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Socially Responsible Investments in continental Europe: a multifactor style analysis à la Fama and French

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To Antonio,

heri, hodie et semper,

both a wish and a promise

Socially Responsible Investments in continental Europe: a multifactor style analysis à la Fama and French

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Introduction

Socially Responsible Investment has undergone tremendous developments in Europe in the last few years. The movement was originally initiated as early as the 1920s in the UK when the Methodist Church began avoiding sin stocks in its investment policy. By the 1960s, this financial-moralist movement had started to spread to the Continent, as churches and religious groups placed their financial investments in line with their views and principles.

The link between financial investments and ethical concerns was first analysed in the mid '80s in response to the so called *South Africa divestment*. In reaction to the apartheid policies of the South African government, a number of public and private retirement funds had decided to divest their portfolios of stocks of companies that had businesses in South Africa. The States of Massachusetts, Connecticut and Nebraska, N.Y. City, Philadelphia and Washington imposed restrictions on their pension fund portfolios to avoid South Africa related businesses[1]. The South Africa divestment was linked to a specific issue debated in the United States and was the first time, as far as we know, that a portfolio was composed taking into account characteristics different from financial variables. For the first time in asset management, investors asked for something different and the variable that made this difference was something about *emotions, human rights*.

Since acceptance of a responsibility different from maximising profits may impose a burden on returns, as emphatically argued by Milton Friedman (Friedman, 1962)[2], many researchers, starting from the '90s, have focused their research interest on performances. The analysis of SRI funds' performance is very important, since, from a portfolio theory point of view, as soon as we restrict the menu of assets the portfolio managers can choose among, we are likely to endanger the performance of the portfolio, due to a lack of

[1] Wagner W., Emkin A. and Dixon R., "*South African Divestment: the Investment Issue*", Financial Analysts Journal, Nov-Dec 1984, p.14

[2] Friedman, M. "*Capitalism and Freedom*", Chicago: Chicago University Press, 1962

diversification. For this reason, most of the researches have tried to understand if these SRI funds underperform relatively to common funds because of less diversification and/or sector exclusion or if, instead, they do overperform because the SR companies they invest in are better managed. Summarising the findings of the researches, empirical evidence appears to suggest that SRI funds and conventional funds have a similar performance in terms of financial returns.
From a statistical point of view the differences, where existing, are not significant. In spite of different techniques used by different authors (from simple one-factor models to four-factor models with time-varying coefficients) the results are quite similar.
Following the literature about SRI funds performance and investment strategies, this study tries to detail how continental Europe SRI behave, in order to help investors to correctly evaluate this new kind of funds.
Firstly, the analysis tries to identify, if existent, a style bias in terms of size exposure and investment style (growth and value). In this case, as found in previous researches about UK and North America, our results show a significant small cap bias in continental Europe SR funds. The existence of this bias on so different geographical markets seems to highlight an underlying common strategy focused on avoidance of large stocks.
We verify also a significant value bias that has two different and convincing possible explanations. The first one is the avoidance of growth stock due to involvement of new technologies in armaments; the second reason is connected to the market crash after the *dot coms* bubble and the following predilection towards value stock.
In addition, a comparison among SRI funds and relevant benchmarks is performed to verify if an active management based on specific research about sustainability can add value from a retail investor perspective. Results show a significative underperformance when SRI performances are regressed on several market benchmark returns.

Preface

Ethics and Finance: an oxymoron?

Is it worth asking whether there is a place for ethics into economics and finance? Maybe we should, instead, maliciously, wonder is there *still* a place for economics into ethics.

We are not tricking with the words: economics was, indeed, born out of Moral Philosophy and still in the 19th century, Moral Philosophers were teaching economics.

In the following centuries many researchers have started to think of economics being a *neutral* science, instead of a moral one; at the end, economics has become a *wertfrei* science, not based on values; in a few word it has moved from *moral* science to a *pure* science[3].

Nowadays our economic theories and models straight derive from these thoughts and we are used to believe that there's no place for any consideration but financial return.

In the '70s a famous economist, professor Milton Friedman, claimed that "*the social responsibility of business is to increase its profits*"[4]; the idea is very strong expressed and derives from *capitalism* and *freedom* dualism. Such a phrasing can easily introduce what some authors call *the myth of amoral management*[5]. In this context, the term *amoral* express a corporate vision which does not take ethics into consideration; it is, indeed, thought to be *inappropriate* to speak of ethics into a business context.

Time goes by and professor Friedman quotation is not fashionable anymore; economics is, indeed, not only a mathematical science but a *moral* science and

[3] Tondini G., "*Il rapporto tra etica ed economia*", Cedam , 2001

[4] Friedman M., " *Capitalismo e libertà*", Edizioni Studio Tesi, ed. 1987, pag. 207. Il concetto è poi ripreso nuovamente in "*The social responsibility of business is to increase its profits*", New York Times magazine, 13 Settembre, 1970.

[5] De George R., "*Business Ethics*", Macmillan Publishing Company, 1990

acts according to a *double hermeneutics* principle[6]. Economists create models and theories that have a normative power and tend to influence behaviours; these same behaviours constitute the base and the starting assumptions for the same models. In such a context behaviours and economic models cannot be separated and there is a strict link between economics and social life.

A most interesting contribution to our discussion is the Brundtland Report (1987), which introduced and discussed the *sustainability* principle. The research by the *World Commission on Environment and Development*, commonly known as *Our Common Future*, defined the sustainable development as "*the development that meets the needs of the present without compromising the ability of future generations to meet their own needs*"[7].

Our Common Future suggested that no fair resource distribution, economic growth and environment protection can exist without social equity; an economic development respectful of mankind and environment is necessary in order the earth not to collapse.

In such a context, all economic agents cannot behave as if they lived in a mono horizon period but shall take into consideration the inheritance we leave to future generations.

The *nexus of contracts* the firm represents, then become not only economic links but social and environmental stakes. Such stakes can influence and constrain the firm's profit seeking maximisation process.

Subsequently, firms have a duty towards social responsibility; we should wonder if such a constrained maximisation process represents just a burden which endangers the return or if it represents an opportunity for the firm in itself.

Some authors have analysed the impact of a socially and environmentally responsible conduct over the firm profitability.

Most of them are convinced that a socially responsible conduct is profitable on the long run and in the short run the firm can gain economic benefits from

[6] Zamagni Stefano, Microeconomics lectures for PhD in Management, Bocconi University, Sept. 2001.
[7] World Commission on Environment and Development, "*Our Common Future*", Oxford University Press, 1987.

reputation. In such a reasoning, the firms are less subject to scandals, allegations and social reproach and can, therefore, look at the future without fear of boycotts and sudden unexpected liabilities.

Additionally, Alexander and Bucholz (1978)[8] have claimed that *socially aware and concerned management will also possess the requisite skills to run a superior company in the traditional sense of financial performance, thus making its firm an attractive investment.*

On the other side, some researchers are strongly against the introduction of guidelines different from financial variables. Rudd[9], for instance, questions the legitimacy of social responsibility criteria in the investments, claiming that *there is one important difference between social responsibility criteria and others. The latter are imposed on the manager solely by the investment considerations. It is true that they may be misguided, but the underlying rationale is defensible; namely, the aim is to protect the financial condition of the beneficiaries. Few of the social responsibility criteria have this property.*

[8] Alexander G.T. and Bucholz R.A., "*Corporate Responsibility and Stock Market Performance*", Academy of Management Journal, September 1978, pp. 479-86.

[9] Rudd A., "*Divestment of South Africa Equities: How Risky?*", Journal of Portfolio Management, Fall 1979

1. The social responsibility: birth and development

1.1 CSR and SRI

It's a long time since people started debating Corporate Social Responsibility (CSR from herein after) and Socially Responsible Investments (SRI from herein after).

It is possible to approach the theme under different perspectives and for this reason we will try to identify the *souls* which lead the discussion, basing our distinction on the purpose that the activists try to reach.

Even if the forerunners of social activism into investments can be identified in the United Kingdom, during the XVIII century, we shall look into two US active campaigns to identify the mainstream. The social campaigns we refer to are those against Vietnam War, at the end of the '60 and the opposition to the apartheid regime in South Africa[10].

At the end of '60, the Vietnam War provoked severe social turmoil in the US, especially among student, pacifists and religious groups. All these people were trying to find a visible way to show their concern and opposition to the ongoing war; at the end they had found their way in the *shareholders' activism*, meaning that investors tried to use their voting rights to contrast resolutions favourable to war and against peace. Many Churches and Charities started, together with activism, to divest from companies accused not to refrain from military logistic support. Debates and fierce discussions ended in the first general meeting on the socially responsible investments, in 1970, in Yale.

Following this ideas, two Methodist priests had founded, in 1971, the *Pax World Fund,* which represents the first open-end fund strictly connected to ethical instances.

The second fundamental campaign was the one against South Africa apartheid, in 1977. The activists, leaded by Reverend Leon Sullivan, proposed to American

[10] Sparkes Russel, "*Socially Responsible Investment, a global revolution*", John Wiley and Sons, 2002, pag. 48-67.

corporations a code of conduct they have to follow in South Africa, in order to respect human rights in their business. These rules are commonly known as the *Sullivan's principles*.

The Sullivan Principles are acknowledged to have been one of the most effective efforts to end discrimination against blacks in the workplace in South Africa, and to have contributed to the dismantling of apartheid. To further expand human rights and economic development to all communities, Reverend Sullivan created the Global Sullivan Principles of Social Responsibility in 1997. The declaration each corporation has to sign in order to comply with Sullivan's global principles is detailed in the following table:

Table 1.1 Sullivan's Global Principles

As a company which endorses the Global Sullivan Principles we will respect the law, and as a responsible member of society we will apply these Principles with integrity consistent with the legitimate role of business. We will develop and implement company policies, procedures, training and internal reporting structures to ensure commitment to these Principles throughout our organization. We believe the application of these Principles will achieve greater tolerance and better understanding among peoples, and advance the culture of peace. **Accordingly, we will:** **◆Express our support for universal human rights and, particularly, those of our employees, the communities within which we operate, and parties with whom we do business.** **◆Promote equal opportunity for our employees at all levels of the company with respect to issues such as color, race, gender, age, ethnicity or religious beliefs, and operate without unacceptable worker treatment such as the exploitation of children, physical punishment, female abuse, involuntary servitude, or other forms of abuse.** **◆Respect our employees' voluntary freedom of association.** **◆Compensate our employees to enable them to meet at least their basic needs and provide the opportunity to improve their skill and capability in order to raise their social and economic opportunities.** **◆Provide a safe and healthy workplace; protect human health and the environment; and promote sustainable development.** **◆Promote fair competition including respect for intellectual and other property rights, and not offer, pay or accept bribes.** **◆Work with governments and communities in which we do business to improve the quality of life in those communities-- their educational, cultural, economic and social well being--and seek to provide training and opportunities for workers from disadvantaged backgrounds.** **◆Promote the application of these Principles by those with whom we do business.** **We will be transparent in our implementation of these Principles and provide information which demonstrates publicly our commitment to them.**

The anti apartheid activists reached the important goal to convince many investors and Pension Fund to refrain investing in South Africa related business.
All the activists were focusing on war rejection and the respect of human rights, but the underlying ideas driving their behaviours were very different. We will try to identify the various underlying principles, the souls of these opinion movements.

1.1.1 The religious soul

In 1760 Reverend John Wesley, writing his Sermon, *The use of Money*, was tracing with powerful words the path to the future *ethical* investment[11].
Starting from the parable of the unfaithful steward, Wesley claims that "*[...] we should gain all we can but not at the expense of life nor at the expense of our health, [...]. Therefore we may not engage or continue in any sinful trade; any that is contrary to the law of God, or of our country [we should behave] without hurting our neighbour in his substance, in his body nor in his soul*".
Fierce and charismatic as a preacher, he considered activities such as alcohol addiction, weapons' use, prostitution and gambling as sinful activities to be avoided; these ideas, with some update, constitute the base for the modern *avoidance criteria* in modern ethical investments.
His ideas of us being "*[...] placed here (on earth) not as proprietors, but as stewards...we are entrusted for a season with goods of various kinds; but the sole property of them does not rest with us*" have been an ideal starting point for the Brundtland Report, written two centuries after.
Reverend Wesley's ideas have been a milestone in the field of ethical investments and have been the roots for the Methodist approach towards responsible investments. Basing on religious first ideas, the first UK ethical fund was born in 1984, the Friends Provident Stewardship, with Quakers and Methodist connections.

[11] Reverend John Wesley, "*The use of money, 47 Sermons*", Epworth Press Edition, 1974

1.1.2 The environmental soul and the *sustainability principle*

The earth global warming, the water resources waste with the desertification of wide geographic areas, the ozone layer, are just few examples of all the environmental problems we are asked to face everyday. People are increasingly worried about environmental themes and ask for an environmentally friend approach in the conduct of business.

Sadly, worries and concerns are often linked to environmental disaster all over the world. In 1984, at Bhopal, India, thousands people died and 50,000 were severely hurt by a chemical gas leak in the Union Carbide plant[12]. After this tragedy many people started to think with deep concern to all that activities which are not respectful of environment and human life.

Unfortunately, Bhopal is not the only dramatic example of what irresponsible and myopic behaviour can cause. In 1986, at Chernobyl, a dreadful nuclear accident took place, provoking thousands deaths and a nuclear contamination never experienced before.

The Brundtland Report followed, in 1987, and its concerns with regard to sustainable development, environmental respect and equity in wealth distribution had a fertile ground for debating and discussion.

On the other side of the ocean, another disaster took place in 1994 with the shipwreck of Exxon Valdez, a petrol-shipping container who polluted large areas and severely impoverished the marine life of the northern US costs. Exxon was then obliged to pay back 2 billion dollars to try to stop the pollution and suffered a huge drawback in its reputation.

Also General Electric is well know for negative environmental reasons, since it has been obliged by EPA (Environmental Protection Agency), in 2001, to heal Hudson River, which had been polluted for many years without any control.

Unfortunately we could report hundreds similar examples and we are, at this point, interested to highlight the potential risk embedded in environmental damaging behaviours.

[12] Union Carbide has been recently acquired by Dow Chemicals.

When acting irresponsibly toward environment, a company is affording an *environmental risk*, which is, potentially, very expensive. Very often the shareholders are not aware of the environmental liabilities they can be asked to face in the near future; this potential balance sheet cost is not reflected in the price of the shares but is it not, by no means, a negligible cost.

1.1.3 The fair trade soul and the concerns about globalisation

In *Our Common Future*, the ideas of wealth distribution, environment and sustainable development are investigated in an international context.

Globalisation represents a strong opportunity to face and solve the differences in the living standards of the North and South of the world.

Many problems are related to the exploiting condition imposed to the peasants in poor countries for the production of coffee, fruits, vegetables; the *fair trade* movement tries to afford and solve this problem, though fair treatment of the workers and a fair profit sharing.

In addition there are poor labour standards in the developing countries, where corporations can invest according to regulations that would be unacceptable in west developed countries. Under a legal point of view the multinational corporations don't break any rule but exploit in opportunistic way the legislative gaps that exist all around the world.

In this context, if the globalisation can be a powerful way to share knowledge and opportunities, it can be transformed into a cheap way to exploit workers and impoverish the natural resources of less developed countries.

Starting from the '70, all these ideas have blended in the SRI principles, asking for a fair finance and a most attentive way of making business. SRI can be expressed in different way, depending on the ideas implemented in the investments.

From time to time one of the souls we have analysed has prevailed, depending on the *basic underlying values* that drive the social context.

Sparkes, in his book, has identified some *geopolitical* factors that acted as drivers for SRI development, as we can see in the following figure:

Table 1.2 Geopolitical factors and SRI

Event	Consequence	Year
Vietnam War	Birth of SR investments	1969
Consumer activism	GMO campaign	1970
Apartheid in South Africa	Pension Fund activism	'80s-
Chernobyl/Exxon Valdez	Environmental concerns/ environm. friendly investments	'80s-
Fair trade	Retail investments	'90s
Wild globalisation concerns	SRI= CSR	2000-

Source: Sparkes, 2002

1.2 Ethical, Socially Responsible or Sustainable investments? A definition

The terms "ethical" and "socially responsible" are often thought to be synonyms and there is not a clear distinction between the two words.

According to MacIntyre, the nowadays cultural relativism fights against the idea of immanent and superior idea of Moral[13]. For this reasons the idea of ethics is not easily definable. The terms we use, Moral and Ethics, in their basic roots cannot help us to circumscribe the topic. Moral, indeed, come from the Latin word *mos*, meaning "*usage, custom*" and Ethics derives from an ancient Greek word, *êthos*, meaning, again, "*usage, custom*". These words, then, refers to customs and are related to the private idea which each of us has with reference to the Good and the Evil. For this reason, to attribute a term such as *ethical* to an investment has a certain unpleasant flavour.

Ethical investments were born, originally, from Methodist and Quaker ideas, then in a religious context. Religious groups had attributed to their investment ethical

[13] MacIntyre A., "*Dopo la virtù. Saggio di teoria morale*", Feltrinelli, 1988

characteristics because they refused to invest in sinful sector and activities. The words Moral and Ethics, in a strict religious sense, have very clear characteristic and they are linked to a *code of conduct* that express the idea of Good and Evil in a way known and well recognised by the religious community.

Because of these religious roots, this kind of investments are often termed, in the UK, *ethical*. In the US, instead, the screened investments have had, since the beginning, a backing in the Vietnam War and anti-apartheid movements and for this reason they are, most of the times, called *socially responsible*.

Cowton (1994)[14], in distinguishing the terms, focuses on the potential inconsistency of the word *ethical* referred to investments. Investments, he claims, are delegated to a fund manager that should, in his job, seek the highest return; potentially, this fund manager can consider a screened portfolio simply as a niche product and the term *ethical* as a marketing tool. In this case an inconsistent behaviour between the investor and the manager could arise[15].

Anderson *et. al.* are much more critical than Cowton and call the self rewarded *ethical* investment as "*ethical simplistic investment*" or "*fashionable investment*"[16]. Ethical investments ignore the complexity of moral arguments and the ethical principles are rarely if ever stated. Scruton[17] chooses the issue of testing pharmaceuticals products on animal to make the point; he claims *[...]are we to test these products on human beings? Use them without testing? Give up pharmaceutical research altogether? Would those who oppose investments in these areas refuse drugs tested on animals when, without them, they will not recover from a serious illness? To assume that this complex ethical issue can be brought to a conclusion, simply by refusing to invest in firms which test drugs on animals, is to adopt a frivolous and self-indulgent response to a real moral problem- and that itself is immoral [...].*

[14] Cowton C., "*Playing by the rules: ethical criteria at an ethical investment fund*", Business Ethics: a European Review, Vol. 8, no. 1, Jan. 1999.
[15] For an accurate review of all the critics, see A. Lewis, "*Morals, markets and money*", Financial Times-prentice Hall, 2001, pag. 25-28.
[16] Anderson D., "*What has 'ethical investment' to do with ethics*?", London: Social Affairs Unit, 1996.
[17] Scruton R., in Anderson D..

