0005075590	GRUPPO INTESA SANPAOLO	PRAMERICA OBBLIGAZIONARIO EURO CORPORATE ETICO
LU2104939645	GRUPPO INTESA SANPAOLO	PRAMERICA SICAV C.TO ABSOLUTE RETURN MODERATE ESG
LU1973565028	GRUPPO INTESA SANPAOLO	PRAMERICA SICAV C.TO CLEAN WATER
LU1973565705	GRUPPO INTESA SANPAOLO	PRAMERICA SICAV C.TO LOW CARBON EURO
LU1785081131	GRUPPO INTESA SANPAOLO	PRAMERICA SICAV C.TO SOCIAL 4 FUTURE
LU1973562868	GRUPPO INTESA SANPAOLO	PRAMERICA SICAV C.TO SOCIAL 4 PLANET
LU2161831420	GRUPPO INTESA SANPAOLO	PRAMERICA SICAV C.TO SOCIAL 4 CHILDREN ESG
IT0005419186	GRUPPO MEDIOBANCA	MEDIOBANCA ESG EUROPEAN EQUITY
IT0005419244	GRUPPO MEDIOBANCA	MEDIOBANCA ESG US EQUITY
IE00BG0D0K02	GRUPPO MEDIOLANUM	MEDIOLANUM BEST BRANDS C.TO MEDIOLANUM INNOVATIVE THEMATIC OPPORTUNITIES
IE00BCZNHN94	GRUPPO MEDIOLANUM	MEDIOLANUM BEST BRANDS C.TO SOCIALLY RESPONSIBLE COLLECTION
LU1689526199	HSBC GLOBAL ASSET MANAGEMENT	HSBC GIF SICAV C.TO GLOBAL LOWER CARBON BOND
LU1689526512	HSBC GLOBAL ASSET MANAGEMENT	HSBC GIF SICAV C.TO GLOBAL LOWER CARBON BOND (EURO HEDGED)
LU1689525209	HSBC GLOBAL ASSET MANAGEMENT	HSBC GIF SICAV C.TO GLOBAL LOWER CARBON EQUITY
IT0001484754	ICCREA	INVESTIPER ETICO BILANCIATO
LU1701704584	INVESCO	INVESCO FUNDS C.TO INVESCO SUSTAINABLE ALLOCATION FUND
LU1529808336	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO EUROPE SUSTAINABLE EQUITY FUND
LU0210534813	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO GLOB.SOC.RESPONS.
LU1892703486	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO GLOBAL SUSTAINABLE EQUITY FUND
LU2092755979	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO JPM EMERGING MARKETS SUSTAINABLE EQUITY
LU2092756274	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO JPM EUROPE SUSTAINABLE SMALL CAP EQUITY

NISI	Asset Management Group	Name of the Fund
LU2092756431	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO JPM GLOBAL BOND OPPORTUNITIES SUSTAINABLE
LU2065735628	JPMORGAN ASSET MANAGEMENT	JPM FUNDS C.TO JPM MULTI-MANAGER SUSTAINABLE LONG-SHORT
LU2003419707	JPMORGAN ASSET MANAGEMENT	JPM INVEST.FUND C.TO JPM GLOBAL MACRO SUSTAINABLE
LU2058903605	KAIROS PARTNERS	KAIROS INTERNATIONAL SICAV C.TO ACTIVESG
LU2179103077	KAIROS PARTNERS	KAIROS INTERNATIONAL SICAV C.TO CLIMATE CHANGE ESG
LU0828890789	KAIROS PARTNERS	KAIROS INTERNATIONAL SICAV C.TO EUROPA ESG
LU2023678878	LYXOR	LIF C.TO LYXOR MSCI DIGITAL ECONOMY ESG FIL. (DR) UCITS ETF
LU2023678282	LYXOR	LIF C.TO LYXOR MSCI DISRUPTIVE TEC. ESG FIL. (DR) UCITS ETF
LU2023679090	LYXOR	LIF C.TO LYXOR MSCI FUTURE MOBILITY ESG FIL. (DR) UCITS ETF
LU2023678449	LYXOR	LIF C.TO LYXOR MSCI MILLENNIALS ESG FILTERED (DR) UCITS ETF
LU2023679256	LYXOR	LIF C.TO LYXOR MSCI SMART CITIES ESG FIL. (DR) UCITS ETF
LU2216829809	LYXOR	LIF C.TO LYXOR MSCI WORLD CATHOLIC PRIN. ESG (DR) UCITS ETF
LU2008814514	M&G INVESTMENTS	M&G (LUX) INVESTMENT FUNDS 1 C.TO M&G (LUX) EMERGING MARKETS CORPORATE ESG BOND FUND
LU1665236482	M&G INVESTMENTS	M&G (LUX) INVESTMENT FUNDS 1 C.TO M&G (LUX) GLOBAL HIGH YIELD ESG BOND FUND
LU1665238009	M&G INVESTMENTS	M&G (LUX) INVESTMENT FUNDS 1 C.TO M&G (LUX) GLOBAL LISTED INFRASTRUCTURE FUND
LU1854107650	M&G INVESTMENTS	M&G (LUX) INVESTMENT FUNDS 1 C.TO M&G (LUX) POSITIVE IMPACT FUND
LU1900802262	M&G INVESTMENTS	M&G (LUX) INVESTMENT FUNDS 1 C.TO M&G (LUX) SUSTAINABLE ALLOCATION FUND
LU1966773217	MORGAN STANLEY	MORGAN STANLEY INVESTMENT FUNDS C.TO GLOBAL SUSTAIN FUND
LU0843168732	PICTET	PICTET C.TO BIOTECH
LU1777194124	PICTET	PICTET C.TO CLEAN ENERGY
LU1901200318	PICTET	PICTET C.TO GLOBAL ENVIRONMENTAL OPPORTUNITIES
LU2053548165	PICTET	PICTET C.TO GLOBAL SUSTAINABLE CREDIT
LU1225778213	PICTET	PICTET C.TO HEALTH