Following these critics, most of the investors, nowadays, is willing to use the term *socially responsible* instead of *ethical*.

Sparkes[18] tries to distinguish the two terms, proposing the use of "ethical" for all those investments performed on behalf of *value-based organisations* (religious charities, churches) which have a clear code of conduct they consider to be ethical and using "socially responsible" in a residual way, that is, a lay approach to investments.

According to the author here writing, we could overcome the definition problems using the term *sustainable*; this word can, potentially, gather environmental instances, justice and fair development. In this word, furthermore, we can find an echo of reverend Wesley's speech about the Earth property; that is, we can dispose of the globe but its property is immanent to God.

Hereinafter, by the way, we will keep on using "socially responsible investments" or its acronym, SRI, since this term is the most commonly used in literature.

1.3 Socially Responsible Investments

The term SRI is generally referred to financial instruments that embed a social component into their destination or origin. Investors do not value exclusively the risk/return variables but involve, in the decision, social and environmental criteria.

We will try to briefly list these instruments to give the reader an overview, but, ultimately, we will focus our attention on the SR open-end funds, which are the most common and well known investment vehicles.

[18] Sparkes R., "*Ethical investment: whose ethics, which investment*?, Business Ethics: a European Review, Vol. 10, no. 3, July 2001.

1.3.1 SR open-end funds

The Ethical Investment Research Service (EIRIS), defines ethical funds *those which exclude one or more company group from their portfolio for non-financial reasons*[19]. EIRIS was born in 1984 as an independent research institute, backed by charities and churches and it often uses *ethical* instead of *socially responsible*. Before investigating in details SR funds, we shall try to define the terms used.

Charity funds are those devolving part of the management fee or part of the fund performance to charity projects identified by the fund manager or by the investors. In this context the portfolio is not necessarily a *screened* one since the social variable enters just in the donation received by the project. For this reason we would prefer not to include this kind of funds into the SR definition. We shall use SR for those investments screened according to social and environmental criteria, as in the EIRIS definition.

Green funds or *environmental funds* are those screened on the basis of environmental criteria; they generally choose to invest in environmental friendly sectors and companies.

They can choose to avoid investing in polluting sector (such as automotive industry or oil companies), following an *avoidance approach* or *negative approach* or rewarding those companies which implements environmental friendly systems or try to lessen in a sensible way their polluting activities. In this case the approach is a *positive one*; such a fund can, for instance, invest in a automotive company who has chosen to use hydrogen power.

In some cases green funds invest in companies that produce alternative energy sources, such as wind, thermic and sun energy. If the fund invests exclusively in these sectors it is still a green fund but becomes a sector fund, so it cannot diversify its investments.

The investment strategies have changed substantially during time. In their infancy, the SR funds were mainly screened according to negative criteria. They excluded by the portfolio the negative sectors, such as automotive, tobacco

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[19] www.eiris.org

manufacturing, weapons, oil, or those companies that did abuse human rights, were very polluting or were known for unfair labour practices. They could exclude also those companies having business in countries with dictatorial regimes or in countries with poor human right practices.

In a second stage the funds have started to add positive criteria to negative ones; in this case the fund manager could reward a company with strong social and environmental commitment independently from the sector the company belonged to. In the following table we can summarise the criteria commonly used:

Table 1.3 Criteria commonly used

NEGATIVE/AVOIDANCE CRITERIA	POSITIVE/INCLUSION CRITERIA
Armaments and nuclear weapons	Corporate code of conduct
Product testing on animals	Good labour/employment practices
Alcohol production	Good minorities protection practices
Tobacco manufacturing and promotion	Control of polluting activities
Disrespectful environmental and microclimates practices	Respectful environmental and microclimates practices
Poor labour/employment practices	Waste recycling
Poor minorities protection practices	Safe and healthy premises for workers
Gambling and casinos	Parental help
Pornography production and promotion	
Polluting practices and production	

Source: Sparkes, 2002

If we look at the table with a critical eye we can get immediately aware about some of the negative criteria being in *grey areas*.

We can refer, for instance, to the animal testing. Many of the funds exclude *a priori* animal testing industries because of the cruelty of the practices. Some authors argue that the unethical side of the coin is to damage companies that invest in research to find new medicines for serious diseases. So, a part from the cosmetics testing (which most of people condemn), the medicine testing is a much debated area of interest[20].

The same negative criterion related to armaments is not, according to same authors, incontrovertible[21]; each state has its own army and security forces, they claim, and these forces need to be armed for the population safety.

Even if we could agree in same way, we shall not forget that to sell armaments to countries in which human rights are constantly violated and where military or dictatorial regimes are in place cannot be considered socially responsible and that armaments must be treated with the most serious criteria. We must add, for sake of completeness and conscience, that we cannot include in armaments the mines that are, definitely, an outrageous attack to human mankind.

From what said above, we can derive that the criteria can be, sometime, difficult to implement in the portfolios. In addition, the strict avoidance criteria can sensibly endanger the possibility of diversification of a portfolio.

For these reasons practitioners have moved from an *in-out* (or black/white) criterion to a *best in class* approach. This approach tends to include in the portfolios all those companies that, even if placed in a black sector, have moved towards social responsibility in terms of practices and investments.

Investment practice is generally made up of two different steps.

In the first part there is a team of analysts that implement the research based on socially responsible screens. After researching and ranking the companies, they identify an investable universe. Also an *ethical committee* can have a role in this first part, setting the criteria that the companies have to satisfy in order to be chosen in the menu.

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[20] Taylor R., "*Putting ethics into investments*", Business Ethics: a European Review, Vol. 10, n. 1, Jan. 2001

[21] Baue W., "*The black and white and grey areas of military and weapons screening*", www.socialfunds.com, 28 February 2003

The second step is completely independent from the previous; fund manager, taking into consideration the universe the analysts have circumscribed, takes all the investment decision basing the judgement exclusively on financial criteria.

This approach is called *twin track* and gives the fund the possibility to buy from external sources the menu of activities to put in the portfolio.

The approaches considered can have a different impact on the companies screened. If the fund screens out a company *tout court*, that company will never know how much its behaviour can be damaging.

If the fund, instead, engages into a discussion with the company, trying to explain the critical points that led to the exclusion, this represents a chance for the company itself.

In many cases, rather than simply divesting, many institutional investors use their shareholders' voting rights to address some socially responsible issues or to contrast activities that they consider not appropriate under social or environmental point of view. This approach is referred to as *shareholders' activism*. This possibility represents a very powerful bargaining opportunity shareholders have to press the companies to engage into socially responsible activities.

1.3.2 SR closed-end funds

Closed-end fund are very similar to the open-end ones, a part from the possibility that the investors have to dismiss their shares at market prices.

If we start from the assumption that SR investments are particularly well performing in the long run, this instrument can constitute a good chance for the investors[22].

In Italy, one investment house has launched a SR real estate closed-end fund; the idea is appealing: they invest, indeed, in real estate activities that *promote the*

[22] In the following, we will make some further consideration about the long run performance of the companies which implement socially responsible conducts.

human condition. Leaving apart the *marketing* side of the definition they have given in the prospectus, the fund invests in properties used for leisure time (cinema, theatres, gyms), education (schools, universities offices), health (clinics, hospitals, retirement houses)[23].

1.3.3 SR bonds

When we speak of a SR bond we generally refer to two different kind of instruments.

In the first case, a bank issues a bond whose return is predefined. The return of the bond is just above the inflation rate and the investor finances a worthwhile project and the bank acts as an intermediary.

In the second case, instead, the bond is issued by a government or a company which can be defined SR to finance some SR activity.

In the case of a Government issue, we need to highlight some *caveat*; judgement about social responsibility of a company can be relatively easy. In the governments' case, instead, the analysis is quite complex.

Governments are deeply involved in grey activities as armaments, supranational military armies and can have different attitudes towards minorities and human rights.

An important SR rating agency, Ethibel, has produced a list of Governments that can be judged fair under social and environmental criteria.

It is quite interesting to look at the variables they have used to measure the extent at which a government can be considered socially responsible.

They have assigned a score to all the variables and they have then ranked the governments according to the total scoring, as in the following table.

[23] In Italy, Bipiemme Real Estate has launched Investietico, which invests according to the screen above analysed.

Table 1.4 Ethibel criteria

Human rights	Government responsibility
Political and civil rights	Political responsibility
Economical, social and cultural rights (health, housing)	Economical responsibility Cultural and social responsibility
Rights related to association and collective movements	Environmental responsibility Cooperation for third world countries responsibility

Source: Valori

Ethibel have excluded from the list of the first 17 countries Italy ad USA while the Scandinavian countries have obtained the highest scores.

1.3.4 Community Investments

Community investments are those investments promoting cultural and economic development in rural or poor urban areas through schools, theatres, sport centres. These investments are very often linked to microcredit and for this reasons they are not easily measurable. The local financial service organisations focus on people who have been denied access to capital and provide them with opportunities to borrow, save and invest in their own communities.

The only data we can refer to are related to Canada and US, whilst we have not possibility of measuring them in Europe.

1.3.5 SR lending

Socially responsible lending is referred to the possibility for financial institutions to commit assets using guidelines on social responsibility and environmental sustainability. This opportunity lies in the area of socially responsible lending and banking. Social responsibility policies, in this context, apply specific social and environmental guidelines to the granting of commercial loans.

2. The size of SRI all over the world

We will focus our attention on the quantitative size of the SRI markets in different geographic context. Hereinafter we shall deal mainly with the SR open-end funds and will refer to them simply as *SR funds*.

All data reported are collected from different sources and then they are heterogeneously aggregate: we can use them just to have a general idea of the phenomenon.

2.1 European market

Social Responsible Investment has undergone tremendous developments in Europe in the last few years. The movement was originally initiated as early as the 1920s in the UK when the Methodist Church began avoiding sin stocks in its investment policy. By the 1960s, this financial-moralist movement had started to spread to the Continent, as churches and religious groups placed their financial investments in line with their views and principles. While this "niche" has remained a leading example for the SRI world, in the 1990s, SRI began a new phase of development.

Presently, there is a duality to European institutional SRI:

• It maintains a steadfast niche market.

• It is gaining momentum in being accepted by the financial sector.

The SRI market is usually split between retail and institutional investment. Retail covers individual savings and investments, while institutional covers basically everything else.

There is a major difference between retail and institutional SRI. Retail investment reflects an individual's financial and non-financial choices, which means it is possible to tailor one's investments to one's views and principles.

Institutional investment on the other hand, where volumes per investment are presumably larger than on the retail front, is more complex in SRI terms:

• The most restrictive vision of institutional investment applies to companies investing with their own funds (shareholder's funds, equity). These could be insurance companies, banks, corporations, etc.

• To this we add a category of investors considered as institutional because they are not individuals: churches, foundations, and charities, whose investment capacity is somewhat smaller than the above category, but who do represent an "individualised" vision of ethics.

• The third layer is made up of investors investing money on behalf of others: these are mainly pension funds and other retirement financing systems. While the volumes they invest may reach very large proportions and be decisive on markets, their noticeable difference with the prior examples is the fact that they represent multiple stakeholders. In effect, investment decisions are not made by a sole financial officer, but rather by a group of empowered people very often including union and investor representatives.

And as we will see, these are decisive elements in the issues of why institutional investors have become active on the SRI front

2.1.1 SRI European market for retail investors

Europe is a very dynamic and fast growing market for SRI development.

SRI were born in the UK that is, indeed, the most developed country for investments in Europe.

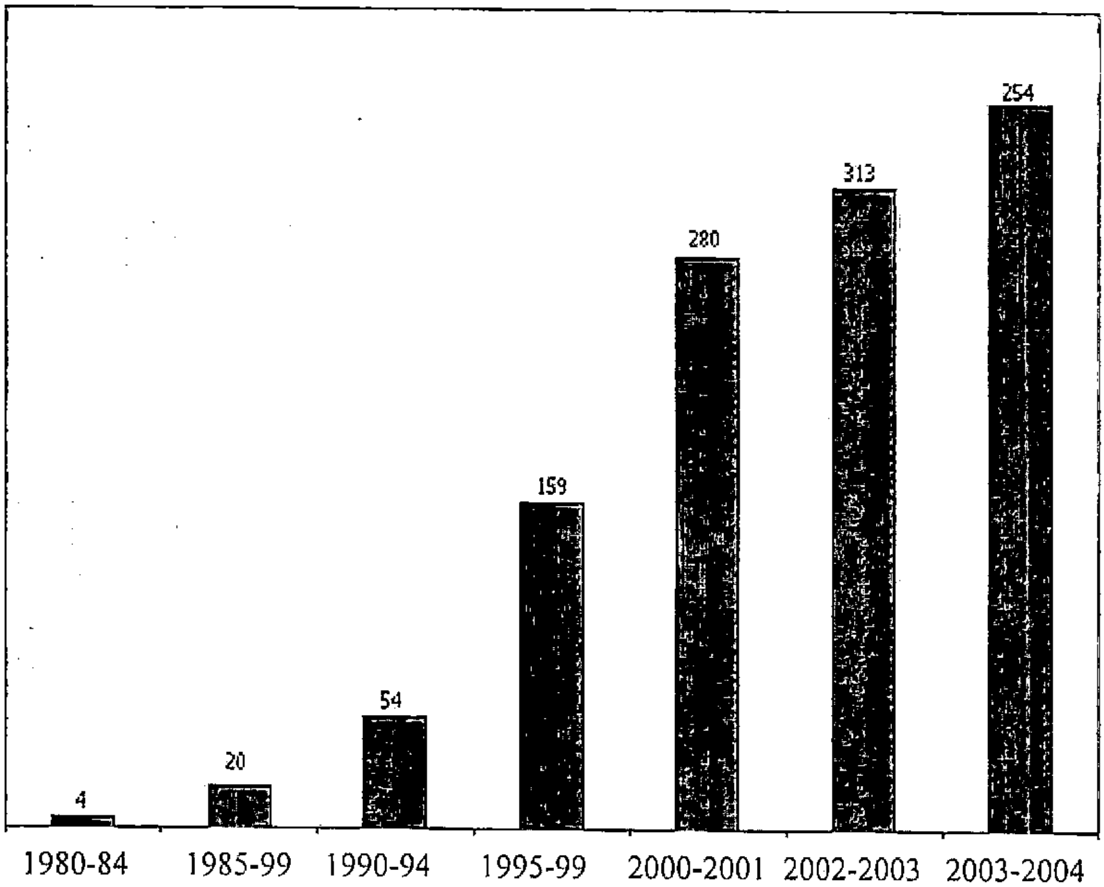
For European market we refer to data by Avanzi Sri Research[24]. The researchers have analysed the European market of the retail funds that use social, environmental or ethical screen in the investment process and are marketed as SR vehicles.

[24] Avanzi Sri Research, "*Green Social and ethical funds in Europe 2004*", Milan, November 2004, disponibile sul sito www.avanzi-sri.org

The research focuses on SRI markets of Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Norway, Poland, Spain, Sweden, Switzerland, the Netherlands and the United Kingdom.

On June 2004 there were 354 green, social and ethical funds operating in Europe. We can look at the tables below to highlight the growth in the number of funds and their size in the different European markets as exhibited in the graph below.

Graph 2.1 Number of SRI funds, cumulated, in the period 1980-2004

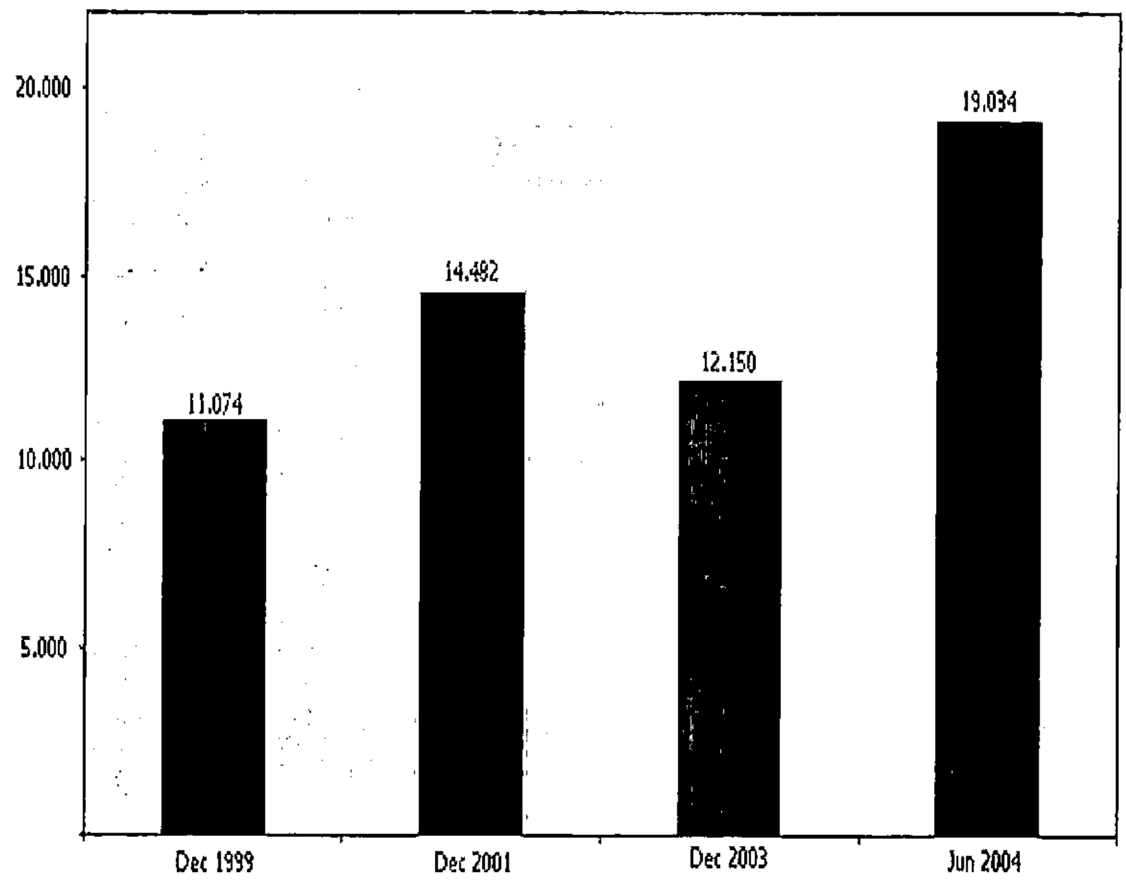


Source: Avanzi SRI Research/ SiRi Company, 2004

From June 2003, 41 new funds were born. The most dynamic markets are Austria and France with a growth rate in terms of number of funds of 25% in one year. In terms of number of funds, the UK, Sweden, France and Belgium accounts for about 64,4% of the assets in Europe.

As we can see in the table below the total amount of the SRI assets under management grew from 12,2 billion as of June 2003 to 19,0 billion as of June 2004 (on one year horizon the increase has been of 57%)[25].

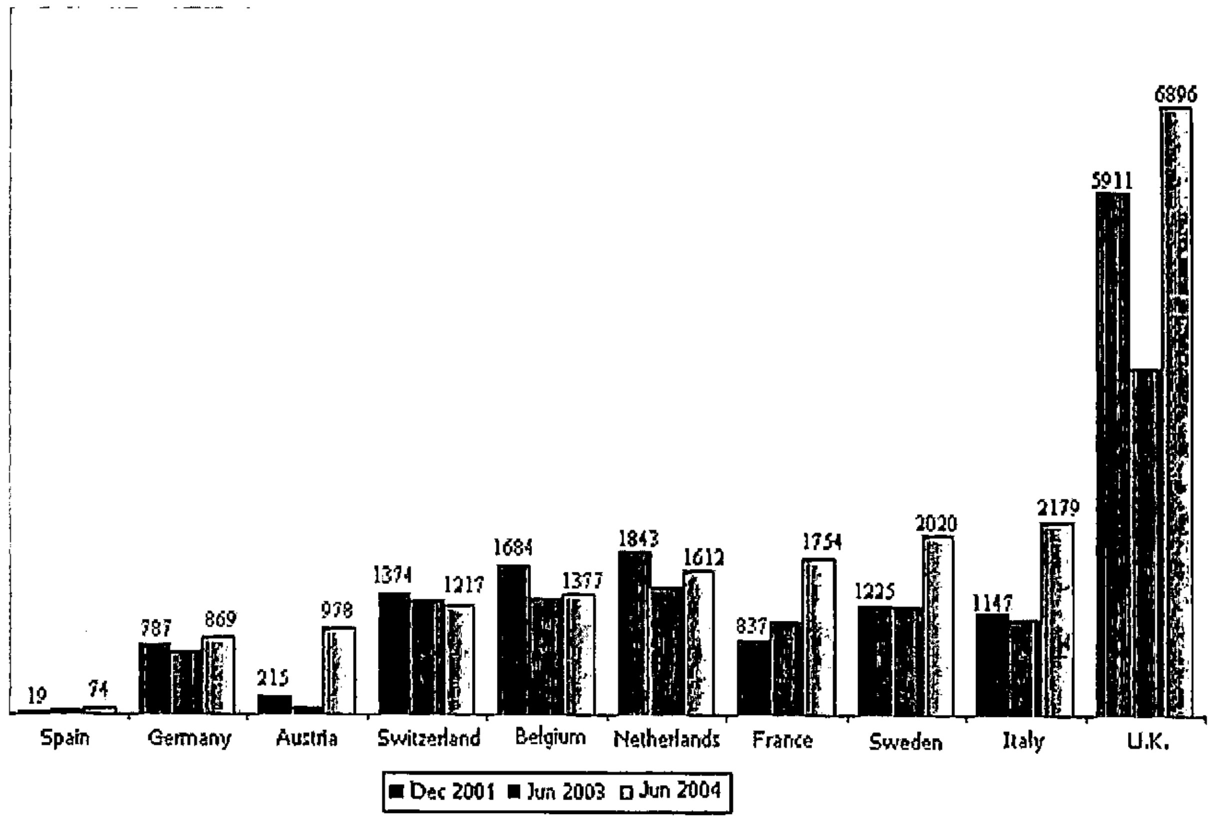
Graph 2.2: Total assets under management for SRI funds domiciled in Europe
End of June 2004, mln Euro



Source: Avanzi SRI Research/ SiRi Company, 2004

[25] Part of this increase is due to the inclusion, in the 2004 quantitative figures, of Stewardship Pension Fund, that represents the largest SR investment vehicle in Europe. The Pension Funds had not been included in the UCITS categories considered in 2003.

Graph 2.3: SR funds assets per country (mln Euro on 30 June 2004)



Source: Avanzi SRI Research/ SiRi Company, 2004

In terms of asset distribution, the UK remains the biggest market in Europe for SRI with a percentage of approximately 32% of the total European market. Notwithstanding the growth in assets under management, the SR investments represent less than 1% of the total assets managed in Europe.

Largest funds in Europe can be visualised in the table below. The average value of the portfolios is of 53.8 millions Euros. It is worth noting that the average figures are determined by a small number of very big funds.

Graph 2.4 Largest funds in Europe

Ranking June 2004	Ranking June 2003	Asset Management Company	Fund Name	Country	Asset (mlnEuro)
1	New Entry	Friends Provident Pensions	Stewardship Pension Fund	United Kingdom	1036
2	New Entry	Pioneer IM	Unicredit Obblig. Euro Corp. Etico	Italy	933
3	1	ISIS AM	ISIS Stewardship Growth Fund	United Kingdom	802
4	New Entry	Erste Sparinvest ESPA Bond	Mündelrent	Austria	721
5	2	Framlington Unit Management	Framlington Health Fund **	United Kingdom	677
6	New Entry	NPI	Socially Resp. With-Profit	United Kingdom	471
7	3	ABN AMRO	ABN AMRO Groen Fonds *	Netherlands	463
8	4	Sanpaolo IMI AM SGR S.p.A.	Sanpaolo Azionario Intern. Etico	Italy	431
9	5	Sanpaolo IMI AM SGR S.p.A.	Sanpaolo Obbligazionario Etico	Italy	406
10	New Entry	Friends Provident Life Assurance Ltd	Stewardship Life Fund	United Kingdom	377

* The Dutch Groen Fonds are not fully comparable with traditional UCITS. These funds operate under a particular law and provide loans and credit to environmentally innovative projects.

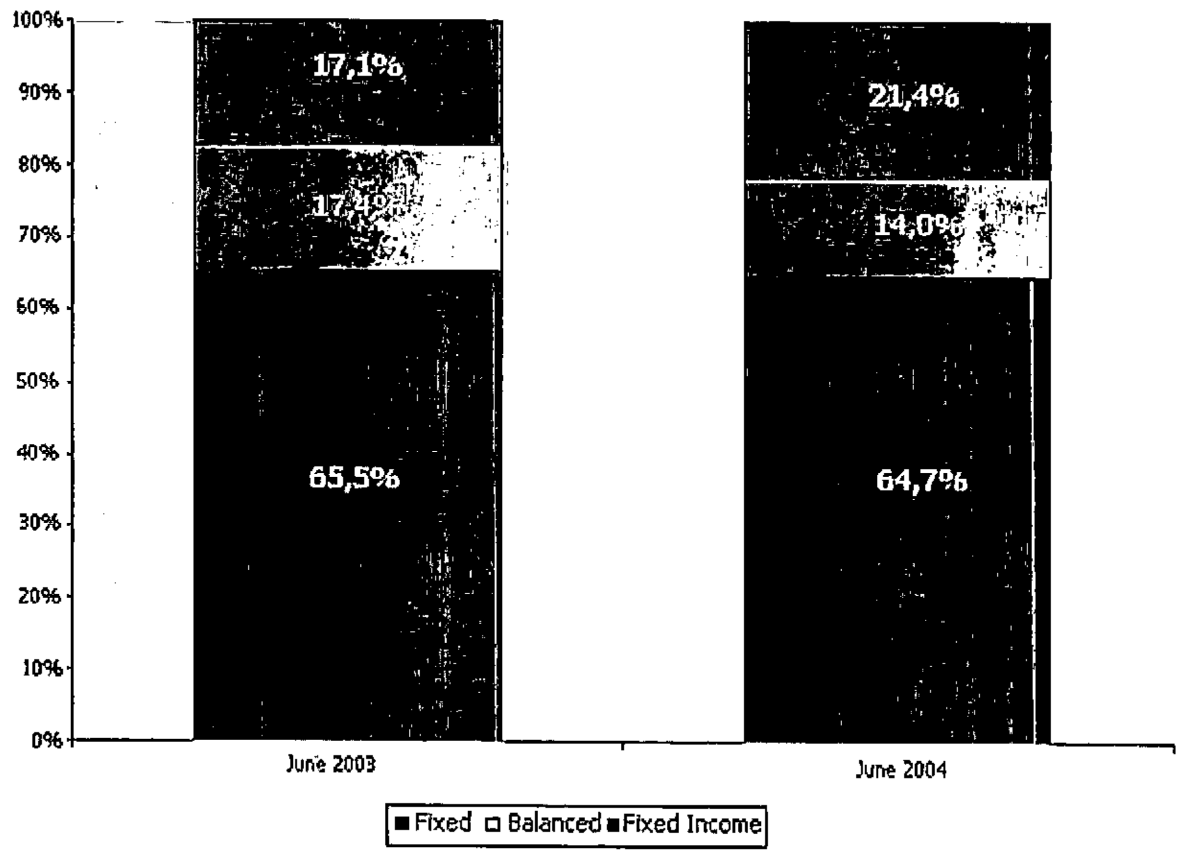
** Framlington Health Fund, which is a specialised equity fund (heathcare), has been included since a few negative and positive screens are applied.

Source: Avanzi SRI Research / SiRi Company (2004)

To complete the review of European SR market can be interesting to look at the distribution of funds in terms of asset classes.

Remarkably, most of funds are equity and balanced funds; this can be due to difficulties in assessing the social responsibility of bonds and bonds issuers. Whilst, indeed, judgement about the characteristics of corporations (and then of the stocks in the portfolios) can be relatively easy, to judge government bond issues is more complex.

Graph 2.5 SRI assets distribution



Source: Avanzi SRI Research/ SiRi Company, 2004

In terms of portfolio holdings, SR funds seem to be active on telecommunications, financial and pharmaceutical stocks, as in the table below.

Table 2.1: Most frequent stocks in SR funds portfolios (on 30th June 2004)

Ranking June 2004	Company
1	AstraZeneca
2	Vodafone
3	Pfizer
4	Ericsson
5	Hennes & Mauritz
6	Citigroup
7	Svenska Handelsbanken
8	Novartis
9	GlaxoSmithKline
10	HSBC Holdings
11	BP
12	Nordea Bank
13	Johnson & Johnson
14	Royal Dutch Petroleum
15	Royal Bank Of Scotland
16	Intel
17	Microsoft
18	Nokia
19	Volvo
20	Bank of America

Source: Avanzi SRI Research / SiRi Company (2004)

2.1.2 SRI European market for institutional investors

The data figures about European institutional market are expressed in detail in a recent research by Eurosif[26].

The researchers analyse the reasons that pushes institutional investors to be active on the SRI front.

The focus is on the double level of a demand and a supply side. It is worth following their reasoning.

[26] Eurosif, *"Socially Responsible Investment among European Institutional Investors"*, 2003 Report. Available on www.eurosif.org

On the demand side it is important to point out that, as described before, the first movers on the market were institutions with strong identification with their values, such as religious groups, acting on internal agendas. Some other sensitive groups, such as unions, later began using their powers in order to push their own SRI agenda where possible. As it turns out, in several countries such as the UK, France and the Netherlands, employee representatives nowadays have been granted significant power in the management of pensions or employee savings plans. This has been a deciding factor in the move of these latter funds towards SRI.

From a supply-side perspective, the offer of SRI products by asset managers has grown rapidly in volume as well as in diversity.

Product differentiation is manifold:

• Across investment vehicles: pooled funds, segregated funds, funds of funds, multi-management, trackers (ETFs),

• Investment universe: sector, area, SRI criteria,

• Range of SRI criteria application across financial instruments (stock, private debt, public debt, monetary),

• Typology of SRI method used: screening, engagement, etc.

On another level, the invested amounts on the institutional market makes custom-made products more profitable. Asset managers are ready to tailor investment products to the needs of their customers. As a consequence, the SRI institutional market has two faces: one is quite visible, as it comprises market tradeable products such as pooled funds. The other is not so readily visible as SRI takes place within the framework of party-to-party mandates and in every day investment practice.

Most regulatory developments took place in the last ten years in response to the demand for SRI products and regulatory changes in the fields of transparency and disclosure.

Disclosure laws compelled listed companies to be transparent about their policies across the continent. In the fund management sector, investments are also subject to disclosure policies as in the case of the Statement of Investment Principles (SIP) in the United Kingdom, and similar regulation in France or Germany.

During the same period, more powers were given to unions in pension investment policies in the Netherlands and in France. Unions used this power to create labels or dedicated investment policies reflecting their SRI interests.

Moreover, because of the series of financial scandals that took place in recent years, there is an increased demand for SRI. Enron-type events opened the public's eyes to transparency and corporate governance issues.

As a consequence, management and shareholder responsibilities have gained importance on the political agenda. Switzerland, for example, has a law on reporting obligation about the use of voting rights.

At this level, as at many others, mainstream corporate financial concerns meet with those of the SRI world.

Interestingly, self-regulation is also part of the picture, as insurance companies in the United Kingdom or in the Netherlands have created SRI guidelines through their trade bodies.

These initiatives either make up for the absence of local regulation, or simply add to the arsenal of available rules on SRI markets.

It is very interesting to look at the drivers of SRI development in the different geographical areas and to the key dates for the growth of SRI.

Table 2.2 Framework drivers and their local applications

	Applies to the following country *							
Law/Rule	UK	Nl	Fr	De	It	Es	At	Sw
Corporate disclosure			X					
Investment disclosure (Pension Funds or equivalent)	X		X	X				
Reporting of voting rights								X
Corporate Governance	X		X	X	X	X		X
Union empowerment	X	X	X					
Trade body guidelines	X	X						X
Union Codes		X	X					

- *Uk = United Kingdom; Nl = Netherlands; Fr = France; De = Germany; It = Italy; Es = Spain; At = Austria; Sw = Switzerland*

Source: Eurosif analysis

Table 2.3 Drivers of SRI development

July 2000	Amendment to 1995 Pensions Act requiring SRI disclosure in the UK
July 2000	UN Global Compact
July 2000	Dutch union FNV calls for pension funds to draw up investment codes
January 2001	Regulation requiring disclosure in Belgium
May 2001	French law makes SEE reporting mandatory
June 2001	European Union begins development of CSR Strategy for Europe
October 2001	Association of British insurers issues SRI disclosure guidelines
January 2002	Regulation requiring statement of SEE principles for private pension funds in Germany
June 2002	Dutch insurance companies create Code of Conduct including social responsibility

Sources: Morley Insight and Eurosif Analysis

The researchers have clearly highlighted that there is no single definition of SRI. They have pointed out three levels.

The first layer, or the core, is made of elaborate screening practices. This includes both positive screens (such as best in class) and extensive exclusions.

• The second layer is made up of simple exclusions (negative screening), which resembles risk management. Typically, this includes screening for tobacco only or activity in Myanmar (Burma) only. Almost all Dutch pension funds use these kinds of screens.

• The third layer consists of all engagement practices. These do not establish a selection of funds through criteria as in screening, but rather exert their power at the corporate governance level to push for issues that are connected with CSR among other things. On occasion, engagement may be combined with screening. Many UK pension funds practice engagement.

This segmentation becomes remarkable when looking at the size of the SRI institutional market in Europe.

Table 2.4 Views of the institutional SRI market in Europe (Euro Billion)

Core SRI	Adding SIMPLE EXCLUSIONS	Adding ENGAGEMENT
34	218	336

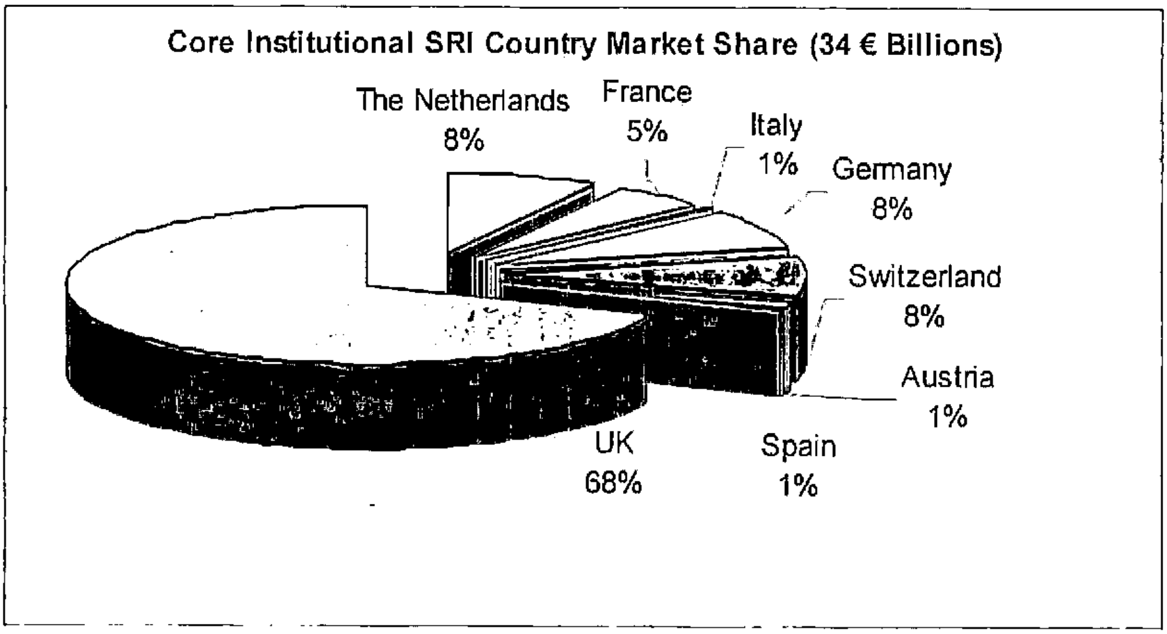
Source: Eurosif Analysis

As we can see, the market in the widest sense is almost ten times larger than that of the core definition. These different analyses open the way for two complementary visions of the market.

At its core, institutional SRI is approximately €34 billion. This approach removes engagement practices and simple exclusions of asset managers. This view reflects the difficulty of measuring engagement in the absence of a common definition, law, or reporting obligation, as is the case in the UK as well as in other European countries.

As shown in the following table by Eurosif, using the core market approach, the United Kingdom is the most developed institutional SRI market in Europe. Afterwards, Germany, France, the Netherlands and Switzerland are of similar sizes. Finally, Austria, Italy and Spain close the ranks as less developed markets.

Graph 2.6 Core Institutional SRI Country Market Share (34 € Billions)

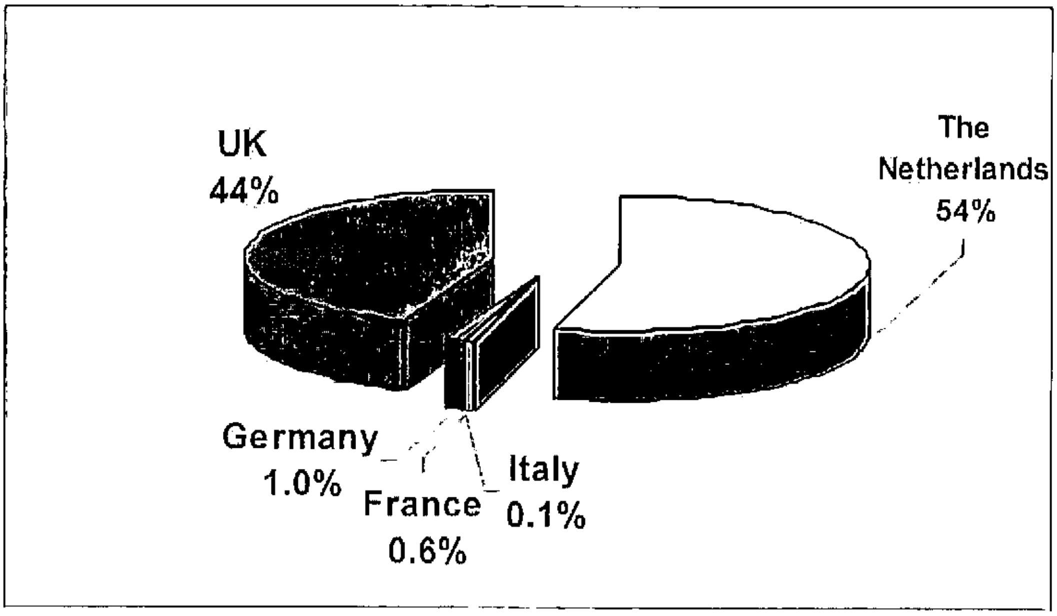


Source: Eurosif analysis

It is interesting to note that in the more restrictive view of the SRI market, the domination of the UK is not the consequence of pension fund involvement, but rather of its charities practicing elaborate negative screens, which alone account for 82% of the UK market.