NISI	Asset Management Group	Name of the Fund
LU1322371821	PICTET	PICTET C.TO NUTRITION
LU0258985596	PICTET	PICTET C.TO QUEST EUROPE SUSTAINABLE EQUITIES
LU1777194470	PICTET	PICTET C.TO SMARTCITY
LU1688405353	PICTET	PICTET C.TO TIMBER
LU0385405997	PICTET	PICTET C.TO WATER
IT0005389470	POSTE ITALIANE	POSTE INVESTO SOSTENIBILE
LU0858243842	SCHRODERS	SCHRODER ISF C.TO BRIC (BRAZ RU IN CH)
LU1023730655	SCHRODERS	SCHRODER ISF C.TO E.M.
LU0994294378	SCHRODERS	SCHRODER ISF C.TO EMERGING EUROPE
LU0491680715	SCHRODERS	SCHRODER ISF C.TO EMERGING MARKETS AUD HEDGED
LU1725189820	SCHRODERS	SCHRODER ISF C.TO EMERGING MARKETS EUR HEDGED
LU0150928074	SCHRODERS	SCHRODER ISF C.TO EURO EQ.
LU1346641340	SCHRODERS	SCHRODER ISF C.TO EURO EQUITY CHF HEDGED
LU1015429985	SCHRODERS	SCHRODER ISF C.TO EURO EQUITY GBP HEDGED
LU0903427978	SCHRODERS	SCHRODER ISF C.TO EURO EQUITY PLN HEDGED
LU1069923040	SCHRODERS	SCHRODER ISF C.TO EURO EQUITY RMB HEDGED
LU0999521130	SCHRODERS	SCHRODER ISF C.TO EURO EQUITY USD HEDGED
LU0321374661	SCHRODERS	SCHRODER ISF C.TO EUROPEAN DIVIDEND MAXIMISER
LU1262171884	SCHRODERS	SCHRODER ISF C.TO EUROPEAN DIVIDEND MAXIMISER SGD HEDGED
LU1046234339	SCHRODERS	SCHRODER ISF C.TO EUROPEAN DIVIDEND MAXIMISER USD HEDGED
LU0315084102	SCHRODERS	SCHRODER ISF C.TO EUROPEAN EQ. YIELD
LU1056829481	SCHRODERS	SCHRODER ISF C.TO EUROPEAN EQUITY YIELD RMB HEDGED
LU0981932865	SCHRODERS	SCHRODER ISF C.TO EUROPEAN EQUITY YIELD SGD HEDGED

ISIN	Asset Management Group	Name of the Fund
LU1031140988	SCHRODERS	SCHRODER ISF C.TO EUROPEAN EQUITY YIELD USD HEDGED
LU1046231236	SCHRODERS	SCHRODER ISF C.TO EUROPEAN LARGE CAP
LU1775313916	SCHRODERS	SCHRODER ISF C.TO EUROPEAN SPECIAL SITUATION
LU2022034933	SCHRODERS	SCHRODER ISF C.TO EUROPEAN SUSTAINABLE EQUITY
LU1046231152	SCHRODERS	SCHRODER ISF C.TO EUROPEAN VALUE
LU1046231319	SCHRODERS	SCHRODER ISF C.TO FRONTIER MARKETS EQUITY
LU0903428604	SCHRODERS	SCHRODER ISF C.TO FRONTIER MARKETS EQUITY PLN HEDGED
LU0740769046	SCHRODERS	SCHRODER ISF C.TO GLOBAL BLEND
LU0683716608	SCHRODERS	SCHRODER ISF C.TO GLOBAL CITIES REAL ESTATE
LU0378800949	SCHRODERS	SCHRODER ISF C.TO GLOBAL CLIMATE CHANGE EQ.
LU0306805531	SCHRODERS	SCHRODER ISF C.TO GLOBAL CLIMATE CHANGE EQ. EUR HDG
LU0339281494	SCHRODERS	SCHRODER ISF C.TO GLOBAL DIVIDEND MAXIMISER
LU1046234412	SCHRODERS	SCHRODER ISF C.TO GLOBAL DIVIDEND MAXIMISER AUD HEDGED
LU1725192451	SCHRODERS	SCHRODER ISF C.TO GLOBAL DIVIDEND MAXIMISER EUR HEDGED
LU1056829648	SCHRODERS	SCHRODER ISF C.TO GLOBAL DIVIDEND MAXIMISER PLN HEDGED
LU1103348774	SCHRODERS	SCHRODER ISF C.TO GLOBAL DIVIDEND MAXIMISER RMB HEDGED
LU0828238088	SCHRODERS	SCHRODER ISF C.TO GLOBAL EM OPPORTUNITIES
LU1280497972	SCHRODERS	SCHRODER ISF C.TO GLOBAL EMERGING MARKET OPPORTUNITIES PLN HEDGED
LU1469676396	SCHRODERS	SCHRODER ISF C.TO GLOBAL EMERGING MARKETS SMALLER COMPANIES
LU0219517496	SCHRODERS	SCHRODER ISF C.TO GLOBAL EQ.
LU0248168428	SCHRODERS	SCHRODER ISF C.TO GLOBAL EQ. ALPHA
LU0985481810	SCHRODERS	SCHRODER ISF C.TO GLOBAL EQ. YIELD
LU0491681010	SCHRODERS	SCHRODER ISF C.TO GLOBAL EQUITY AUD HEDGED

ISIN	Asset Management Group	Name of the Fund
LU1280498277	SCHRODERS	SCHRODER ISF C.TO GLOBAL EQUITY PLN HEDGED
LU1108799971	SCHRODERS	SCHRODER ISF C.TO GLOBAL RECOVERY
LU0956908742	SCHRODERS	SCHRODER ISF C.TO GLOBAL RECOVERY GBP HEDGED
LU2022035237	SCHRODERS	SCHRODER ISF C.TO GLOBAL SUSTAINABLE CONVERTIBLE BOND
LU2032053097	SCHRODERS	SCHRODER ISF C.TO GLOBAL SUSTAINABLE GROWTH
LU2032053337	SCHRODERS	SCHRODER ISF C.TO GLOBAL SUSTAINABLE GROWTH EUR HEDGED
LU0256859116	SCHRODERS	SCHRODER ISF C.TO LATIN AMERICAN
LU1046231749	SCHRODERS	SCHRODER ISF C.TO MIDDLE EAST
LU0374902707	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL ACTIVE VALUE
LU0106255481	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL CORE
LU0757974943	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL EMERGING MARKETS
LU1496799286	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL EQUITY MARKET NEUTRAL
LU1564900592	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL EQUITY MARKET NEUTRAL CHF HEDGED
LU1528092478	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL EQUITY MARKET NEUTRAL EUR HEDGED
LU1201920276	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL EQUITY MARKET NEUTRAL GBP HEDGED
LU1775314054	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL ESG
LU1528092809	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL ESG EUR HEDGED
LU1910163945	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL ESG EX FOSSIL FUELS
LU0994294964	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL QUALITY
LU1019482188	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL VALUE PLUS
LU2180923737	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF EMERGING MARKETS VALUE
LU2191242879	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF GLOBAL ENERGY TRANSITION
LU2016064623	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF GLOBAL ENERGY TRANSITION CHF HEDGED

NISIN	Asset Management Group	Name of the Fund
LU2075271812	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF GLOBAL ENERGY TRANSITION EUR HEDGED
LU0305901398	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF QEP GLOBAL ACTIVE VALUE EUR HEDGED
LU2097344431	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF SUST. MULTI-ASSET INCOME USD HEDGED
LU2191243414	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF SUSTAINABLE EURO CREDIT
LU2097342492	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF SUSTAINABLE MULTI-ASSET
LU2097343979	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF SUSTAINABLE MULTI-ASSET INCOME
LU0227178042	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF SUSTAINABLE SWISS EQUITY
LU0133713858	SCHRODERS	SCHRODER ISF C.TO SWISS EQ.
LU1015430058	SCHRODERS	SCHRODER ISF C.TO SWISS EQUITY EUR HEDGED
LU1015430306	SCHRODERS	SCHRODER ISF C.TO SWISS EQUITY GBP HEDGED
LU1015430215	SCHRODERS	SCHRODER ISF C.TO SWISS EQUITY USD HEDGED
LU0149538414	SCHRODERS	SCHRODER ISF C.TO SWISS SM.&MID CAP
IT0005219859	SELLA	INVESTIMENTI SOSTENIBILI
LU1110725071	STATE STREET GLOBAL ADVISORS	STATE STREET GLOBAL ADVISORS LUXEMBOURG C.TO STATE STREET MULTI-FACTOR GLOBAL ESG EQUITY FUND
LU1159235362	STATE STREET GLOBAL ADVISORS	STATE STREET GLOBAL ADVISORS LUXEMBOURG C.TO STATE STREET WORLD SRI INDEX EQUITY FUND
LU0417377784	UBS ASSET MANAGEMENT	UBS (LUX) SICAV 2 C.TO EUR CORPORATE BOND SUSTAINABLE (EUR)

Note. Data were sourced from Assogestioni's website. They are available at https://associati.assogestioni.it/datiericerche/elenchi/fondi/Pagine/default.aspx and are updated monthly. Data used for the analysis are updated as at October 31, 2020. The column "Asset Management Group" makes reference to the report released each three months by Assogestioni, called "Mappa trimestrale del risparmio gestito". In that report each asset management company is associated to an asset management group.

Note. Total number of funds included in the table above: 382.

Appendix B

Table 18. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, which are belonging to share classes traceable to the same fund or sub-fund.

ISIN	Asset Management Group	Fund Name
LU1689526512	HSBC GLOBAL ASSET	LISDO CIE SICAVIO TO CLODAL LOWER CARRON ROND
LU1689526199	MANAGEMENT	HSBC GIF SICAV C.TO GLOBAL LOWER CARBON BOND
LU0491680715		
LU1725189820	SCHRODERS	SCHRODER ISF C.TO EMERGING MARKETS
LU1023730655		
LU0150928074		
LU1346641340		
LU1015429985	CCUDODEDC	CCURODER ICE C TO FURD FOURTY
LU0903427978	SCHRODERS	SCHRODER ISF C.TO EURO EQUITY
LU1069923040		
LU0999521130		
LU0321374661		
LU1262171884	SCHRODERS	SCHRODER ISF C.TO EUROPEAN DIVIDEND MAXIMISER
LU1046234339		
LU0315084102		
LU1056829481	CCUDODEDC	CCURODER ISE C TO FUROREAN FOURTY VIELD
LU0981932865	SCHRODERS	SCHRODER ISF C.TO EUROPEAN EQUITY YIELD
LU1031140988		
LU0903428604	SCHRODERS	SCHRODER ISF C.TO FRONTIER MARKETS EQUITY
LU1046231319	SCHRODERS	SCHRODER ISI C.10 FRONTER WARRETS EQUIT
LU0378800949	SCHRODERS	SCHRODER ISF C.TO GLOBAL CLIMATE CHANGE EQUITY
LU0306805531	SCHRODENS	SCHRODER ISF C.10 GLOBAL CLIMATE CHANGE EQUIT
LU0339281494		
LU1046234412		
LU1725192451	SCHRODERS	SCHRODER ISF C.TO GLOBAL DIVIDEND MAXIMISER
LU1056829648		
LU1103348774		
LU0828238088	SCHRODERS	SCHRODER ISF C.TO GLOBAL EMERGING MARKET
LU1280497972	JCHRODEN3	OPPORTUNITIES
LU0219517496		
LU0491681010	SCHRODERS	SCHRODER ISF C.TO GLOBAL EQUITY
LU1280498277		

ISIN	Asset Management Group	Fund Name
LU1108799971	SCHRODERS	SCHRODER ISF C.TO GLOBAL RECOVERY
LU0956908742	SCHRODERS	SCHRODER ISF C.10 GLOBAL RECOVERY
LU2032053097	SCHRODERS	SCHRODER ISF C.TO GLOBAL SUSTAINABLE GROWTH
LU2032053337	SCHRODERS	SCHRODER ISF C. TO GLOBAL SUSTAINABLE GROWTH
LU1496799286		
LU1564900592	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL EQUITY MARKET
LU1528092478	SCHRODERS	NEUTRAL
LU1201920276		
LU1528092809	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL ESG
LU1775314054	SCHRODERS	SCHRODER ISF C.10 QEF GLOBAL ESG
LU2191242879		
LU2016064623	SCHRODERS	SCHRODER ISF C.TO SCHRODER ISF GLOBAL ENERGY TRANSITION
LU2075271812		
LU0374902707	SCHRODERS	SCURODER ISE O TO OFR CLORAL ACTIVE VALUE
LU0305901398	SCHRODERS	SCHRODER ISF C.TO QEP GLOBAL ACTIVE VALUE
LU2097343979	SCHRODERS	SCHRODER ISF C.TO SUSTAINABLE MULTI-ASSET INCOME
LU2097344431	SCHRODERS	SCHRODER ISF C.10 SUSTAINABLE WILLTI-ASSET INCOME
LU0133713858		
LU1015430058	SCHRODERS	SCHRODER ISF C.TO SWISS EQUITY
LU1015430306	SCHRODERS	SCHNODEN ISF C.10 SWISS EQUITY
LU1015430215		

Note. Total number of ISINs included in the table above: 53. Total number of funds with duplicates: 18.