In this enlarged view of institutional SRI, Eurosif calculates institutional SRI among European investors as €336 billion. The following graph (2.7) suggests that SRI has already entered the mainstream financial markets in countries such as the UK and the Netherlands. This approach posits that engagement practices and simple exclusions are increasingly being accepted and adopted by the greater financial community. Comparing AUMs subject to engagement for pension funds in the UK to the total UK share ownership of their pension funds produces an SRI ratio of 24%. Similarly in the Netherlands, almost all of the pension funds surveyed for this study said they applied at least simple negative screens in their fund selection, either as a form of risk management or an ethical statement (i.e. the Doctor 's Pension Fund screens out Tobacco). These facts may be viewed as a good sign for the future of the SRI since the high penetration rate of these practices point to investors and asset managers viewing them as causing little or no financial risk and possibly helping build company value.

Graph 2.7 View of Country's size on the Institutional SRI market (336 € billion)



Source: Eurosif analysis

2.2 Canadian market

According to research by MJRA, Canadian SRI mutual funds experienced spectacular growth during the 1990s[27].

In 1989, SRI mutual fund assets totalled about $102 million, a number that swelled to $3.8 billion by the end of 1999. This represented a growth rate of more than 3,700% during the 1990s. Overall, the 19 SRI mutual funds that were available for sale in 1999 represented about one percent of the market in Canada when measured by assets, according to figures compiled by MJRA and the Investment Funds Institute of Canada.

By the end of 2000, there were 21 SRI mutual funds available in Canada, representing $5.9 billion in assets or 1.4% of the mutual fund market in Canada. Currently, there are more than 40 SRI mutual funds available, with more than $4 billion in assets, representing more than 1% of the market. Between 1989 and the end of October 2001, SRI mutual funds grew at about four times the pace than the industry overall.

Canadian market is a very advanced one. Canadian investors, in fact, are interested not only on the SR funds but also on other SR instruments.

Institutional investors are very interested in their shareholders' rights and fill many social and environmental resolutions.

These actions are often undertaken in cooperation with investors, labour and civil society organizations in other countries as part of a growing co-ordinated international movement. Every year, more institutional investors bring forward shareholder resolutions on important corporate governance and corporate responsibility issues, such as excessive stock option plans or compliance with international labour standards[28].

The Social Investment Organisation (SIO) estimates that total assets managed according to social responsibility guidelines as of June 2002 are 51.4 billion

[27] Research available on www.jantziresearch.com

[28] See www.share.ca

dollars. This sum represents 3,3% of the retail mutual fund market and the institutional investment market.

The total investment can be shared as follows[29]:

Table 2.5

Summary of Social Investment Assets in Canada ($billions)
Canadian Social Investment Review, 2002

	2000	2002
Asset Managers	11.300	16.730
Retail Investment Funds	10.350	9.940
Institutions	27.200	24.100
Shareholder Advocacy	1.000	0.453
Community Investment	0.085	0.069
Socially Responsible Lending	NA	0.127
Total	49.935	51.419

Source: Canadian Social Investment Review

As from the table above, 16,73 billion dollars are subject to social and environmental screens. Most of this money comes from four main institutional clients such as:

- Pension plans
- Religious institutions
- Public institutions as universities and hospitals
- Foundations

The research shows also interesting features about the criteria commonly used to screen the investments, as we can see in the table below.

[29] Social Investment Organisation, "*Canadian Social Investment review 2002*", disponibile sul sito www.socialinvestment.ca

Table 2.6 Percentage of screened assets managed by investment management companies under various screens

	2000	2002
Tobacco	83	79
Environment	64	55
Alcohol	63	66
Military	62	68
Employee relations	60	42
Human rights	48	46
Nuclear power	47	38
Gambling	41	49
Diversity	36	32
Aboriginal	20	17
Animal rights	6	8
Other	N/A	23

note: percentages do not add to 100 because companies screen on more than one issue

Source: Canadian Social Investment Review 2003

The most popular screen contained in funds or segregated account is tobacco. However, the data shows that a large percentage of the screened assets also include other screen, such as the environmental, military, human rights, employee relations and nuclear power.

The research focuses also on shareholders' advocacy, even if the measuring of this variable is very difficult; the quantity is computed trying to estimate the value of shareholder advocacy initiatives on social and environmental issues.

As for community investments, an estimated 69 million dollars is invested in locally based community investment organisations, mainly active on micro-loan fund.

2.3 US market

According to the researches by US Social Investment Forum, more than one out of every nine dollars under professional management in the United States today is involved in socially responsible investing. The \$2.16 trillion managed by major investing institutions, including pension funds, mutual fund families, foundations, religious organizations, and community development financial institutions, has remained stable, accounting for 11.3 percent of the total \$19.2 trillion in investment assets under professional management in the United States, nearly equal to 2001[30].

Total assets under management in portfolios counted by the SIF report employing one or more social screens rose seven percent between 2001 and 2003, while the broader universe of all professionally managed portfolios fell four percent during the same time period. A total of \$2.14 trillion in socially screened portfolios was identified, up from the \$2.01 trillion reported in 2001. Of the \$2.14 trillion in socially screened portfolios, \$1.99 trillion are found in separate accounts (portfolios privately managed for individuals and institutions) and \$151 billion reside in mutual funds.

From 1995 to 2003, assets involved in social investing, through screening of retail and institutional funds, shareholder advocacy, and community investing, have grown 40 percent faster than all professionally managed investment assets in the U.S. Investment portfolios involved in SRI grew by more than 240 percent from 1995 to 2003, compared with the 174 percent growth of the overall universe of assets under professional management over the same time period.

Socially responsible investing in the US incorporates three dynamic strategies that work together to promote socially and environmentally responsible business practices. These strategies are:

- Screening
- Shareholders' advocacy

[30] Social Investment Forum, "*2003 Report on Socially Responsible Investing Trends in the United States*", Dec. 2003.

- Community investing

We can look at the following tables to have an idea of the US market with reference to these practices.

Table 2.7

SUMMARY OF SOCIALLY RESPONSIBLE INVESTING IN THE U.S.

Socially responsible investing embraces three strategies: screening, shareholder advocacy, and community investing.

	1997 ($billions)	1999 ($billions)	2001 ($billions)	2003 ($billions)
Total Screening	$529	$1,497	$2,010	$2,143
Total Shareholder Advocacy	$736	$922	$897	$448
Both Screening and Shareholder *	($84)	($265)	($592)	($441)
Community Investing	$4	$5	$7.6	$14
Total	$1,185	$2,159	$2,320	$2,164

* *Some social investment portfolios conduct both screening and shareholder advocacy. These assets are subtracted out of the total to avoid double counting.*

Source: Social Investment Forum

As we can see the screening is the most commonly used strategy, even if shareholders' advocacy represents an important part of the SR world.

Socially responsible mutual funds are available to investors through several routes. Shares in screened mutual funds are available directly to individuals, through variable annuities, or to institutional investors, such as labor pension funds.

From 2001 to 2003, the number of socially responsible mutual funds increased substantially, creating more diversified options for investors seeking screened portfolios. The number of mutual funds utilizing social investment criteria rose by nearly 11 percent to 200 funds in 2003, up from 181 funds in 2001. This includes growth in new funds created in 2001 or 2002, as well as funds not captured in the 2001 Report.

Assets in socially screened mutual funds identified by this Report grew by 11 percent, to $151 billion, an increase over the $136 billion reported in 2001.

It can be interesting to analyse also the most used portfolio screens in the US, as in the table below.

Table 2.8 Mutual fund screen types

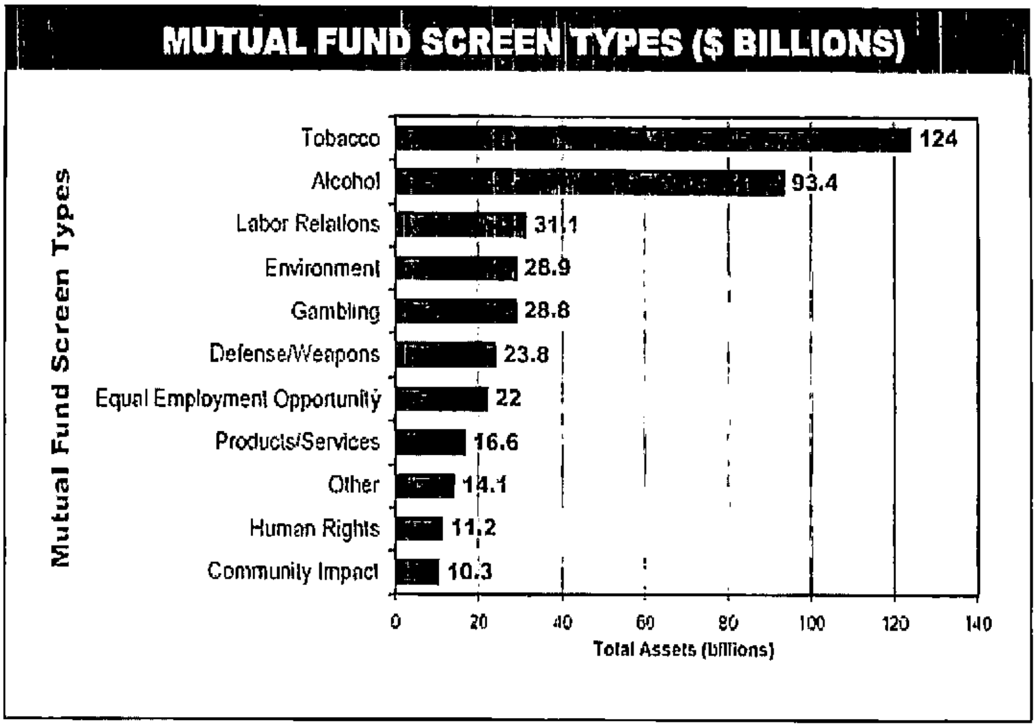
MUTUAL FUND SCREEN TYPES	
1. Tobacco	$124 billion
2. Alcohol	$93.4 billion
3. Labor Relations	$31.1 billion
4. Environment	$28.9 billion
5. Gambling	$28.8 billion

Source: Social Investment Forum

Based on a direct survey of the entire universe of 200 socially screened mutual funds in the United States, the Social Investment Forum finds that tobacco is the most broadly used screen, applied to $124 billion in invested assets, over 80 percent of the total socially screened mutual fund universe. Alcohol is also a broadly used screen, employed by over half of the total assets in socially screened mutual funds. Labor Relations, Environment, Gambling, and Defense/Weapons are commonly used screens, applied by approximately 20 percent of total socially screened mutual fund assets.

Equal Employment Opportunity, Beneficial Products and Services, Human Rights, and Community Impact are specialty use screens, employed by less that 15 percent of total screened mutual fund assets.

Table 2.9



Source: Social Investment Forum

The screens are the commonly known ones, but we can make some further additional considerations about the specialty screens. In some cases these screens are so specifically directed that create a sub-definition of SR fund. We can focus on this point looking at the investment policies of Ave Maria mutual funds, a family of funds that promote Catholic values through *morally* responsible investing. This fund screens abortion, pornography, non-marital partner benefits and planned parenthood[31]. So, while most people associate SRI with progressive environmental and social beliefs, the movement's foundation in ethics-based criteria means that the SRI umbrella also covers more conservative ideologies. Whilst some SRI have, indeed, positive screens for companies that have favourable employment practices towards homosexuals, this fund operates from

[31] Baue W., "*Ave Maria funds promote Catholic values through morally responsible investing*", 12 Sept. 2003, social funds news alert, www.socialfunds.com.

the opposite end of the spectrum, screening out companies that offer non-marital partner benefits, regardless of whether they are same or opposite-sex partners[32]. This conservative fund is just one of a number of investment vehicles reflecting a specific religious dogma: some funds claims to be Catholic, some are Islamic-based.

The data reported show that shareholder advocacy continues to be an active force into the US. The shareholders' resolutions provide a formal communication channel between shareholders, management and the board of the company on issue of corporate governance and social responsibility. In many cases shareholders do not even need to formally introduce a resolution for their concern to have an impact: often, indeed, management agrees to discuss issues with investors in order to avoid a formal shareholder proposal.

One fair example of the power of persuasion that advocacy groups can have is P&G, which is the largest seller of coffee products through its specialty coffee division, Millstone.

P&G announced that it would introduce Fair Trade Certified™ coffee products. The announcement comes in response to dialogue with shareholders about the company practices, as well as the pressures from consumers and human rights activists[33].

With P&G's announcement the advocacy groups have agreed to suspend their campaigns against the corporation and the shareholders have withdrawn the resolution they had filed on the issue.

The third strategy available to SR investors is Community Investing, that generates resources and opportunities for economically disadvantaged people in urban and rural communities in the US and abroad.

Very often these poor communities are not served by traditional financial institutions; community investments make possible, for local institutions, to

[32] Mr Schwartz, president of the advisor company, claims that "*the Catholic Advisory Board believes that marriage between a man and a woman is a sacrament instituted by God and therefore, when a company offers to put a non-marital union on par with marriage, it's a slap in the face to Catholic Church and such companies should be screened out*".

[33] News from www.socialfunds.com , Sept. 2003.

create jobs, provide financial services to low-income individuals and supply capital for small businesses, affordable housing and community services such as childcare.

We can have a comprehensive look at the community investing in the US looking at the table below.

Table 2.10 The four types of *Community Development Financial Institutions* (**CDFIs**) in the US

• **Community Development Banks (CDBs)** are a category of CDFIs with the greatest amount of assets ($7.2 billion). CDBs are located throughout the country and provide capital to rebuild many lower-income communities. For account holders, they offer services available at conventional banks, including savings and checking accounts. Like their conventional counterparts, they are federally insured. • **Community Development Loan Funds (CDLFs)** are the second largest type of CDFI, with $3.6 billion in assets. These funds operate in specific geographic areas, acting as intermediaries and pooling investments and loans provided by individuals and institutions at below-market rates to further community development. International funds, with $72 million in assets, focus their lending overseas, often providing or guaranteeing smaller loans to communities and individuals in need. CDLFs include microenterprise development loan funds and are not federally insured. • **Community Development Credit Unions (CDCUs).** With combined assets of $2.7 billion, there are over 200 membership-owned and controlled nonprofit CDCUs serving people and communities with limited access to traditional financial institutions. Account holders receive all the services available at conventional credit unions, and their accounts are federally insured. • **Community Development Venture Capital Funds (CDVCs)** use the tools of venture capital to create good jobs, entrepreneurial capacity, and wealth, thus improving the livelihoods of low-income individuals and the economies of distressed communities. With assets of $485 million, CDVC funds make equity and equity-like investments in highly competitive small businesses that hold the promise of rapid growth. The investments typically range from $100,000 to $1million, much smaller than most traditional venture capital investments. The companies in which CDVC funds invest generally employ between 10 and 100 people. ***Source: Social Investment Forum, 2003***

2.4 Asian market

The SR Asian market is very young and has not yet reached sensible volumes in terms of investments.

Notwithstanding, SR approach represents a challenging opportunity for Asian markets, due the peculiar state of the Asian economies.

China, India, Taiwan have very fast growing economies and such an impetuous economic development have created a number of serious problems in terms of labour practices, childhood exploitation and spoiling of environmental resources.

The development of a SR sensibility is then fundamental for a safe economic development of the area in terms of sustainability.

Japan is the most developed market in Asia but we have not official data to rely on. According to some web press releases[34], there exist 12 SR Funds in Japan, managing about 71 million YEN. Eight of them are *green funds* and this last information gives us an idea of the Japanese investors' concerns about environment and sustainability.

From a cultural point of view the religion and the habits of Japan are imbued with love towards nature and it is reflected into their investment choices.

To explain the "green bias" we should mention a painful event in the Japanese history. The Chisso Corporation was once a fertilizer and carbicle company, and gradually advanced to a petrochemical and plastic-maker company. From 1932 to 1968, Chisso Corporation, a company located in Kumamoto Japan, dumped an estimated 27 tons of mercury compounds into Minamata. When Chisso Corporation dumped this massive amount of mercury into the bay, thousands of people whose normal diet included fish from the bay, unexpectedly developed symptoms of methyl mercury poisoning. The illness became known as the "Minamata Disease". The mercury poisoning resulted from years of environmental destruction and neglect from Chisso Corporation.

The effects of mercury were dreadful, mainly on new born babies; reports and photos were terrible to bear and Japanese were strongly shocked.

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[34] www.asria.org

2.5 Australian market

Australian market is very young if compared to west countries' market but is growing at fast pace and SR are gathering a strong interest.

The Australian economy is founded on environmental and subsoil resources, mainly mining sector. This specialty is reflected into the concerns and the screens of the SRI; they are, indeed, actively involved in the respect of all labour and safety standards in the mines and equal employment practices towards autochthonous workers. Many funds are also involved into advocacy against the uranium mines, for the military use of this metal.

According to researches by Ethical Investment Association (EIA)[35], nearly all forms of socially responsible investment (SRI) in Australia continued to grow dramatically over the past year, rising to at least $21.5 billion by 30 June 2004. The total of all areas of SRI except shareholder resolutions grew by 26% overall in the past year.

The $21.5 billion in socially responsible investment assets identified by EIA study include:

- $3.3 billion managed SRI funds
- $168 million private SRI portfolios managed by financial advisers
- $7.2 billion investments by religious organisations
- $327 million invested by charitable trusts using SRI criteria
- $7.2 billion employer superannuation funds using SRI overlays
- $322 million community finance investment
- $3 billion shareholder resolutions on environmental and social issues

No formal survey has been made for SRI in New Zealand, but investment in the four major ethical investment funds available through New Zealand-based organisations totals $19.3 million.

[35] www.eia.org.au

3. Literature review

The link between financial investments and ethical concerns was first analysed in the mid '80s in response to the so called *South Africa divestment*. In reaction to the apartheid policies of the South African government, a number of public and private retirement funds had decided to divest their portfolios of stocks of companies that had businesses in South Africa. The States of Massachusetts, Connecticut and Nebraska, N.Y. City, Philadelphia and Washington imposed restrictions on their pension fund portfolios to avoid South Africa related businesses[36].