Table 19. Fund that was included in the Assogestioni's database of mutual funds in Appendix A even if closed.

ISIN	Asset Management Group	Fund Name
LU0254491003	GRUPPO DEUTSCHE BANK	DWS INVEST SICAV C.TO EURO BONDS (PREMIUM)

Appendix C

Table 20. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, but not present in Morningstar, with specific reference of where their AuM was sourced from (if any result was found).

ISIN	Asset Management Group	Source of AuM
LU2151177313	AMUNDI GROUP	amundi.it
LU2109786660	AMUNDI GROUP	amundietf.it
LU2122995454	AMUNDI GROUP	morningstar.it
LU2180173630	AMUNDI GROUP	morningstar.it
LU2180173473	AMUNDI GROUP	morningstar.it
IT0005402018	ANIMA HOLDING	animasgr.it
FR0013496221	GRUPPO BNP PARIBAS	bnpparibas-am.it
FR0013403409	GRUPPO BNP PARIBAS	bnpparibas-am.it
LU2178929373	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2178929704	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2178930116	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2178927831	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2179103077	KAIROS PARTNERS	kairospartners.com
LU1650523076	AMUNDI GROUP	No results
IE0030820504	BNY MELLON INVESTMENT MANAGEMENT	No results
LU2109441258	CANDRIAM	No results
IT0005419186	GRUPPO MEDIOBANCA	No results
IT0005419244	GRUPPO MEDIOBANCA	No results
LU2180923737	SCHRODERS	No results

Note. Total number of ISINs included in the table above: 19.

Table 21. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, for which it was not possible to retrieve any information about their ethical investing strategies.

ISIN	Asset Management Group
LU1650523076	AMUNDI GROUP
IE0030820504	BNY MELLON INVESTMENT MANAGEMENT

Appendix D

Table 22. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, which had no Morningstar sustainability rating even though included in Morningstar.

FR0013106713	IT0005331902	BE0945478197	IT0005312464	IT0005376550
FR0013016615	IT0005336703	IT0005402976	IT0005339897	IT0005407579
LU2182388582	IT0005381907	IT0005391609	IT0001052742	IT0005404949
LU2182388236	IT0005396905	IT0004782352	IT0005250805	IT0005416380
LU2109787635	IT0005406845	IT0005336893	IT0005273476	IT0001083382
LU2109787551	LU2122995298	IT0005117558	IT0005212037	IT0005412108
LU2109787049	LU2090778502	LU2066067385	IT0005278806	IT0005412140
LU2109786827	FR0010423228	LU0828231075	IT0005341687	IT0005412124
LU2109787478	IT0001033528	LU1956160789	IT0005382293	LU0814413083
LU2109786744	IT0005392011	LU1555163135	IT0005369779	LU2104939645
LU2109787395	IT0005399636	LU1555162913	IT0005407439	LU2161831420
LU2182388400	IT0005412652	LU1278174724	IT0005250540	LU2092756431
LU2109787122	IT0005418683	LU0099730524	IT0005330177	LU2065735628
LU2109786587	IE00BFZMGR40	LU1815111171	IT0005237943	LU2003419707
IT0005114993	IE00BK0VJM79	LU1959289759	IT0005320905	LU1665236482
IT0005118606	LU2059770235	LU1753032512	IT0005363707	LU1900802262
IT0005189094	LU1313770023	LU2135728652	IT0005397416	IT0005389470
IT0005125106	LU2211182436	LU1961029904	IT0005220535	LU2097342492
IT0005125064	LU1644441476	IT0005373342	IT0005312654	
IT0005125049	LU1644442367	IT0005348013	IT0005352387	
IT0005125080	BE0943336116	IT0005329930	IT0005390577	
IT0005323701	BE0159412411	IT0005320947	IT0005336430	

Note. Total number of ISINs included in the table above: 106.

Table 23. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, which had a Morningstar sustainability rating but no Morningstar portfolio's carbon risk score and no portfolio's fossil fuel exposure measure.

FR0010188136	LU1998920455	LU2007205631	LU2125047774	LU1434522634
FR0010749853	LU1737653987	LU1655258330	LU2125047345	LU1434529050
FR0013340932	LU2037748774	LU1720525762	IT0005411761	BE0945493345
LU2018721972	LU1806495575	LU1774630195	IT0005411803	BE0159411405
LU1050469441	LU2182388319	LU1826339092	IT0005398984	IT0005385288
LU1926208726	LU1437025296	IT0004814213	IT0005396616	LU2031940054
LU2036673882	LU1965337295	LU2090778254	LU1313770882	IT0005391575

IT0005368037	LU1819949246	LU2018618533	LU2023679090	LU1496799286
IT0005390254	LU0265317569	LU2018618707	LU2023678449	LU1019482188
LU1492371270	LU1956155789	LU1652387454	LU2023679256	LU2191242879
LU1558189210	LU1956156910	LU2193861684	LU2216829809	LU2191243414
IT0005341943	LU1353196436	LU2193861502	LU2008814514	LU2097343979
LU2028911365	LU1685644657	IT0005278970	LU0843168732	LU0149538414
LU2056384402	LU1555072336	IT0005075590	LU2053548165	IT0005219859
FR0013229937	LU1122764910	LU1785081131	LU1046231319	LU0417377784
LU0823415285	LU2162004621	LU1689526199	LU1469676396	
LU1664648976	LU1747711890	LU2058903605	LU2022035237	
LU1620157534	LU2098862191	LU2023678878	LU1046231749	
LU1956138777	LU0484968812	LU2023678282	LU0757974943	

Note. Total number of ISINs included in the table above: 91.

Appendix E

Table 24. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, for which the portfolio was not sourced from Morningstar, with specific reference of where their portfolio was sourced from.

ISIN	Asset Management Group	Source of portfolio
FR0010773242	AMUNDI GROUP	amundi.com
LU2151177313	AMUNDI GROUP	amundi.com
LU1926208726	AMUNDI GROUP	amundi.com
LU2182388236	AMUNDI GROUP	amundietf.it
LU2109787635	AMUNDI GROUP	amundietf.it
LU2109787551	AMUNDI GROUP	amundietf.it
LU2109787049	AMUNDI GROUP	amundietf.it
LU2109786827	AMUNDI GROUP	amundietf.it
LU2109787478	AMUNDI GROUP	amundietf.it
LU2153616599	AMUNDI GROUP	amundietf.it
LU2109787395	AMUNDI GROUP	amundietf.it
LU2109786660	AMUNDI GROUP	amundietf.it
LU2182388400	AMUNDI GROUP	amundietf.it
LU2109787122	AMUNDI GROUP	amundietf.it
LU2109786587	AMUNDI GROUP	amundietf.it
LU1437025296	AMUNDI GROUP	amundietf.it
IT0005114993	AMUNDI GROUP	amundi.it
IT0005118606	AMUNDI GROUP	amundi.it
IT0005189094	AMUNDI GROUP	amundi.it
IT0005125106	AMUNDI GROUP	amundi.it
IT0005125064	AMUNDI GROUP	amundi.it
IT0005125049	AMUNDI GROUP	amundi.it
IT0005125080	AMUNDI GROUP	amundi.it
IT0005323701	AMUNDI GROUP	amundi.it
IT0005331902	AMUNDI GROUP	amundi.it
IT0005336703	AMUNDI GROUP	amundi.it
IT0005381907	AMUNDI GROUP	amundi.it
IT0005396905	AMUNDI GROUP	amundi.it
IT0005406845	AMUNDI GROUP	amundi.it
LU2122995454	AMUNDI GROUP	amundi.it
LU2180173630	AMUNDI GROUP	amundi.it
LU2122995298	AMUNDI GROUP	amundi.it
LU2180173473	AMUNDI GROUP	amundi.it

ISIN	Asset Management Group	Source of portfolio
IT0005402018	ANIMA HOLDING	animasgr.it
LU2109441258	CANDRIAM	candriam.it
FR0013496221	GRUPPO BNP PARIBAS	bnpparibas-am.it
FR0013403409	GRUPPO BNP PARIBAS	bnpparibas-am.it
LU2066067385	GRUPPO BNP PARIBAS	bnpparibas-am.it
LU1353196436	GRUPPO BNP PARIBAS	bnpparibas-am.it
LU1685644657	GRUPPO BNP PARIBAS	bnpparibas-am.it
LU0254491003	GRUPPO DEUTSCHE BANK	funds.dws.com
LU2178929373	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2178929704	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2178930116	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2178927831	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005373342	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005348013	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005329930	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005320947	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005312464	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005339897	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005250805	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005273476	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005212037	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005278806	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005341687	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005382293	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005369779	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005407439	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005250540	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005330177	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005237943	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005320905	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005363707	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005397416	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005220535	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005312654	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005352387	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005390577	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005336430	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005376550	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005407579	GRUPPO INTESA SANPAOLO	eurizoncapital.com

ISIN	Asset Management Group	Source of portfolio
IT0005404949	GRUPPO INTESA SANPAOLO	eurizoncapital.com
IT0005416380	GRUPPO INTESA SANPAOLO	eurizoncapital.com
LU2179103077	KAIROS PARTNERS	kairospartners.com
IT0005389470	POSTE ITALIANE	bancopostafondi.poste.it

Note. Total number of funds included in the table above: 76.

Table 25. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, for which it was not possible to find any disclosure of their top holdings.

LU1650523076	LU2122995298	FR0013496221	IT0005407439	IT0005419244
IT0005114993	LU2180173473	LU2178929373	IT0005407579	LU2179103077
IT0005406845	IT0005418683	LU2178929704	IT0005416380	LU2180923737
LU2122995454	IE0030820504	LU2178930116	LU2161831420	
LU2180173630	LU2109441258	LU2178927831	IT0005419186	

Note. Total number of ISINs included in the table above: 23.

Table 26. List of ISINs included in the Assogestioni's database of mutual funds in Appendix A, which disclosed only their top 10 holdings.

FR0010773242	IT0005125064	IT0005402018	IT0005320947	IT0005352387
LU2151177313	IT0005125049	LU2031940054	IT0005312464	IT0005390577
LU2018721972	IT0005125080	LU0272267526	IT0005339897	IT0005336430
LU1926208726	IT0005323701	LU2056384402	IT0005250805	IT0005376550
LU2109787635	IT0005331902	LU2075862008	IT0005273476	IT0005404949
LU2109787551	IT0005336703	LU2066067385	IT0005212037	LU2008814514
LU2109786827	IT0005381907	LU1353196436	IT0005278806	LU1665236482
LU2109787478	IT0005396905	LU1685644657	IT0005341687	LU1665238009
LU2109786744	LU2090778338	LU1555072336	IT0005382293	LU1854107650
LU2109787395	LU2090778254	LU1555163135	IT0005369779	LU1900802262
LU2109786660	LU2090778171	LU2051778764	IT0005250540	LU0843168732
LU2109787122	LU2090778411	LU1555162913	IT0005330177	LU1777194124
LU2109786587	LU2125047774	LU1753032512	IT0005237943	LU1225778213
LU1437025296	LU2090778502	LU1598708714	IT0005320905	LU1688405353
IT0005114993	LU2125047345	LU0752853290	IT0005363707	LU0385405997
IT0005118606	IT0005411761	IT0005373342	IT0005397416	IT0005389470
IT0005189094	IT0005411803	IT0005348013	IT0005220535	LU0417377784
IT0005125106	IT0005398984	IT0005329930	IT0005312654	

Note. Total number of ISINs included in the table above: 89.

Appendix F

Table 27. List of the top fossil fuel expansion companies.