The decision had been very controversial and many portfolio managers had fiercely condemned the decision since, in their view, the divestment had potentially serious implications for the investment policies and practices of large funds. Professional managers claimed that it was impossible to impose such restriction on portfolios without reducing investments opportunities and, ultimately. investment results.

Some researchers were against the investment strategies that excluded South Africa related businesses. Ennis and Parkill[37] (1986) considered the divestment as a *folly*. They claimed that to pursue a policy of divestment with fiduciary funds is to ignore the exclusive purpose and diversification mandates of trust stewardship. Trustees may be held personally liable for additional cost and investment losses arising from divestment actions. Although trustees make the decision to divest, investment managers are the ones who generally implement it. Furthermore, as divestment could damage portfolio performance, it poses an ethical dilemma for investment professionals, who must choose whether to comply with or resist divestment directives. According to their investigations, statistical analysis confirmed the financial theory: divestment leaded to the

[36] Wagner W., Emkin A. and Dixon R., "*South African Divestment: the Investment Issue*", Financial Analysts Journal, Nov-Dec 1984, p.14

[37] Ennis R.M. and Parkill R.L., "*South Africa divestment: social responsibility or fiduciary folly?*", Financial Analysts Journal, July-Aug 1986, p.30.

concentration of investment portfolios and introduced a risk of failing to earn the rate of return on an unconstrained portfolio.

In this ongoing debate, Grossman and Sharpe[38](1986) tried to understand if the concerns were well posed and to what extent the exclusion of South Africa related stocks could hurt the performance of the portfolios. In their paper, they compared a universe comprising all NYSE stocks with a South Africa-free (SAF) universe including only NYSE stocks not shown on the "black lists".

Their results showed that the two universes had similar beta values, which suggests that divestment did not significantly affect systematic risk.

The two universes were, instead, completely different in terms of size. The divested SAF universe consisted of companies whose market capitalisation was significantly smaller than those of the total universe. The largest US firms tended to have operations in South Africa; the average SAF firm was nearly 30% smaller than the average NYSE firm.

The findings on the performance and size of the two portfolios are very interesting; over a period ranging from 1959 to the end of 1983, the SAF portfolio would have outperformed the NYSE. The SAF portfolio tracked the NYSE closely while achieving its higher return. Having identified overperformance they analysed the determinants of historical performance. Analysis of the factors contributing to the SAF portfolio's return indicated that the exclusion of South Africa-related stocks hurt portfolio performance while the small stock bias of the SAF strategy greatly increased portfolio return.

In terms of the size, the SAF portfolios tended to exclude the biggest corporations which, being well diversified from a geographic and industrial perspective, had typically a business partnership or operations in South Africa. Under a sector point of view, the SAF universe was underweighted in technological capital goods and consumer growth stocks and overweighted in finance and utility stocks.

[38] Grossman B. and Sharpe W., "*Financial implications of South Africa Divestment*", Financial Analysts Journal, July-Aug 1986, p.15.

These insights are not trivial; if we look at this SAF portfolio, indeed, we can highlight two characteristics linked one with the other. SAF portfolios were biased in terms of size, since the average SAF firm was smaller than the average NYSE firm. The universe components, combined with the *small firm effect* [Banz[39] (1981), Reinganum[40] (1981)], determined the better SAF performance.

The South Africa divestment was linked to a specific issue debated in the United States and was the first time, as far as we know, that a portfolio was composed taking into account characteristics different from financial variables. For the first time in asset management, investors asked for something different and the variable that made this difference was something about *emotions, human rights*.

In orthodox financial language, a non financial constraint had been imposed to the maximisation process.

In this new field, then, we should not be surprised to discover that in the same period of South Africa divestment, the first *ethical* funds were born in the US and in the UK.

Since acceptance of a responsibility different from maximising profits may impose a burden on returns, as emphatically argued by Milton Friedman (Friedman, 1962)[41], many researchers, starting from the '90s, have focused their research interest on performances.

Some have started to address the issue of *ethical* or *socially responsible* investments in terms of performance comparison between SRI funds and conventional ones.

Analysis of the performance is very interesting, since, from a portfolio theory point of view, as soon as we restrict the menu of assets the portfolio managers can choose among, we are likely to endanger the performance of the portfolio, due to a lack of diversification.

[39] Banz R.W., "*The relationship between return and market value of common stocks*", Journal of Financial Economics, 9 (1981), 3-18

[40] Reinganum R.M., "*Misspecification of Capital Asset Pricing: empirical anomalies based on earning yield and market value*", Journal of Financial Economics, 9 (1981), 19-46.

[41] Friedman, M. "*Captialism and Freedom*", Chicago: Chicago University Press, 1962

For this reason, most of the researches have tried to understand if these SRI funds underperform relatively to common funds because of less diversification and/or sector exclusion or if, instead, they do overperform because the SR companies they invest in are better managed.

Luther, Matatko and Corner (1992)[42] focused their analysis on 15 British ethical funds, investigating their performance and the potential size effect associated with performances. The time period considered varied from 13 to 72 months. Performance was calculated through a market model, using monthly returns on the FT All-Share Index and the MSCI World index. They didn't find clear evidence of over/under performance relative to benchmark indices. They verified, instead, clear evidence of a small firm bias in the portfolio.

On the other side of the ocean, Hamilton, Jo and Statman (1993)[43] have focused on 17 US SRI funds. The fund portfolio was split into two groups according to the fund age. Their results indicate that the market did not price social responsibility characteristics. Socially responsible mutual funds did not earn statistically significant excess return and the performance of such mutual funds is not statistically different from the performance of conventional mutual funds.

In their paper, Mallin, Saadouni and Briston (1995)[44] compared, on a one-to-one basis, funds marketed as ethical and non ethical funds paired on the basis of fund size and the inception date. In their case the ethical trusts tended to outperform the non ethical. However, the result cannot be considered very reliable, since the matching characteristics were too general to allow a sound comparison. They did not consider, in fact, variables like style, benchmark and other investment characteristics, but just fund size and date of injection. Furthermore, they did not control for the size bias in the ethical portfolios.

[42] Luther R., Matatko J. and Corner D., "*The Investment Performance of UK Ethical Unit Trust*", Accounting Auditing & Accountability Journal, Vol. 5 No. 4, 1992, pag. 57-70.

[43] Hamilton S., Jo H. and Statman M., "*Doing Well While Doing Good? The Investment Performance of Socially Responsible Mutual Funds*", Financial Analysts Journal, Nov/Dec 1993.

[44] Mallin C. A., Saadouni B. and Briston R.J., "*The Financial Performance of Ethical Investment Funds*", Journal of Business Finance and Accounting, 22(4), June 1995.

Gregory, Matatko and Luther (1997)[45] tried to overcome the Mallin, Saadouni and Briston's drawbacks using a size adjusted benchmark to analyse the performance of the ethical funds. The first part of their analysis is based on a sample of 18 matched pairs of UK funds. Most of ethical funds showed a negative Jensen's measure, but just two values were statistically significant. In the second part, they investigated the excess return of a wider universe of 108 unit trusts on their age, fund size and ethical characteristics. In general the results suggested that these variables, with the exception of the variable *youth*, are not able to explain the performance. They performed a further test to verify whether the returns of ethical and non ethical trusts were different and whether or not exposure to the small firm effect differed between trusts. Also in this case the ethicals were skewed towards small firms and, additionally, the small firm effect played an important role in explaining time series and cross sectional returns of UK unit trusts.

In a recent paper, Bauer, Koedijk and Otten (2002)[46], focused on performance and investment style using an international database containing 103 ethical mutual funds (32 from UK, 16 from Germany and 55 from US). They used a Carhart (1997) 4 factors model in their investigation. According to their findings, German and US SRI funds under performed their relevant indices, whereas UK funds slightly outperformed. All the differences seemed not to be significant. Apparently, SRI funds had investment styles slightly different from conventional funds, since they exhibited significant less market exposure. In their analysis, SRI funds were more growth oriented than value oriented.

[45] Gregory A., Matatko J. and Luther R., "*Ethical Unit Trust Financial Performance: Company Effects and Fund Size Effect*", Journal of Business Finance and Accounting, 24(5), June 1997.
[46] Bauer R., Koedijk K., Otten R., "*International evidence on ethical mutual fund performance and investment style*", Limburg Institute of Financial Economics, University of Maastricht Working Paper no 02.59, 2002.

3.1 Literature general findings: some considerations

Summarising the findings of the researches, empirical evidence appears to suggest that SRI funds and conventional funds have a similar performance in terms of financial returns.

From a statistical point of view the differences, where existing, are not significant. In spite of different techniques used by different authors (from simple one-factor models to four-factor models with time-varying coefficients) the results are quite similar.

For this reason, the hypothesis of SRI funds' underperformance due to a lack of diversification can be rejected; however, SRI funds do not add value in terms of performance. The similarity in performance could be viewed as an apparent drawback of the MV theory. According to this theory, indeed, as soon as we restrict the menu of activities in our portfolio, we reduce the portfolio diversification and possibly, its performance; following this reasoning, SRI funds should be worse performers. We can try to explain this drawback focusing our attention on the maximum diversification reachable by a portfolio. Whitmore (1970)[47] and Solnik (1975)[48] claimed that the effectiveness of diversification in reducing the risk of a portfolio varies from country to country. In a relatively large portfolio the benefits attainable by adding a further stock are small. In our context this means that, if our portfolio is diversified enough, the exclusion of a certain number of stocks is not able to endanger the return of the portfolio and so, SRI funds are not, necessarily, worse performers.

In addition, in the first period of their existence, SRI funds were invested, mainly, using *in-out* criteria[49]. This approach, if strictly applied, could shrink the investment universe. During the years, the divestment approach has been substituted by a more cooperative approach of engagement and discussion and this has given the opportunity to include in the portfolios stocks belonging to the

[47] Whitmore G.A., "*Diversification and the reduction of dispersion: a note*", Journal of financial and quantitative analysis, V, No.2 (May 1970), pp.263-264

[48] Solnik B., "The *advantages of domestic and international diversification*", in Elton and Gruber, *International Capital markets*, Amsterdam, North Holland, 1975.

[49] See paragraph 1.3.1 for SRI funds' investment strategies classification.

grey areas and sectors. Nowadays, the best in class approach allows the portfolio manager to perform a SRI stock picking that does not reduce the investment opportunities and this could be an additional explanation for similar performance among SRI and conventional universe.

Furthermore, it can be worth to highlight that, in our opinion, the attempt to measure the SRI performance taking into account a unique universe is biased in the same foundation. The definition of SRI, or Ethical, is auto referential and the SRI tree includes many different funds with completely different investment approach.

The existence of several different benchmarks (i.e. FTSE4good ex-alcohol, FTSE4good ex-armaments) is the clear proof of the existence of several small universes of SRI. Each investment house has its own *home made* SRI funds and these funds cannot be measured with their own peers. For this reason making a pot of SRI funds and measuring them with more homogeneous peers in conventional funds has, in our view, a bias we cannot overcome.

Summarising, the similar performance among SRI funds and their conventional peers can derive both from the difficulties in creating and measuring a correct universe and, additionally, from the new investment strategies that largely reduce the risk of ineffective diversification.

4. Purpose of this research

Notwithstanding the increasing volumes of assets under management and the number of new SRI funds that have been launched on the market in the past years, in the investors' view, SRI funds are not yet identified as good substitutes of conventional funds. SRI funds represent a recent form of investment and the investors are still in doubt about their characteristics. According to Sparkes[50], investors very often decide to invest a small part of their portfolio in SRI and the remaining percentage in conventional investments. In this way, they ultimately treat SRI funds as an *asset class* different from conventional funds. According to the literature shown, this is not necessarily correct since, in terms of risk return profile, SRI funds could be considered as comparable as their conventional peers. When treating them as a different asset class, then, investors ultimately increase the exposition to the same risk factors. We will try to detail how SRI behave in terms of strategy to help investors to correctly evaluate SRI funds.

The purpose of our research will be then:

- To identify, if existent, a style bias in terms of size exposure and investment style (growth and value). This information would allow investors to correctly evaluate SRI funds in their global asset allocation.
- To compare the SRI funds with relevant benchmarks to verify if an active management based on specific research about sustainability can add value from a retail investor perspective[51]. Furthermore, this comparison will allow us to test if, as in the conventional funds case, SRI funds underperform their benchmarks.

In terms of geographical scope, the research focuses only on Continental European markets that have not yet been investigated[52].

[50] Sparkes, R., p.84.

[51] Many portfolio managers base their investment universe on SRI benchmarks or on SRI stock list compiled by well known organisations. This kind of research is focused mainly on sustainability.

[52] Bauer R., Koedijk K., Otten R. have analysed UK, US and German market, but no other European countries.

The research is developed in two separate parts: the first one deals with a performance assessment relatively to geographical benchmarks; the second part focuses on a style analysis performed through a model à la Fama e French (1993).

In the first part of this work performances are investigated via a comparison among SRI funds and some geographical benchmarks, including both SRI and conventional indices. Starting from the assumption that conventional funds generally underperform their benchmarks (Gruber, 1996)[53], we test if this underperformance is verified also in SRI industry. For this first test a database including European equity funds, Euro equity funds and Global Equity funds has been used and a geographical comparison performed.

In the second part of the research, adopting a model a' la Fama and French (1992)[54], we investigate the behavioural pattern of the investment strategy with reference to small/large and growth/value investment decisions. F&F identify five common risk factors in the returns on stocks and bonds. Since our analysis is focused on equity funds, we concentrate on stock market factors, relative to size (SIZE) and Book-to-market equity (BE/ME). As we will see in detail in the methodology chapter, we build these factors starting from the stocks belonging to the S&P 350 Europe.

Since the factors are based on European data, the analysis refers only to European Equity and Euro Equity funds, excluding all Global Equity funds.

[53] Gruber M., "*Another Puzzle: The Growth in Actively Managed Mutual Funds*", Journal of Finance, July 1996.

[54] Fama E. and French K., "*Common risk factors in stock and bond returns*", Journal of Financial Economics, 33 (1993), 3-56 North Holland.

4.1 Data

The initial database was based on public information about SRI funds in Europe (available on www.sricompass.org) and was updated up to 31 December 2001. In addition, we used a more recent fund selection toolkit, powered by Morningstar and created by Avanzi SRI research, SiRi Group and Eurosif[55]. This fund selector is updated on a daily basis.

These websites are the results of a collective research carried out by organisations belonging to the Sustainable Investment Research International (SiRi) Group, a world-wide coalition of local research organisations in the field of socially responsible investing.

According to the SiRi Group methodology, the funds considered in these databases:

1. Use ethical, social and environmental screens for portfolio selection
2. Are marketed as socially responsible investment products
3. Are available to the public (retail funds)

Therefore the research did not take into account:

- Funds that simply donate a part of commissions or profits to charitable or other "good" causes
- Funds specialising only in investing in environmental technologies or the environmental industry (waste management, water treatment)
- Funds and other investment products available only to institutional investors

We have investigated only the equity funds in the database, since the bond funds industry has different characteristics. For example, bond fund selection is based upon country exclusion, and, in addition, the assessment of the performance and its attribution is quite different from the equity funds' case.

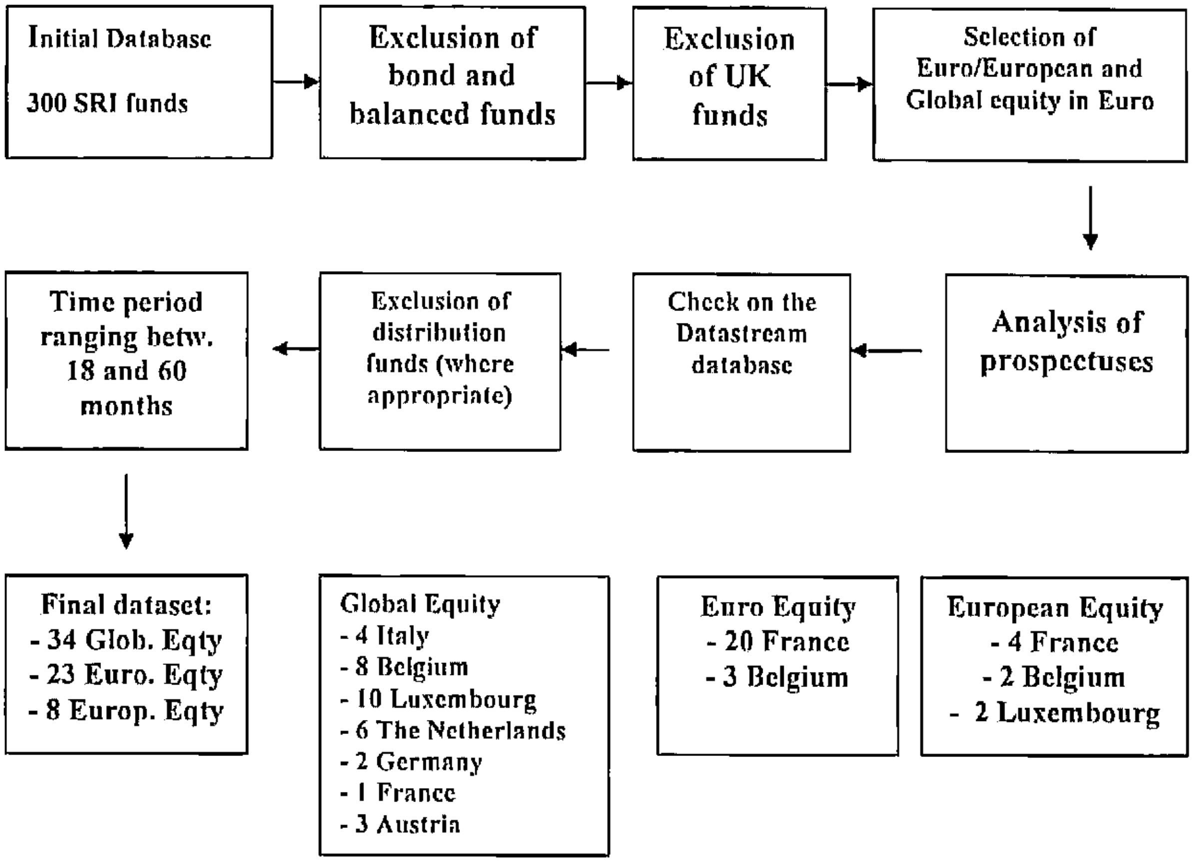
[55] The fund selector is freely available on http://www.eurosif.org/pub2/fundselect/

The initial database included funds domiciled in all European continental countries (Euroland plus Switzerland and Sweden).
In terms of investment geographical scope, the database under analysis included European, Euro and Global equity funds denominated in Euro.
Funds investing in domestic markets (like Swedish funds, some French funds and most of the Swiss funds) have been excluded. After matching the Sricompass and Morningstar database, investment houses have been requested to provide the funds' prospectuses for those funds that we judged having insufficient information.
Based on these detailed analyses, some funds that invested exclusively in green technologies or that represented guaranteed funds or pension funds have been excluded. Inconsistencies in names between the SiRi Group/Morningstar database and Datastream implied the exclusion of some funds like, for instance, all Swedish funds.
Final dataset has been obtained through the following steps.
Firstly, only funds with at least 18 monthly data on a time period ranging from June 1996 to the end of June 2004 were included.
Secondly, funds in the database were

- capitalisation funds
- distribution funds whose launch dates were different from their correspondent capitalisation funds

Through these screenings, starting from a number of 300 SRI funds we finally got 34 Global equity funds, 23 Euro equity funds, 8 European equity funds.
The analysis was then performed on a total of 66 SRI equity funds, covering Belgium, The Netherlands, Italy, France, Germany, Switzerland, Luxembourg.
The whole process is summarised in the table below.
As shown by the table, French funds are the most popular in the Euro and European equity case, whilst, for the Global equity case, funds are less concentrated and domiciled in several European countries.