Abu Dhabi National Oil Company Lukoil

Aethon Energy Magellan Midstream Partners

Antero Resources Murphy Oil

Apache Corporation National Iranian Oil Company

Atlantic Coast Pipeline LLC Nextdecade
Banpu Noble Energy

Basra Oil Company North Oil Company

BP Novatek
Bumi Resources Occidental

Canadian Natural Resources (CNRL)

Oil And Natural Gas Corporation (ONGC)

Cheniere Energy Parsley Energy

Chesapeake Energy Pdvsa

Chevron Pembina Pipeline

China Energy Investment Corporation (CHN Pemex Energy) Petrobras
China National Offshore Oil Corporation (CNOOC) Petrochina

China National Petroleum Corporation (CNPC)

Petroliam Nasional Berhad (Petronas)

Cimarex Energy Phillips 66

Cloud Peak Energy Pioneer Natural Resources
Coal India Plains All American Pipeline

Comstock Resources Polska Grupa Energetyczna (PGE)
Concho Resources Qatar Petroleum

Conocophillips Range Resources
Continental Resources Repsol

Devon Energy Rosneft
Diamondback Energy Royal Dutch Shell

Enbridge Saudi Aramco

Encana Shaanxi Coal And Chemical Industry

Energy Transfer Shandong Energy Group

Eni Siberian Coal Energy Company (SUEK)

Enterprise Products Sinopec (China Petroleum & Chemical Corporation)

EOG Resources Sonangol EQM Midstream Partners Sonatrach

EQT Corporation Southwestern Energy

Equinor (Formerly Statoil) State Oil Company Of Azerbaijan Republic (SOCAR)

Exxaro Resources Tc Energy (Formerly Transcanada)

ExxonMobil Total

Gazprom Tourmaline Oil

Glencore Trans Adriatic Pipeline (TAP)

Hess Corporation Transportadora De Gas Del Sur (TGS)

Indigo Minerals Turkmengas

Inpex Woodside Petroleum

Kinder Morgan WPX Energy

Kuwait Petroleum Corporation

Note. Sourced from Kirsch et al. (2020).

Table 28. List of the top 30 companies by onshore and offshore Arctic oil and gas reserves under production plus expansion reserves.

Alltech Group Novatek

Arcticshelfneftegaz Oil And Natural Gas Corporation (ONGC)

Bashneft Oil India Bharat Petroleum Corp (BPCL) Oil Search OMV China National Offshore Oil Corporation (CNOOC) Petoro China National Petroleum Corporation (CNPC) Petrovietnam Conocophillips Repsol Eni Rosneft Equinor (formerly Statoil) Silk Road Fund ExxonMobil Total Vaar Energi

Gazprom Vaar Energi
Hilcorp Energy Wintershall Dea
Indian Oil Yargeo
Lukoil Zarubezhneft

Note. Sourced from Kirsch et al. (2020).

Table 29. List of the top 30 companies by offshore oil and gas reserves under production plus expansion reserves.

Abu Dhabi National Oil Company Noble Energy
BP Occidental

Chevron Oil And Natural Gas Corporation (ONGC)

China National Offshore Oil Corporation (CNOOC)

China National Petroleum Corporation (CNPC)

Conocophillips

Petrobras

Delek Group Petroliam Nasional Berhad (Petronas)

Eni Qatar Petroleum

Equinor (formerly Statoil) Rosneft

ExxonMobilRoyal Dutch ShellGazpromSaudi AramcoInpexSonangol

Mitsui State Oil Company Of Azerbaijan Republic (SOCAR)

Mubadala Development Company Total

National Iranian Oil Company Woodside Petroleum

Note. Sourced from Kirsch et al. (2020).

Table 30. List of the top 30 companies by tar sands reserves under production plus expansion reserves, and the five companies with existing or proposed pipelines to carry tar sands oil out of Alberta.

Athabasca Oil Corporation Imperial Oil

BP International Petroleum Corporation (IPC)
Canadian Natural Resources (CNRL) Japan Petroleum Exploration Company (JAPEX)

Cenovus Energy Kinder Morgan

Chevron Korea National Oil Corporation (KNOC)

China National Offshore Oil Corporation (CNOOC)

Meg Energy
Connacher Oil And Gas

Osum

Conocophillips Paramount Resources
Enbridge Pengrowth Energy
ExxonMobil Petrochina

Greenfire Oil And Gas Plains All American Pipeline

Grizzly Oil Sands PTT Exploration And Production (PTTEP)

Husky Energy Royal Dutch Shell

Sinopec (China Petroleum & Chemical

Corporation)

Southern Pacific Resource

Suncor Energy

Sunshine Oilsands

TC Energy (formerly Transcanada)

Teck Resources

Total

Trans Mountain Corporation

Value Creation

Note. Sourced from Kirsch et al. (2020).

Table 31. List of the top 30 companies by shale oil and gas reserves under production plus projected shale production between 2019 and 2050 from currently undrilled wells, and 10 key fracked oil and gas pipeline companies.

Aethon Energy EQM Midstream Partners

Antero Resources **EQT** Corporation **Apache Corporation** ExxonMobil Atlantic Coast Pipeline LLC Indigo Minerals Kinder Morgan

Cabot Oil And Gas Magellan Midstream Partners

Chesapeake Energy Marathon Oil Chevron **Noble Energy** Occidental Cimarex Energy **CNX Resources** Petrochina **Comstock Resources** Phillips 66

Concho Resources **Pioneer Natural Resources** Conocophillips Plains All American Pipeline

Continental Resources Range Resources **Royal Dutch Shell Devon Energy** Southwestern Energy Diamondback Energy Encana **Tourmaline Oil**

Energy Transfer Transportadora De Gas Del Sur (TGS)

Enterprise Products Williams Companies **EOG Resources WPX Energy**

Note. Sourced from Kirsch et al. (2020).

Table 32. List of the top 30 companies by annual coal production.

Adaro Energy Jizhong Energy Group Arch Coal Inc Murray Energy **Bumi Resources Peabody Energy**

China Energy Investment Corporation (CHN PGE SA (Polska Grupa Energetyczna SA)

Energy) **RWE**

China Huaneng Group Shaanxi Coal And Chemical Industry

China National Coal Group Shandong Energy Group **Cloud Peak Energy** Shanxi Coking Coal Group

Coal India Shanxi Jincheng Anthracite Mining Group **Datong Coal Mine Group** Shanxi Lu'an Mining Industry Group

Siberian Coal Energy Company (SUEK) Energetický A Prumyslový Holding (EPH) Glencore Singareni Collieries Company Limited (SCCL)

Henan Energy And Chemical Industry Group State Power Investment Corporation

Huainan Mining Industry Group Yangquan Coal Industry Group

Inner Mongolia Yitai Group Yankuang Group

Jinneng Group

Note. Sourced from Kirsch et al. (2020).

Table 33. List of the top 30 coal power companies by installed plus planned coal power capacity.