Table 4.1



4.2 The research methodology

The research is divided into two separate parts.

The first part focuses on benchmark and performance comparison. The second part, instead, deals with a style analysis using a model à la Fama and French.

Benchmark comparison

Through the use of a common CAPM based single factor model we address the topic of performance. We compare SRI funds and their relevant benchmarks, including both SRI and conventional indices.

Formally:

$$1)\ R_{it}-Rf_t = \alpha_i + \beta_i[RM_t-Rf_t] + e_{it}$$

Where R_{it} is the monthly total return on fund *i* during month t.

Rf is a market proxy for risk free return. Before introduction of the Euro we used German Fibor 1 month as a reliable proxy of the Euro market. After the introduction of the single currency we used the Euribor 1 month. Rf_t is then the risk free return during month t.

RM is the market return. As shown in the table 4.2 several indices have been used as market proxy. According to the geographical strategy of the fund (Global equity, Euro or European Equity), relevant indices, including SRI and conventional indices were included in the analysis. RM_t is the market return during month t.

All return figures (total return) but one have been collected from the Datastream database and are then comparable.

DJSI (Dow Jones Sustainability Index), in the Global equity case, was not available in the Database. Dow Jones provided the relevant figures (Total Return).

A specific *caveat* should be mentioned with reference to total return data about benchmarks and funds. Benchmarks figures are gross whilst SRI funds figures include dividends reinvested but are net of expenses.

Table 4.2 Fund geographical scope and relevant benchmarks used in the analysis

FUND GEOGRAPHICAL SCOPE	SRI BENCHMARK	CONVENTIONAL BENCHMARK
Global Equity	-E.Capital Ethical Global - DJSI World	- FTSE World
Euro Equity	- E.Capital Ethical Euro - ASPI Eurozone	- FTSE Local Eurobloc - S&P Euro - MSCI Euro
European Equity	- FTSE4Good Europe	- FTSE Local Europe - S&P 350 Europe

Some of the relevant characteristics of the SRI benchmarks under analysis are shown in tables from 4.3 to 4.6.

Table 4.3 FTSE Index Series

The FTSE4Good Index Series has been designed to measure the performance of companies that meet globally recognised corporate responsibility standards, and to facilitate investment in those companies.

Company Assessment Process

To qualify for inclusion in the FTSE4Good Index Series, companies must be in one of the following
starting universes: the FTSE-All Share Index (UK), or FTSE All-World Developed Index (Global).

For inclusion, eligible companies must meet criteria requirements in three areas:

- Working towards environmental sustainability
- Developing positive relationships with stakeholders
- Up-holding and supporting universal human rights

Excluded Companies

Companies that have been identified as having business interests in the following industries are excluded
from the FTSE4Good Index Series:

- Tobacco Producers
- Companies manufacturing either parts for, or whole, nuclear weapons systems
- Owners or operators of nuclear power stations
- Companies involved in the extraction or processing of uranium

Source: FTSE

Table 4.4 Dow Jones Sustainability World Index (DJSI World)

The benchmark is based on economic, environmental and social criteria.
DJSI captures the leading 10% in terms of sustainability out of the biggest 2'500 companies in the Dow Jones Global Index. The identification of sustainability leaders for the Dow Jones Sustainability Indexes is based on the Corporate Sustainability Assessment of SAM Research.

A defined set of criteria and weightings is used to assess the opportunities and risks deriving from economic, environmental and social developments for the eligible companies.
In particular, economic criteria include:

- Corruption and bribery
- Corporate governance
- Investor relation

Environment criteria include:

- Environmental policy and management
- Eco-efficiency
- Environmental reporting

Social criteria include:

- Corporate citizenship/Philanthropy
- Human capital development
- Labour practise indicators
- Stakeholders engagement

A major source of information is the SAM questionnaire which is completed by companies participating in the annual review. Further sources include company and third-party documents as well as personal contacts between the analysts and companies.
The external verification by PricewaterhouseCoopers ensures that the corporate sustainability assessments are completed in accordance with the defined rules.

Source: Dow Jones

Table 4.5 E.capital Partners benchmarks

Through the patented Ethical Screening Methodology® it is possible to obtain E. Capital Partners' SRI eligible universe and the Ethical Rating for each asset class. As for **quoted companies (Equity and Corporate Bond)**, the Ethical Screening Process consists in three steps:

- **Negative criteria for the negative screening**
  - Tobacco
  - Military/Defence
  - Alcohol
  - Gambling
  - Pornography
  - Nuclear
- **Positive criteria** for the Positive screening
  - Products
  - Environment
  - Communities
  - Diversity
  - Employees
  - Cross border operation
  - Transparency
  - Corporate Governance

The process can be summarised in the following figure:

Source: E.capital Partners

Table 4.6 ASPI Eurozone

The ASPI Eurozone® (Advanced Sustainable Performance Indices) family of indexes track the financial performance of 120 leading Eurozone sustainability performers (from the DJ EURO STOXXSM benchmark financial universe). The ASPI utilise Vigeo's rating system, which centres on a positive approach to sustainability and SRI. In particular, the approaches followed are:

- **A Triple Bottom Line Perspective:** the ASPI are committed to the promotion of the increasingly accepted "triple bottom line" definition of corporate sustainability whereby social, environmental and financial performance are seen as equal and interdependent to the promotion of long term shareholder value.
- **A Positive Screening Approach:** the ASPI are rooted in a positive approach towards corporate sustainability. As such, companies are selected for inclusion solely on the basis of positive screening.
- **Risk management:** the ASPI do not seek to exclude any company as a result of its involvement in any specific activity (i.e. negative or exclusionary screening). However, the nature and management of any existing or potential risks associated with such involvement will play an important role in VIGEO's rating of such a company.
- **A Stakeholder-Centred Approach:** in practice, a company selected for the ASPI will be one which continuously demonstrates and proves its commitment to sustainability issues by systematically integrating the long term interests of its stakeholders into company policy, strategy, behaviour and practice.

Companies are selected for inclusion in the ASPI Eurozone® and other ASPI indices on the basis of their corporate sustainability performance as assessed and rated by Vigeo.
Vigeo assesses and rates company performance on 5 widely accepted stakeholder themes (the Vigeo criteria), namely:

- Community and international civil society.
- Corporate governance
- Customers and suppliers
- Health, safety and the environment
- Human resources and international labour standards

Source: Vigeo

The performance measure used in the regression is Jensen's alpha. This measure has some drawbacks, as summarised by Grinblatt and Titman (1989)[56]. In particular Jensen's measure is based on an upwardly biased estimate of systematic risk for a market timing investment strategy. In their view, Jensen's α bears no reliable relation to its true performance because there is no appropriate benchmark portfolio with which to compute Beta; examples are provided by Roll (1978)[57].

Notwithstanding these problems, Jensen's alpha is still the most common mutual fund performance measure.

Style analysis through Fama and French model

Subsequently the behavioural pattern of the investment strategy with reference to small/large and growth/value investment decisions has been investigated. To perform a style analysis, we adopted a multifactor model a' la Fama and French[58].

The F&F's paper identifies five common risk factors in the returns on stock and bonds. There are three stock market factors: an overall market factor and factors related to firm size and book-to-market equity. There are two bond market factors, related to maturity and default risk.

We concentrated exclusively on the stock factors.

Formally, the model used is the following:

2) $R_{it}-Rf_t = \alpha_i + \gamma_{1i}[RM_t-Rf_t] + \gamma_{2i}SMB_t + \gamma_{3i}\,HML_t + e_{it}$

[56] Grinblatt M. and Titman S., "*Portfolio performance evaluation: old issues and new insights*", The Review of Financial Studies, Vol. 2, No. 3 (1989), pag. 393-421

[57] Roll R., "*Ambiguity when performance is measured by the security market line*", The Journal of finance, 33, 1978, 1051-1069.

[58] Fama E. and French K., op.cit.

Monthly returns on SRI funds are regressed on the returns of a market portfolio of stocks (in our case the S&P 350 Europe) and to mimicking portfolios for size (SMB-small minus big) and Book-to-market equity (HML-high minus low).
The time series regression slopes are factor loadings that have a straightforward interpretation as style bias sensitivities for funds.
In this case the coefficient assigned to α cannot be considered as a straightforward α à la Jensen. In this multifactor analysis, α is able to collect the "*systematic*" characteristics of the investment strategy not captured by the other three regressors.
SMB (small minus big) represents the difference in return between a small cap portfolio and a large cap portfolio at time t. The coefficient associated to the SMB regressor gives the opportunity to document the exposition of the funds to a small/big stock bias.
HML (high minus low) represents the difference in return between a portfolio of high book to market and a low book to market at time t. The coefficient associated to this regressor gives the possibility to document a growth/value bias in the investment process.
RM is the proxy for the market factor. In our case this market proxy is the S&P 350 Europe.
Rf is the proxy for a risk free return on Euro. We used the Euribor 1 month.
Using funds' returns, we are able to interpret this multifactor model as a performance attribution tool; the coefficients on the factor mimicking portfolios show the proportion of return that can be attributed to different biases in strategies.
In our model, γ_1 gives us a measure of market exposure, γ_2 shows us <u>if and to what extent</u> there is a size exposure in the fund strategy, γ_3 shows us <u>if and to what extent</u> there is a style exposure (growth/value) in the fund strategy

So: $\gamma_2>0 \rightarrow$ SMALL CAP exposure

$\gamma_2<0 \rightarrow$ LARGE CAP exposure

$\gamma_3 > 0 \rightarrow$ Value stocks exposure

$\gamma_3 < 0 \rightarrow$ Growth stocks exposure

Note: High BTMV → Value stocks
Low BTMV → Growth stocks

In order to build the regressors we have used the F&F methodology with some particular adjustments due to European markets and to our research purpose. In the following, coefficients' construction will be detailed.

1st step: PORTFOLIOS

To build the coefficients for the multifactor regression we needed a universe of stocks. F&F build their model on NYSE, Amex and NASDAQ stocks. In this case, instead, the S&P 350 Europe constituents list was used. This index is a good benchmark for Europe. It covers approximately 70% of the region's market capitalisation, spanning 17 countries. The universe of companies comprising the top 95% of market cap of each local European exchange is eligible for index inclusion. We have built monthly coefficients for a period ranging from end of June 1996 to end of June 2004.

At the end of June of each year t all stocks are ranked according to size (market capitalisation in Euro).

Like in F&F, the median size is used to split stocks into 2 groups (BIG and SMALL).

Size > median ⟶ BIG

Size< median ⟶ SMALL

F&F break the stocks into three Book-to-market (BTM) equity groups based on the breakpoints for the bottom 30% (low-L), middle 40% (medium-M) and 30% (high-H) of the ranked BTMV for the stocks. We use the same methodology on the S&P 350 constituents list values[59]. The BTMV figures are provided by Datastream and they have been collected at the end of June of each year t (so that the value includes the balance sheet figures of the fiscal year t-1).

In this way, 3 groups of stocks according to MTBV and 2 groups of stocks according to size were created. Like in F&F, the negative BTMV stocks are excluded from the dataset. To keep an homogeneous data source, only the figures available in Datastream were collected. All stocks whose data were not available on Datastream were dropped from the sample.

After splitting stocks according to these variables, 6 portfolios have been created:

S/L S/M S/H B/L B/M B/H

by the intersection of the groups.

So, for example, the S/L portfolio includes small capitalisation stocks that are also in the low BTM group.

Once found the 6 portfolios, we calculated monthly value weighted returns on each portfolio from July t → June t+1. In June t+1 portfolios have been formed again.

[59] Official lists for S&P 350 Europe at the end of each month between June 1998 and June 2003 have been provided by S&P.

2^{nd} step: REGRESSORS

SMB (risk factor in returns related to size): first regressor

Each month from July t to June t+1 the returns simple average between the small stocks portfolios and the big stocks portfolios were calculated:

Simple average of ret. of S/L, S/M, S/H (small stock port.)
— Simple average of ret. of B/L, B/M, B/H (big stock port.)
Monthly Small Minus Big (SMB) returns

HML (risk factor in returns related to BE/ME): second regressor

Each month, from July t to June t+1, we have calculated the returns simple average between the high BTM portfolios and the low BTM portfolios:

Simple average of ret. of S/H, B/H (high btm stock port.)
— Simple average of ret. of S/L, B/L (low btm stock port.)
Monthly High Minus Low (HML) returns

In the case of HML construction process, as in F&F, we have dropped off the core 40%, the Medium BTM portfolios. We consider the extreme high 30% figures to be representative of value stocks and the smallest 30% figures to be representative of growth stocks. The "blend or "core" part of style strategy is incorporated in the middle 40% and enters our model through the market return. Some authors argue that value and growth characteristics are to be determined through a more complicated model than the F&F's one. In some cases, like in the

Morningstar methodology[60], measures like price-to-book, price-to-sale, price-to-cash flow and dividend yield are taken into consideration.

We base the analysis on the straightforward HML documented in F&F, still largely used.

To implement the F&F model, we have been compelled to make some choices.

F&F document a significant relation between firm size, book to market ratios and security returns for non financial firms. Because of their initial interest in leverage as an explanatory variable for security returns, they exclude from their analysis financial firms, thus creating a natural holdout sample on which to test the robustness of their results. Barber and Lyon (1997)[61] document that the relation between firm size, book to market ratios and security returns is similar for financial and non financial firms. Following Barber and Lyon, we have kept in the dataset all the stocks in S&P 350 Europe, thus including, unlike F&F, all financial firms.

In F&F all the NYSE stocks quotes are expressed in US Dollars; the stocks in the S&P 350, instead, are expressed in different currencies. Together with Euroland markets stocks, the index includes, indeed, stocks from Norway, Switzerland, Denmark, The United Kingdom, Sweden whose prices are expressed in their domestic currency.

Since the S&P 350 Europe is expressed in Euro, we collected Euro monthly figures for any single stocks.

As explained before, the portfolios constituents are calculated at the end of June and then the list is maintained until next rebalancing (at the end of June of the following year). Sometimes, during the year, some stocks are excluded from the index, not because of turnover but for M&A events or delisting. If we keep in the dataset all the stocks with zero performance, we bias the portfolio return downwards. For this reason, it can be correct to drop firms that don't continue into existence. In operative terms, it means to re-weight the portfolio in the

[60] Morningstar, "*Fact sheet: the Morningstar Style Box™*", 2004 available on www.morningstar.com

[61] Barber B., Lyon J.D., "*Firm size, book to market ratio and security returns: a holdout sample of financial firms*", The Journal of Finance, vol. 52, No. 2, June 1997.

month following the firm's "death", so that the weights express surviving firms. The re-weighting is equivalent to considering the "dead" firms performance to continue with the portfolio average performance.

5. Results

5.1 Benchmark comparison

As detailed in the previous chapters, we decided to compare SRI funds with relevant benchmarks to test if, from the perspective of a retail investor, an active management based on specific research about sustainability can add value with reference to benchmarks. On the whole, the answer seems to be negative as explained in the following.

1) Global equity funds

According to the results shown in the tables 5.1, 5.2, 5.3, no fund shows significant evidence of overperformance; some of them exhibit, instead, a significant negative alpha.

Our results about SRI funds are similar to the evidence about conventional funds documented in Gruber (1996)[62]. Both SRI and conventional funds underperform their relevant benchmarks.

In particular, we verify that:

- most of SRI funds, when underperforming, show a negative alpha for all the benchmarks under analysis;
- some of them, instead, underperform all benchmarks but one, the E.capital Global. This benchmark was born in 2001 and it is younger than DJSI and FTSE World. The difference could be explained by the different time horizon under analysis;
- in the case of Triodos Values fund, the significative underperformance refers exclusively to DJSI.

Roll (1978) demonstrated that α can be sensitive to the choice of the benchmark portfolio and our results go into the same direction.

[62] Gruber M., "*Another Puzzle: The Growth in Actively Managed Mutual Funds*", Journal of Finance, July 1996.

As for the β coefficients associated to the three benchmarks:

- betas are, on average, close to one, indicating a similar market risk. There is no difference in the behaviour of the Beta associated to SRI benchmarks (E.capital Ethical global and DJSI World) and to the conventional benchmark chosen (FTSE World);
- two funds, Green Effects and Okovision, show, instead, very different betas and low R-squared. Even if their strategy, as detailed in the prospectuses, is similar to other SRI funds, they are probably biased towards eco stocks, like the names suggest. Green Effect, in particular, follows the NAI Index, that consists of 20 companies from different countries and sectors, which contribute to sustainable development from the ecological and social point of view. NAI is not well diversified and invest in SMEs active on ecological issues. Apparently, for these funds, our regressions are not able to properly capture a "green effect" in the funds' characteristics;
- in the case of Luxinter Ethifund, the coefficient associated to the three benchmarks is very low, showing a completely different strategy in comparison with all other global equity fund.

In the tables 5.1, 5.2 and 5.3 results with reference to several indices are exhibited

Table 5.1

GLOBAL EQUITY FUNDS: E.capital Ethical Global

	α	β	No. Obs.	R-squared
Gestielle Etico Azionario	-0.0031929*	0.6535134*	21	0.9858
Aureo WWF Pianeta Terra	-0.0043095	0.8067111*	21	0.7665
ABN AMRO Soc. Resp. Equity Fund	-0.0057101*	1.0413*	26	0.9692
DWS Invest Sustainability Leaders LC	-0.0019563	0.9751093*	24	0.917
DWS Invest Sustainability Leaders NC	-0.0024949	0.9759794*	24	0.9196
DWS Invest Sustainability Leaders FC	-0.0010076	0.9812878*	24	0.9086
KEPLER Sustainability Aktienfonds A	-0.0033412	0.9779903*	41	0.8953
Raiffeisen-Ethik-Aktien	-0.001138	0.9451941*	25	0.8568

	α	β	No. Obs.	R-squared
Raiffeisen-Ethik-Aktien A	-0.0022648	1.005087*	19	0.8793
ABN AMRO Duurzame Wereld Fonds	-0.0064566*	1.068879*	41	0.8995
ASN Aandelenfonds	-0.0007649	1.224912*	41	0.8807
ASN Milieufonds	-0.0065363	1.233561*	35	0.7701
Athena World Equity C	-0.0019059	0.8427008*	41	0.9017
Dexia Allocation Sust. World Acc	-0.0016015	0.9290897*	38	0.8648
Meridio Green Balance	-0.0017923	1.027073*	41	0.8004
Dexia Equities L World Welfare C Acc	-0.0011646	0.9978599*	20	0.9409
Dexia Equities L World Welfare	-0.000787	0.9464769*	41	0.8776
Dexia Sustainable Accent Earth Acc	-0.0009345	0.9396302*	37	0.8972
Dexia Sustainable Accent Social	0.0028591	0.9452463*	41	0.8951
Dexia Sust. World Large Caps Acc	-0.000258	0.9259936*	41	0.8847
GreenEffects NAI-Wertefonds	0.0005979	0.6957746*	41	0.5268
Ducato Etico Geo Acc	-0.0023803	0.9061783*	36	0.9581
Gerling Select 21 (t)	-0.0053094	1.041711*	41	0.8725
ING Duurzaam Rendement Fonds	-0.002776	0.9824711*	41	0.8786
ING (L) Invest Sust. Growth P Acc	-0.0032152**	0.9540131*	41	0.9527
ING (L) Invest Sust. Growth X Acc	-0.0043221*	0.9424734*	38	0.9525
KBC ECO Fund Acc	0.0001941	1.029184*	41	0.9042
Ökovision Acc	0.0014805	0.7389473*	41	0.7657
Robeco DuurzaamAandelen	-0.0035634	1.034272*	41	0.8818
Robeco Hommes Terre Expansion	-0.0039662	0.9408716*	41	0.9068
Sanpaolo Azionario Intern. Etico	-0.0043971*	0.8543266*	41	0.9758
Triodos Meerwaarde Aandelenfonds	0.0018721	0.6927953*	41	0.8225
Triodos Values Fund Intern. Equities	-0.0033012	1.0571*	36	0.9038
VMS Luxinter Ethifund	0.0021619	0.2654477*	41	0.5527

NOTE: * result is significant at the 5% level
** result is significant at the 10% level

Table 5.2

GLOBAL EQUITY FUNDS: Dow Jones Sustainability Index

	α	β	No. Observ.	R-squared
Gestielle Etico Azionario	-0.0036545*	0.5845155*	21	0.9489
Aureo WWF Pianeta Terra	-0.004723	0.7065365*	21	0.7075
ABN AMRO Soc. Resp. Equity Fund	-0.0065923*	0.9668398*	26	0.9737
DWS Invest Sustainability Leaders LC	-0.0029421	0.9039636*	24	0.9351
DWS Invest Sustainability Leaders NC	-0.0034817	0.9048438*	24	0.9379
DWS Invest Sustainability Leaders FC	-0.0020001	0.9103743*	24	0.928
KEPLER Sustainability Aktienfonds A	-0.0044494	0.9570872*	43	0.8882
Raiffeisen-Ethik-Aktien	-0.0024513	0.861956*	25	0.8227
Raiffeisen-Ethik-Aktien A	-0.0029725	0.9297451*	19	0.8734
ABN AMRO Duurzame Wereld Fonds	-0.003697	0.9849244*	49	0.8361
ASN Aandelenfonds	0.0009552	0.9122894*	96	0.7408
ASN Milieufonds	-0.0074437	1.178494*	35	0.766
Athena World Equity C	-0.0032966	0.8136409*	43	0.8962
Dexia Allocation Sustainable World Acc	-0.0021654	0.8973879*	38	0.8672
Meridio Green Balance	-0.0007229	0.9974119*	42	0.7603
Dexia Equities L World Welfare C Acc	-0.0016065	0.9260412*	20	0.9279
Dexia Equities L World Welfare	0.0002828	0.9003756*	45	0.8589

	α	β	No. Observ.	R-squared
Dexia Sustainable Accent Earth Acc	-0.0018473	0.899885*	37	0.8911
Dexia Sustainable Accent Social	0.0017139	0.7873533*	74	0.7283
Dexia Sustainable World Large Caps Acc	-0.0008034	0.896339*	41	0.884
GreenEffects NAI-Wertefonds	-0.0007549	0.6262709*	42	0.4587
Ducato Etico Geo Acc	-0.003239**	0.8728969*	36	0.9624
Gerling Select 21 (t)	-0.0049855	0.9938082*	44	0.8589
ING Duurzaam Rendement Fonds	-0.0019683	0.8721619*	50	0.7614
ING (L) Invest Sustainable Growth P Acc	-0.0029159	0.8786822*	47	0.8649
ING (L) Invest Sustainable Growth X Acc	-0.0048639**	0.9146831*	38	0.9642
KBC ECO Fund Acc	0.0013198	0.8446372*	96	0.8227
Ökovision Acc	0.0010181	0.5511712*	74	0.4784
Robeco DuurzaamAandelen	-0.0022497	0.9831003*	64	0.8698
Robeco Hommes Terre Expansion	-0.0053253**	0.8329849*	55	0.8451
Sanpaolo Azionario Internazionale Etico	-0.0000916	0.8514452*	84	0.7272
Triodos Meerwaarde Aandelenfonds	0.0016628	0.6736775*	44	0.8326
Triodos Values Fund International Equities	-0.0041662**	1.037748*	36	0.9428
VMS Luxinter Ethifund	0.0018217	0.251743*	96	0.4988

NOTE: * result is significant at the 5% level
** result is significant at the 10% level

Table 5.3

GLOBAL EQUITY FUNDS: FTSE World				
	α	β	No. Observ.	R-squared
Gestielle Etico Azionario	-0.004161*	0.6405109*	21	0.9732
Aureo WWF Pianeta Terra	-0.0056468	0.8044636*	21	0.7834
ABN AMRO Soc. Resp. Equity Fund	-0.007281*	1.034749*	26	0.9708
DWS Invest Sustainability Leaders LC	-0.0035612	0.9639354*	24	0.9154
DWS Invest Sustainability Leaders NC	-0.0041017	0.9650652*	24	0.9185
DWS Invest Sustainability Leaders FC	-0.0026231	0.9703615*	24	0.9077
KEPLER Sustainability Aktienfonds A	-0.0043358**	0.9894021*	43	0.9116
Raiffeisen-Ethik-Aktien	-0.0028116	0.9441529*	25	0.8629
Raiffeisen-Ethik-Aktien A	-0.003944	1.002669*	19	0.9048
ABN AMRO Duurzame Wereld Fonds	-0.004393	1.051616*	49	0.8965
ASN Aandelenfonds	0.0014919	0.9499621*	96	0.7347
ASN Milieufonds	-0.0071997	1.253833*	35	0.7879
Athena World Equity C	-0.0032679	0.8317171*	43	0.8994
Dexia Allocation Sustainable World Acc	-0.0021679	0.9374008*	38	0.8761
Meridio Green Balance	-0.0009035	1.04631*	42	0.7943
Dexia Equities L World Welfare C Acc	-0.0027828	0.9842672*	20	0.9466
Dexia Equities L World Welfare	0.0006134	0.9203773*	45	0.8715
Dexia Sustainable Accent Earth Acc	-0.0014111	0.9486546*	37	0.9077
Dexia Sustainable Accent Social	0.0011001	0.8438108*	74	0.7501
Dexia Sustainable World Large Caps Acc	-0.0008523	0.9279436*	41	0.895
GreenEffects NAI-Wertefonds	-0.0007877	0.6703126*	42	0.4989
Ducato Etico Geo Acc	-0.0028446**	0.9121618*	36	0.9638
Gerling Select 21 (t)	-0.0046344	1.021662*	44	0.8829
ING Duurzaam Rendement Fonds	-0.0025879	0.9432269*	50	0.8346
ING (L) Invest Sustainable Growth P Acc	-0.0036485	0.9274151*	47	0.907
ING (L) Invest Sustainable Growth X Acc	-0.0049354*	0.9450666*	38	0.9531

	α	β	No. Observ.	R-squared
KBC ECO Fund Acc	0.0017483	0.8892872*	96	0.8341
Ökovision Acc	0.0005232	0.6240374*	74	0.55
Robeco DuurzaamAandelen	-0.0028891	1.04851*	64	0.879
Robeco Hommes Terre Expansion	-0.0059591*	0.9037978*	55	0.8869
Sanpaolo Azionario Internazionale Etico	-0.0001115	0.9117031*	84	0.7483
Triodos Meerwaarde Aandelenfonds	0.0018607	0.6880659*	44	0.8448
Triodos Values Fund International Equities	-0.0038792	1.058982*	36	0.9004
VMS Luxinter Ethifund	0.0019462	0.2655171*	96	0.5075

NOTE:
* result is significant at the 5% level
** result is significant at the 10% level

2) Euro and European equity funds

For the Euro equity case, there is no evidence of overperformance of SRI with regard to benchmarks, as shown in the tables from 5.4 to 5.8.

Table 5.4

Euro Equity Funds: FTSE Local Eurobloc				
	α	β	No. Obs.	R-squared
MAM Actions Ethique	-0.0014	0.9635*	71	0.7324
CLAM Euro Développement Durable	-0.0062	0.9279*	30	0.8972
Crédit Mutuel Valeurs Ethiques	-0.0063*	0.8912*	48	0.9224
Dexia Sustainable EMU	-0.0066	0.8812*	48	0.8139
Epargne Ethique Actions	-0.0091*	0.8804*	52	0.8555
Euro Mid-Cap Active Investors	-0.0149*	0.8874*	55	0.6311
Ethiciel	-0.0020	0.9107*	31	0.8481
EuroSociétale	-0.0023	0.9865*	59	0.9384
Federal Actions Ethiques	0.0020	1.0763*	47	0.917
Génération Ethique (c)	-0.0004	1.0879*	41	0.9331
Génération Ethique (d)	0.0002	1.0977*	41	0.9232
HSBC AM Actisocia Union Européenne	-0.0057	0.9079*	50	0.8443
Insertion emplois	-0.0111*	0.7613*	53	0.8458
IXIS Euro 21	-0.0050	0.9754*	54	0.9089
KBC ECO Fund Ethi Equity Euroland (d)	-0.0009	1.0202*	41	0.939
KBC ECO Fund Ethi Equity Euroland (c)	-0.0008	1.0205*	41	0.9394
Macif Croissance Durable (c)	-0.0063	0.8197*	54	0.7101
Macif Croissance Durable (d)	-0.0085	0.7844*	55	0.7044
Macif Croissance Durable Europe (c)	-0.0071	0.9124*	37	0.7202
Macif Croissance Durable Europe (d)	-0.0066	0.9199*	37	0.7284
Macif Croissance Durable et Solidaire (c)	-0.0081	0.9161*	37	0.7295
Objectif Ethique Socialement Responsable	-0.0075*	0.8107*	36	0.9088
Sarasin Euro Mid-Caps Expansion Durable	0.0005	0.9868*	46	0.7591

NOTE:
* result is significant at the 5% level
** result is significant at the 10% level

Table 5.5

Euro Equity Funds: E.capital ethical Euro	α	β	No. Obs.	R-squared
MAM Actions Ethique	0.0087	1.1704*	44	0.7890
CLAM Euro Développement Durable	-0.0014	0.9983*	30	0.9044
Crédit Mutuel Valeurs Ethiques	-0.0038	0.8658*	44	0.8897
Dexia Sustainable EMU	-0.0046	0.8733*	44	0.8073
Epargne Ethique Actions	-0.0072**	0.8771*	44	0.8641
Euro Mid-Cap Active Investors	-0.0107	0.8885*	44	0.6557
Ethiciel	0.0019	0.9739*	31	0.8513
EuroSociétale	0.0022	1.0278*	44	0.9441
Federal Actions Ethiques	0.0047	1.0542*	44	0.8953
Génération Ethique (c)	0.0024	1.0908*	41	0.9289
Génération Ethique (d)	0.0323*	1.0467*	41	0.8989
HSBC AM Actisocia Union Européenne	-0.0037	0.8906*	44	0.8212
Insertion emplois	-0.0062*	0.7952*	44	0.8789
IXIS Euro 21	0.0003	1.0150*	44	0.9255
KBC ECO Fund Ethi Equity Euroland (d)	0.0013	1.0120*	41	0.9148
KBC ECO Fund Ethi Equity Euroland (c)	0.0014	1.0125*	41	0.9155
Macif Croissance Durable (c)	-0.0042	0.8232*	44	0.6847
Macif Croissance Durable (d)	-0.0045	0.8185*	44	0.6810
Macif Croissance Durable Europe (c)	-0.0030	0.9731*	37	0.7305
Macif Croissance Durable Europe (d)	-0.0026	0.9795*	37	0.7364
Macif Croissance Durable et Solidaire (c)	-0.0041	0.9758*	37	0.7380
Objectif Ethique Socialement Responsable	-0.0043	0.8604*	36	0.9072
Sarasin Euro Mid-Caps Expansion Durable	0.0026	0.9685*	44	0.7371

NOTE:

* result is significant at the 5% level

** result is significant at the 10% level

Table 5.6

Euro Equity Funds: ASPI eurozone	α	β	No. Obs.	R-squared
MAM Actions Ethique	-0.0031	0.9098*	71	0.7669
CLAM Euro Développement Durable	-0.0065**	0.8309*	30	0.9228
Crédit Mutuel Valeurs Ethiques	-0.0090*	0.7970*	48	0.9338
Dexia Sustainable EMU	-0.0089*	0.7937*	48	0.8356
Epargne Ethique Actions	-0.0125*	0.7907*	52	0.87
Euro Mid-Cap Active Investors	-0.0180*	0.7679*	55	0.5599
Ethiciel	-0.0028	0.8151*	31	0.876
EuroSociétale	-0.0039*	0.9183*	59	0.9729
Federal Actions Ethiques	-0.0014	0.9617*	47	0.9263
Génération Ethique (d)	-0.0025	0.9977*	41	0.9783
Génération Ethique (c)	-0.0032*	0.9848*	41	0.9808
HSBC AM Actisocia Union Européenne	-0.0086*	0.8091*	50	0.8481

	α	β	No. Obs.	R-squared
Insertion emplois	-0.0122*	0.7133*	53	0.89
IXIS Euro 21	-0.0061*	0.9121*	54	0.9595
KBC ECO Fund Ethi Equity Euroland (d)	-0.0040**	0.9125*	41	0.9635
KBC ECO Fund Ethi Equity Euroland (c)	-0.0039	0.9126*	41	0.9637
Macif Croissance Durable (c)	-0.0077	0.7557*	54	0.7286
Macif Croissance Durable (d)	-0.0092**	0.7324*	55	0.7277
Macif Croissance Durable Europe (c)	-0.0084	0.8252*	37	0.7461
Macif Croissance Durable Europe (d)	-0.0080	0.8312*	37	0.7531
Macif Croissance Durable et Solidaire (c)	-0.0094	0.8283*	37	0.7551
Objectif Ethique Socialement Responsable	-0.0090*	0.7222*	36	0.9148
Sarasin Euro Mid-Caps Expansion Durable	-0.0039	0.8486*	46	0.7104

NOTE:

* result is significant at the 5% level

** result is significant at the 10% level

Table 5.7

Euro Equity: S&P Euro				
	α	β	No. Obs.	R-squared
MAM Actions Ethique	-0.0020403	0.9337874*	71	0.771
CLAM Euro Développement Durable	-0.0061032**	0.8690896*	30	0.9261
Crédit Mutuel Valeurs Ethiques	-0.0085265*	0.8156632*	48	0.936
Dexia Sustainable EMU	-0.0085405*	0.8111295*	48	0.8354
Epargne Ethique Actions	-0.0119026*	0.8201273*	52	0.8968
Euro Mid-Cap Active Investors	-0.016434*	0.8248564*	55	0.6088
Ethiciel	-0.0025735	0.8493962*	31	0.8729
EuroSociétale	-0.0025034*	0.9580762*	59	0.9842
Federal Actions Ethiques	-0.0003335	0.9898287*	47	0.9392
Génération Ethique (c)	-0.0022494	1.011907*	41	0.9813
Génération Ethique (d)	-0.0015362	1.024703*	41	0.9778
HSBC AM Actisocia Union Européenne	-0.0079642*	0.8353258*	50	0.8649
Insertion emplois	-0.0120861*	0.7308177*	53	0.8963
IXIS Euro 21	-0.0060664*	0.9364687*	54	0.9668
KBC ECO Fund Ethi Equity Euroland (d)	-0.0031615	0.9357506*	41	0.9603
KBC ECO Fund Ethi Equity Euroland (c)	-0.0030479	0.9360011*	41	0.9606
Macif Croissance Durable (c)	-0.0071597	0.7888098*	54	0.7587
Macif Croissance Durable (d)	-0.0083524**	0.7707156*	55	0.7592
Macif Croissance Durable Europe (c)	-0.0073969	0.8641477*	37	0.7673
Macif Croissance Durable Europe (d)	-0.006968	0.8703887*	37	0.7745
Macif Croissance Durable et Solidaire (c)	-0.0084401	0.8668805*	37	0.7757
Objectif Ethique Socialement Responsable	-0.0083705*	0.7508938*	36	0.9269
Sarasin Euro Mid-Caps Expansion Durable	-0.0020011	0.8897679*	46	0.7456

NOTE:

* result is significant at the 5% level

** result is significant at the 10% level

Table 5.8

Euro Equity: MSCI Euro	α	β	No. Obs.	R-squared
MAM Actions Ethique	-0.0023	0.9105*	71	0.7466
CLAM Euro Développement Durable	-0.0052	0.8671*	30	0.9227
Crédit Mutuel Valeurs Ethiques	-0.0076*	0.8150*	48	0.9309
Dexia Sustainable EMU	-0.0075**	0.8121*	48	0.8341
Epargne Ethique Actions	-0.0107*	0.8158*	52	0.8834
Euro Mid-Cap Active Investors	-0.0168*	0.7983*	55	0.5897
Ethiciel	-0.0017	0.8481*	31	0.8708
EuroSociétale	-0.0031*	0.9347*	59	0.9766
Federal Actions Ethiques	0.0006	0.9880*	47	0.9323
Génération Ethique (c)	-0.0011	1.0159*	41	0.9843
Génération Ethique (d)	-0.0004	1.0284*	41	0.9802
HSBC AM Actisocia Union Européenne	-0.0070**	0.8300*	50	0.8513
Insertion emplois	-0.0116*	0.7193*	53	0.8823
IXIS Euro 21	-0.0055*	0.9253*	54	0.9567
KBC ECO Fund Ethi Equity Euroland (d)	-0.0022	0.9383*	41	0.961
KBC ECO Fund Ethi Equity Euroland (c)	-0.0020	0.9386*	41	0.9613
Macif Croissance Durable (c)	-0.0069	0.7749*	54	0.7421
Macif Croissance Durable (d)	-0.0086**	0.7479*	55	0.7392
Macif Croissance Durable Europe (c)	-0.0067	0.8662*	37	0.7615
Macif Croissance Durable Europe (d)	-0.0063	0.8725*	37	0.7688
Macif Croissance Durable et Solidaire (c)	-0.0077	0.8691*	37	0.7701
Objectif Ethique Socialement Responsable	-0.0077*	0.7522*	36	0.9213
Sarasin Euro Mid-Caps Expansion Durable	-0.0017	0.8779*	46	0.7243

NOTE:
* result is significant at the 5% level
** result is significant at the 10% level

Where significant, alpha is negative. Most of funds, when underperforming, show a negative alpha for almost all benchmark under analysis.