American Electric Power (AEP) Guangdong Energy Group

Beijing Energy Holding Hebei Construction & Investment Group
China Datang Korea Electric Power Corporation (KEPCO)

China Energy Investment Corporation (CHN NTPC

Energy)
Perusahaan Listrik Negara (PLN)
China Huadian
PGE SA (Polska Grupa Energetyczna SA)

China Huaneng Group Reliance Power

China National Coal Group RWE

China Resources Power Holdings Shaanxi Coal And Chemical Industry

CLP Holdings Southern Company

Datong Coal Mine Group State Development And Investment Corporation

Dtek BV Group (SDIC)

Duke Energy State Power Investment Corporation Elektrik Üretim A.S. Genel Müdürlüsü (EÜAS) Vietnam Electricity Corporation (EVN)

Enel Vistra Energy

Eskom Zhejiang Provincial Energy Group

Note. Sourced from Kirsch et al. (2020).

Table 34. List of the top 35 fossil banks.

RBC Agricultural Bank Of China Crédit Agricole Bank Of America Credit Suisse **RBS** Bank Of China Deutsche Bank Santander Bank Of Montreal **Goldman Sachs** Scotiabank **Barclays HSBC SMBC Group BBVA ICBC** Société Générale **BNP Paribas** ING Standard Chartered

BPCE/Natixis Intesa Sanpaolo TD
China Construction Bank JPMorgan Chase UBS
CIBC Mizuho Unicredit
Citi Morgan Stanley Wells Fargo

Commerzbank MUFG

Note. Sourced from Kirsch et al. (2020).

Table 35. List of the top 100 arms-producing and military services companies.

AECOM CAE
Aerojet Rocketdyne CEA
Airbus Group Cobham

Almaz-Antey Curtiss-Wright Corp.
Amphenol Corp. Dassault Aviation Groupe
Arconic DynCorp International

ASELSAN Elbit Systems
Austal Engility
Babcock International Group Fincantieri
BAE Systems Fluor Corp.
Ball Corp. Fujitsu

Bechtel Corp. General Atomicsg
Bharat Electronics General Dynamics Corp.
Boeing General Electric

Booz Allen Hamilton Hanwha Aerospace

BWX Technologies Harris Corp.
CACI International Hensoldt

High Precision Systems
PGZ
Hindustan Aeronautics
UnetiQ
Honeywell International
Huntington Ingalls Industries
Raytheon
IHI Corp.
Rheinmetall
Indian Ordnance Factories
Rockwell Collins
Israel Aerospace Industries
Rolls-Royce

Jacobs Engineering GroupRUAGKawasaki Heavy IndustriesRussian ElectronicsKBRRussian Helicopters

Korea Aerospace Industries Saab Krauss-Maffei Wegmann Safran

KRET Science Applications International Corp.

L3 Technologies

Leidos

Leonardo

LIG Nex1

Serco Group

Sierra Nevada Corp.

ST Engineering

Tactical Missiles Corp.

Lockheed Martin Corp.

Teledyne Technologies

ManTech International Corp.TextronMBDAThales

MeggittThe Aerospace Corp.Melrose IndustriesThyssenKruppMITTransDigm Group

Mitsubishi Electric Corp. Turkish Aerospace Industries

Mitsubishi Heavy Industries

Moog

United Aircraft Corp.

Naval Group

Navantia

United Engine Corp.

United Launch Alliance

NEC Corp.

United Shipbuilding Corp.

Nexterg

United Technologies Corp.

Northrop Grumman Corp. UralVagonZavod

Oshkosh Corp. Vectrus Perspectah ViaSat

Note. Sourced from SIPRI (2019b).

Table 36. List of countries that retain the death penalty for ordinary crimes.

Afghanistan	Dominica	Lesotho	Singapore
Antigua and Barbuda	Egypt	Libya	Somalia
Bahamas	Equatorial Guinea	Malaysia	South Sudan
Bahrain	Ethiopia	Nigeria	Sudan
Bangladesh	Gambia	Democratic People's	Syria
Barbados	Guyana	Republic of Korea	Taiwan
Belarus	India	Oman	Thailand
Belize	Indonesia	Pakistan	Trinidad and Tobago
Botswana	Iran	Palestine (State of)	Uganda
Chad	Iraq	Qatar	United Arab
China	Jamaica	Saint Kitts and Nevis	Emirates
Comoros	Japan	Saint Lucia	USA
Cuba	Jordan	Saint Vincent and	Vietnam
Democratic Republic of	Kuwait	the Grenadines	Yemen
the Congo	Lebanon	Saudi Arabia	Zimbabwe

Note. Sourced from Amnesty International (2020).

Table 37. List of companies that test on animals.

For Beloved One **New Dana Perfumes** 3M Algenist Givenchy Inc. Nu Skin International Anna Sui **GLAMGLOW** Organix GlaxoSmithKline Oriflame USA Atelier Cologne Balenciaga Guerlain Peter Thomas Roth Baver Henkel Pfizer Beiersdorf Hoyu Phyto

Benefit Cosmetics Institut Esthederm **POLA Cosmetics Bic Corporation** Procter & Gamble Issey Miyake Blue Buffalo J.F. Lazartigue Puig Boscia Jimmy Choo **Pure Heals**

BULGARI Johnson & Johnson Reckitt Benckiser Burberry Jurlique Pure Skin Care Revlon

Calvin Klein Cosmetics Kao USA Caudalie USA, Inc. Kenzo Parfums

Chloe Kose

Christina Aguilera **Lancaster Beauty** Salvatore Ferragamo Church & Dwight Laneige Sebastian International Clarins of Paris Lanvin Sephora Cosmetics Clarisonic Lauder Shiseido Cosmetics

Roberto Cavalli

S. C. Johnson & Son

Rossi & Rossa

Valentino

Clorox **Leaders Cosmetics** Shu Uemura Collistar L'Occitane Skincare Condense Paris Loewe SkinVitals Talika Coty Inc. L'Oreal

Davidoff **LVMH** The History of Whoo Dial Makeup Forever Thursday Plantation

Marc Jacobs Fragrances Diesel Tous

Dior Valeant Pharmaceuticals Mary Kay

Mediplorer **VELDS Skincare** Dr. Jart Melaleuca **DTRT** Vera Wang **Menard Cosmetics** Eisenberg Paris Versace Elie Saab Merck Walgreens Elizabeth Arden miu miu Wei Beauty

ELLEgirl Mont Blanc Yves Rocher USA Erborian My Trendy Kit Zegna

Estee Lauder **Nars Cosmetics** Zirh Natural Balance Pet Foods, Inc. Fendi

Mead

Note. Sourced from PETA (2020a).

Dr. Brandts

Table 38. List of top plastic polluting companies.

Anheuser-Busch InBev Dunkin' Brands Kroger Co. Boston Beer Co. General Mills McDonalds

Burger King Heineken Co. Molson Coors Beverage Co. Campbell Soup Co. Hershev's Co. Mondelēz International Chipotle Mexican Grill, Inc. Hormel Foods Monster Beverage Corp. Clorox Co. J.M. Smucker Co. National Beverage

Coca-Cola Co. Jack In The Box Nestlé

Colgate-Palmolive Co. Johnson & Johnson Nestlé Waters Na Conagra Brands Inc. Kellogg Co. Papa John's Keurig Dr Pepper Costco Pepsi Co.

Pilgrim's Pride Corp. Dean Foods **KFC**

Diageo Plc Kimberly-Clark Co. Pizza Hut Procter & Gamble Domino's Pizza Inc. Kraft Heinz Co.

Smithfield Foods, Inc. Starbucks

Taco Bell

Tyson Foods, Inc. Unilever Plc

Tim Hortons

Wendy's Whole Foods Market

Walmart Inc.

United Natural Foods Target Corp.

Note. Sourced from MacKerron, McBee and Shugar (2020).

Table 39. List of top HHPs companies.

BASF Bayer Corteva FM	C Sygenta
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Note. Sourced from Dowler (2020).

Table 40. List of publicly traded tobacco producer companies.

Al-Egbal Investment Company PLC Nikotiana BT Holding AD NTC Industries Limited Alajans Uan Makedonija AD

Altria Group, Inc. Old Holdco Inc

American Heritage International Inc. Pakistan Tobacco Company Limited

Aroma Enterprises (India) Ltd Pazardjik-Bulgartabac AD

Bellatora Inc. Perusahaan Rokok Tjap Gudang Garam Tbk

British American Tobacco PLC Philip Morris International Inc.

Bulgartabac Holding Group AD PT Bentoel Internasional Investama Tbk

Carreras Ltd PT Indonesian Tobacco Tbk Cat Loi JSC PT Wismilak Inti Makmur Tbk

Ceylon Tobacco Company PLC Scandinavian Tobacco Group A/S Charlie's Holdings, Inc. Sinnar Bidi Udyog Ltd

China Tobacco International (HK) Co Ltd SITAB Cote d'Ivoire Coka Duvanska Industrija a.d SLANG Worldwide, Inc.

Dupnitza-Bt Slantse Stara Zagora Tabac AD

Duvan a.d Smokefree Innotec Inc. Dzhei Ti InterneshnI Ukraina PJSC Smoore International Holdings Ltd

Eastern Co SAE Standard Vape Corp.

Gemini Group Global Corp Swedish Match AB

Gilla Inc. TAAT Lifestyle & Wellness Ltd Godfrey Phillips India Ltd Tabak a.d

Golden Tobacco Limited Turning Point Brands, Inc. Gotse Delchev Tabac AD Tutunski Kombinat AD Green and Hill Industries, Inc. Tvornica Duhana Zagreb d.d. Hanjaya Mandala Sampoerna Tbk **Union Investment Corp**

Harry's Manufacturing Inc. Union Tobacco & Cigarette Industries Company

High Tide Inc. PTC Imperial Brands PLC **Universal Corporation** ITC Ltd

Vape Holdings, Inc. Japan Tobacco Inc. Vapor Group, Inc.

Jerusalem Cigarette Co. Ltd Vapor Hub International, Inc. Kaival Brands Innovations Group Inc VaporBrands International, Inc.

Karelia Tobacco Co Inc SA Vector Group Ltd. Khyber Tobacco Co Ltd **VPR Brands LP** Korea Tobacco & Ginseng Corporation VST Industries Ltd.

Ngan Son JSC Wee-Cig International Corp.

Nhale Inc West Indian Tobacco Co Ltd Nicoccino Holding AB

Note. Adapted from Shugar (2020).

Table 41. List of major companies and banks driving deforestation.

ABN Amro	Genting Group	Nissin Foods
Banco do Brasil	ICBC	PepsiCo
Banco do Nordeste	Itaú Unibanco	Procter & Gamble
Bank Mandiri	Jardine Matheson Group	Rabobank
Bank of America	JPMorgan Chase	Rajawali Corpora
Bank Rakyat Indonesia	Kao	Royal Golden Eagle
Best Industry Group	Korindo Group	Salim Group
BNI	Malayan Banking	Santander
BNP Paribas	Mars	Sinar Mas Group
Bradesco	Mitsubishi UFJ Financial	SMBC Group
CIMB	Mizuho Financial	Triputra Group
Colgate-Palmolive	Mondelêz	Unilever
DBS	MUFG	Wilmar International
Ferrero	Nestlé	

Note. Combined from Forestsandfinance.org (2020) and Rainforest Action Network (2020).

Appendix G

Table 42. List of SDGs' targets used in the analysis.

Sustaina	Sustainable Development Goals Targets		
1 FOURITY	No poverty	1.2. By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.	
		1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	
2 HEED HARCES	Zero hunger	2.4. By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.	
3 COOD HEALTH AND WELL-BUNG	Good health and well-being	3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	
6 HAM HATTER AND AMERICAN	Clean water and sanitation	6.3. By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.	
		6.6. By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.	
7 AFFORDABLE AND CLEAN DIRECT	Affordable and clean energy	7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.	
		7.2. By 2030, increase substantially the share of renewable energy in the global energy mix.	

Targets



Decent work and economic growth

- 8.3. Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.
- 8.4. Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead.
- 8.7. Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms.
- 8.8. Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.



Industry, innovation and infrastructure

- 9.2. Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.
- 9.4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.



Reduced inequalities

10.3. Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard



Responsible consumption and production

- 12.2. By 2030, achieve the sustainable management and efficient use of natural resources.
- 12.4. By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
- 12.5. By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Sustainable Development Goals		Targets
14 IFF BLEW WHER	Life below water	14.1. By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
		14.2. By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.
		14.3. Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.
15 of LAND	Life on land	15.1. By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
		15.2. By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
		15.5. Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.
16 PRACE, JUSTICE NO STRONG INSTITUTIONS	Peace, justice and strong institutions	16.1. Significantly reduce all forms of violence and related death rates everywhere.
· =		16.3. Promote the rule of law at the national and international levels and ensure equal access to justice for all.
		16.4. By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime.
		16.10. Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.

Note. Sourced from United Nations (2015b)