In particular, underperformance is verified, for the same set of funds but one, with respect to ASPI Eurozone, MSCI Euro and S&P Euro at the same time.

R-squares are generally very high; coefficient associated to β varies and we are not able to identify a common attitude towards market risk.

As for European equity funds, results are by no mean different. No positive alpha is verified whilst some funds exhibit a negative Jensen's alpha. Two funds (Cordius and SGAM Developpement Durable), in particular, underperform all benchmarks under analysis whilst in other cases, results about benchmarks are mixed, again verifying findings by Roll. Results are shown in table from 5.9 to 5.11.

Table 5.9

European Equity Funds: S&P 350 Europe				
	α	β	N Obs	R-squared
Aviva Funds European Soc Resp Equity Fund	-0.0043	0.8796*	34	0.9103
BNP Paribas Etheis	-0.0041	0.9619*	24	0.8699
Cordius allocation sustainable Europe	-0.0073**	0.8512*	50	0.8401
Dexia Allocation Sustainable Europe Acc	-0.0054	0.883*	50	0.8328
Ecureuil 1 2 3... Futur	-0.0004	0.9982*	56	0.8935
Europe Gouvernance	-0.0003	1.0378*	76	0.9912
HSBC AM Valeurs Responsables	-0.0037	0.9597*	96	0.6768
SGAM Invest Développement Durable	-0.0047*	0.9814*	48	0.9803

Note : * result is significant at the 5% level ** result is significant at the 10% level

Table 5.10

European Equity Funds: FTSE4Good Europe				
	α	β	N Obs	R-squared
Aviva Funds Europ Soc Resp Equity Fund	-0.0049	0.8375*	34	0.9017
BNP Paribas Etheis	-0.0051	0.9107*	24	0.8594
Cordius allocation sustainable Europe	-0.0079*	0.807*	50	0.8223
Dexia Allocation Sustainable Europe Acc	-0.0058	0.8436*	50	0.8277
Ecureuil 1 2 3... Futur	-0.0013	0.9409*	56	0.8741
Europe Gouvernance	-0.0021*	0.9682*	76	0.9848
HSBC AM Valeurs Responsables	-0.0057	0.8869*	95	0.6545
SGAM Invest Développement Durable	-0.0051*	0.9397*	48	0.9781

NOTE: * result is significant at the 5% level ** result is significant at the 10% level

Table 5.11

European Equity Funds: FTSE Local Europe				
	α	β	N Obs	R-squared
Aviva Funds EuropSoc Resp Equity	-0.0079*	0.8372 *	35	0.8809
BNP Paribas Etheis	-0.0072	0.9007 *	24	0.8654
Cordius allocation sust Europe	-0.0104*	0.7852 *	50	0.7671
Dexia Allocation Sust Europe Acc	-0.0076**	0.841 *	50	0.8109
Ecureuil 1 2 3... Futur	-0.003	0.9433 *	56	0.8813
Europe Gouvernance	-0.0028**	0.971 *	76	0.9613
HSBC AM Valeurs Responsables	-0.0045	0.9513 *	96	0.6919
SGAM Invest Développement Dur	-0.0074*	0.9359 *	48	0.9541

NOTE.
* result is significant at the 5% level
** result is significant at the 10% level

On the whole, the results show that SRI funds, once deducted the expenses, do not "beat" the benchmarks. So, even supposing that portfolio managers are able to add value, the expenses reduce significantly the SRI returns. To be completely comparable, we should have the possibility to compare gross SRI returns with gross benchmarks figures. Using data collected by Datastream, this is not possible since funds prices are already net of expenses.

5.2 Style analysis à la Fama&French

As clearly shown in table 5.12, on the whole period, many coefficients are significative. Almost half of SRI funds under investigation (15 out of 31) exhibit a positive and significative coefficient associated with SMB, thus indicating a bias towards small firm. Our results enhance previous findings about the small firm bias in investment strategies of SRI funds.

Table 5.12

Nome Morningstar	α	S&P 350	HML	SMB	No Obs	R-squared
European Equity Funds						
Aviva Funds Europ Soc Resp Equity	-0.0064	0.8378*	-0.2187	0.3291*	34	0.925
BNP Paribas Etheis	-0.0117**	0.852*	0.44	0.3795	24	0.8913
Cordius allocation sustainable Europe	-0.0053	0.8575*	-0.2028	0.1647	50	0.8511
Dexia Allocation Sust Europe Acc	-0.0055	0.8824*	-0.11884	0.2802*	50	0.8494
Ecureuil 1 2 3... Futur	-0.0009	0.9965*	-0.05412	0.2211*	56	0.9014

Nome Morningstar	α	S&P 350	HML	SMB	No Obs	R-squared
European Equity Funds						
Europe Gouvernance	-0.0006	1.0355*	0.0124	-0.02447	72	0.9921
HSBC AM Valeurs Responsables	-0.0003	0.9926*	-0.1111	-0.2371	72	0.7343
SGAM Invest Développement Durable	-0.0042*	0.9833*	-0.0351	0.0018	48	0.9805

Euro Equity Funds	α	S&P 350	HML	SMB	No. Observ.	R-squared
MAM Actions Ethique	0.003	1.1255*	-0.0103	0.7117*	71	0.8048
CLAM Euro Développement Durable	-0.0057	0.9905*	0.2051	0.4009*	30	0.9419
Crédit Mutuel Valeurs Ethiques	-0.0081*	0.9447*	0.2549*	0.075	48	0.9315
Dexia Sustainable EMU	-0.0047	0.9605*	-0.0572	0.353*	48	0.8609
Epargne Ethique Actions	-0.0079*	0.965*	-0.0586	0.257*	52	0.9067
Euro Mid-Cap Active Investors	-0.0061	0.9776*	-0.6316*	0.7632*	55	0.6602
Ethiciel	-0.0038	0.9547*	0.2863	0.5625*	31	0.9125
EuroSociétale	0.0039	1.1314*	0.0337	0.2847	59	0.949
Federal Actions Ethiques	0.0031	1.1562*	0.06911	0.2349*	47	0.9306
Génération Ethique (c)	0.0037	1.2055*	0.077	-0.0279	41	0.9649
Génération Ethique (d)	0.0054**	1.2282*	0.033	-0.0655	41	0.9648
HSBC AM Actisocia Union Européenne	-0.0051	0.982*	0.0411	0.3102*	50	0.8841
Insertion emplois	-0.0087*	0.8692*	0.0475	0.1994*	53	0.9017
IXIS Euro 21	-0.0014	1.0959*	0.0895	0.0287	54	0.9379
KBC ECO Fund Ethi Equity Euroland (d)	-0.0009	1.0995*	0.2912*	0.0536	41	0.964
KBC ECO Fund Ethi Equity Euroland (c)	-0.0008	1.0993*	0.2966*	0.0484	41	0.964
Macif Croissance Durable (c)	0.0000	0.9431*	-0.2547	0.4069*	54	0.7821
Macif Croissance Durable (d)	-0.0009	0.9317*	-0.2404	0.4074*	55	0.786
Macif Croissance Durable Europe (c)	0.0042	1.0942*	-0.4308	0.1303	37	0.7939
Macif Croissance Durable Europe (d)	0.0044	1.0992*	-0.416	0.1309	37	0.7995
Macif Croissance Durable et Solidaire	0.0028	1.0942*	-0.4	0.1132	37	0.7984
Objectif Ethique Socialement Resp	-0.0078*	0.845*	0.2443*	0.241*	36	0.9542
Sarasin Euro Mid-Caps Exp Durable	0.0027	1.065*	-0.134	0.6533*	46	0.8179

NOTE 1: * result is significant at the 5% level ** result is significant at the 10% level

NOTE 2: For simplicity, we indicate with S&P, HML and SMB the coefficients associated to these variables, named as γ_1, γ_3 and γ_2 in the equation 2)

We shall make some consideration about fund strategy and investment style to give an interpretation to this bias. When SRI funds first came into existence, avoidance criteria were largely used and multinational stocks were penalised into SRI portfolios because largely diversified and active on "black" sectors. Nowadays, best in class approach, *shareholders' activism* and active engagement should allow money managers to look at multinationals under a different light. According to our results, this is not yet the case.

Additionally, results seem to be interesting in terms of disclosure of investment strategy: all funds exhibiting a positive SMB coefficient (thus a small cap bias), are ranked, in the Morningstar database, as large cap funds[63]. Our results go into the opposite direction. This poses a question regarding transparency and investment style assessment. In order to correctly evaluate SRI funds, investors should have correct and reliable information about investment guidelines.

On the growth/value side, the evidence is not striking as in the small/large case. Some of the funds show a value bias. Apparently, growth stocks are penalised and this can be interpreted on the basis of avoidance criteria. Most of SRI funds have a negative screen for firearms, weapons and military contracting. Growth stocks, mainly high tech companies, are often active on softwares and microcomponents that can be used in high tech armaments. On the other side of the coin, the bias towards value stocks can be counterintuitive since big corporation (that we identify with value stocks) are often diversified in "dangerous" sectors and this exclusion is reflected in the small firm bias.

An additional explanation is linked to the market condition and to high tech bubble. Most of the funds under analysis were born after the bubble bursting and the underweight in growth can reflect the cautious attitude towards high tech. However, we cannot test this hypothesis since data available before March 2000 are not enough to allow comparisons.

[63] Morningstar style assessment is based also on the investment guidelines stated in each fund's prospectus. See the appendix for detailed investment strategy of the funds under analysis.

5.3 Conclusions

We will try to briefly sum up the results of our investigation into SRI funds' investment behaviour and performance.

- As in the conventional funds' case, we have verified a significative underperformance when SRI performances are regressed on several market benchmark returns. However, we shall be cautious about these results since SRI funds are already net of expenses (entrance, exit, management and performance fees) whilst benchmarks are gross. Even supposing that active management and SRI researches are able to identify the best performing stocks, once deducted the total expenses, a SRI portfolio underperforms a simple market benchmark.

With a simple CAPM model we are not able to disentangle performance attribution related to active management and sustainability research and this could be a further step in the field of SRI investigation.

In addition to a simple CAPM model we used a multifactor style analysis model à la Fama and French and results seem to be quite interesting.

- As in previous researches about SR funds in UK and North America, continental Europe funds show a significant small cap bias. The existence of this bias on so different geographical markets seems to highlight an underlying common strategy focused on avoidance of large stocks. Results are in same way surprising since most of the funds under analysis are ranked by Morningstar as large cap funds.
- Together with a small cap bias, we verify a value bias that can have two different and convincing possible explanations. The first one is the avoidance of growth stock due to involvement of new technologies in armaments; the second reason is connected to the market crash after the *dot coms* bubble and the following predilection towards value stock.

At the end of our reasoning, we wonder whether there is a sufficient and effective disclosure about the real investment behaviours of the funds. "Doing good while doing well[64]" can be restated claiming that, SR funds, dealing both with financials and human values, have a "moral duty" towards transparency and disclosure.

Clear investment statements would allow researchers to give a convincing explanation of small cap bias and of the value bias we have exhibited and would help investors to correctly locate SR funds in their asset allocation.

[64] Hamilton, Jo and Statman M., op. cit.

APPENDIX

SRI FUNDS' FACT SHEETS

Aviva Funds European Socially Responsible Equity Fund Acc

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Key Stats

Morningstar Category™	Europe Large Cap Equity	**Inception Date**	14/03/2001
Domicile	LU	**Currency**	EUR
Total Net Assets (mil)	10.52	**Fund Typology**	Equity

Brief description of the social and environmental policy

Selection of investments is made by the fund manager by considering the impact of corporate behaviour on society in respect of topics such as employment policy, environmental protection and waste recycling, carefully monitoring management policies and engaging in a constructive dialogue with those companies to ensure continued progress.

Most important negative screens

Firearms	Yes
Weapons and Military Contracting	Yes
Nuclear Energy	Yes
Tobacco	Yes
Gambling	Yes
Human rights and ILO Fundamental Conventions violations	Yes
Child Labour	No
Oppressive regimes	No
Pornography	Yes
Alcohol	Yes
Animal testing	Yes
Factory farming	Yes
Furs	No
Excessive env. impact and natural res. c.	Yes
GMO	Yes
Products dangerous to health/environment	Yes

Most important positive screens

Products beneficial for the environment and quality of life	No
Customers, product safety, advertisement, competition	No
Environmental services and technologies	No
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	Yes
Corporate Governance	No

Fund Benchmark

MSCI World

Ecureuil 1 2 3... Futur (D)

SiRi avanzi SRI research

Key Stats

Morningstar Category™	Europe Large Cap Equity	**Inception Date**	06/10/1999
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	75.27	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund doesn't invest in companies with revenues linked to tobacco, armaments or alcohol, and in companies poorly rated by the agency Vigeo. Furthermore, a partnership was created with UNICEF since January 2002. The agreement establish a direct financing of some Unicef programs by the fund and the adoption of a screening excluding those companies using directly or indirectly child labour.

Most important negative screens

Firearms	Yes
Weapons and Military Contracting	Yes
Nuclear Energy	No
Tobacco	Yes
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	Yes
Oppressive regimes	No
Pornography	No
Alcohol	Yes
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	ND
Customers, product safety, advertisement, competition	ND
Environmental services and technologies	ND
Environmental polices, reports, management systems	ND
Environmental performances	ND
Employees polices, reports, management systems	ND
Employees performances	ND
Suppliers and measures to avoid human rights violations	ND
Communities and bribery	ND
Corporate Governance	ND

MAM Actions Ethique (C)

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Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	02/07/1998
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	25.78	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund doesn't invest in shares of companies operating in tobacco, alcohol, and pornography industries, or those that were poorly rated by the agency Vigeo.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	Yes
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	Yes
Alcohol	Yes
Animal testing	No
Factory farming	No
Furs	No
Excessive env. Impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	No
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	No
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	Yes
Corporate Governance	Yes

Fund Benchmark

Fund Benchmark	SBF 120 : 75%, MSCI EMU ex-France : 25%

Crédit Mutuel Valeurs Ethiques (C)

SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	16/06/2000
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	-	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund invests in Euro-zone equities, excluding those operating in tobacco, gambling and armaments industries. The fund doesn't invest in shares of companies that the agency Vigeo poorly rated relatve to quality of human resources, impact on environment, relations with suppliers/customers and the civil society. Relations with shareholders are evaluated by the fund company directly.

Most important negative screens

Firearms	Yes
Weapons and Military Contracting	Yes
Nuclear Energy	No
Tobacco	Yes
Gambling	Yes
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	No
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	No
Environmental polices, reports, management systems	No
Environmental performances	Yes
Employees polices, reports, management systems	ND
Employees performances	ND
Suppliers and measures to avoid human rights violations	ND
Communities and bribery	Yes
Corporate Governance	Yes

Epargne Ethique Actions

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Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	03/02/2000
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	-	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund invests in companies standing out for a suitable human resources, environmental issues, customers and suppliers management. The fund doesn't invest in: companies operating in armaments or tobacco or adult entertainment production; companies violating human rights or producing goods dangerous to health or the environment.

Most important negative screens

Firearms	Yes
Weapons and Military Contracting	Yes
Nuclear Energy	No
Tobacco	Yes
Gambling	No
Human rights and ILO Fundamental Conventions violations	Yes
Child Labour	Yes
Oppressive regimes	Yes
Pornography	Yes
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	Yes
GMO	No
Products dangerous to health/environment	Yes

Most important positive screens

Products beneficial for the environment and quality of life	Yes
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	No
Environmental polices, reports, management systems	No
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	No
Corporate Governance	Yes

Euro Mid-Cap Active Investors (C)

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Key Stats

Morningstar Category™	Europe Mid Cap Equity	**Inception Date**	31/08/1999
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	-	**Fund Typology**	Equity

Brief description of the social and environmental policy

Invested companies are evaluated on the basis of four positive criteria: business ethics, customers and envirnomental issues management, human resources management, equity of shareholders treatment. Special attention is paied to some industries: tobacco, armaments, media, gambling, biotechnologies.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	Yes
Gambling	Yes
Human rights and ILO Fundamental Conventions violations	No
Child Labour	ND
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	Yes
Customers, product safety, advertisement, competition	ND
Environmental services and technologies	Yes
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	ND
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	ND
Corporate Governance	Yes

Federal Actions Ethiques

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Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	30/06/2000
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	28.84	**Fund Typology**	Equity

Brief description of the social and environmental policy

The investment policy focuses on companies which take into account the following five topics in their development strategy : social relationships, health, safety issues and environnement protection, customers and suppliers relationship, shareholders relationship and corporate governance, community and society involvement.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	ND
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	ND
Environmental polices, reports, management systems	ND
Environmental performances	ND
Employees polices, reports, management systems	ND
Employees performances	ND
Suppliers and measures to avoid human rights violations	ND
Communities and bribery	Yes
Corporate Governance	Yes
Fund Benchmark	
Fund Benchmark	DJ Eurostoxx 50

HSBC AM Actisocia Union Européenne (C)

SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	07/03/2000
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	11.29	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund is composed exclusively of shares in Eurozone companies committed to social and environmental progress. Actisocia Europe uses the original approach of dialoging with companies.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	Yes
Customers, product safety, advertisement, competition	No
Environmental services and technologies	Yes
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	No
Employees performances	Yes
Suppliers and measures to avoid human rights violations	No
Communities and bribery	No
Corporate Governance	Yes
Fund Benchmark	DJ EUROSTOXX

Insertion-Emplois (D)

SiRi
avanzi
SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	11/05/1994
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	96.96	**Fund Typology**	Equity

Brief description of the social and environmental policy

90% of the assets are invested in shares in listed French (and eurozone) companies with a positive social report that have not made compulsory redundancies in the past year or that have an integration policy for underprivileged persons (Human Resources criterion), and in shares in companies with a proactive policy on sponsorship, education and social exclusion (Civil Society criterion). 10% of the assets are invested in shares in unlisted community structures, provided that they directly or indirectly create jobs for the most underprivileged.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Other:

Compulsory redundancies in the past year.

Most important positive screens

Products beneficial for the environment and quality of life	No
Customers, product safety, advertisement, competition	No
Environmental services and technologies	No
Environmental polices, reports, management systems	No
Environmental performances	No
Employees polices, reports, management systems	Yes
Employees performances	ND
Suppliers and measures to avoid human rights violations	ND
Communities and bribery	Yes
Corporate Governance	No

Fund Benchmark 90% SBF 120 + 10%

KBC ECO Fund Ethi Equity Euroland Acc

SiRi avanzi SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	08/01/2001
Domicile	BE	**Currency**	EUR
Total Net Assets (mil)	7.94	**Fund Typology**	Equity

Brief description of the social and environmental policy

Invests in an european (EMU) diversified portfolio of shares in sustainable companies, The selected companies are screened by the KBC Asset Management screening research. To guarantee the fund's ethical nature, KBC is assisted by an independent advisory board which monitors the methodology and activities of KBC's specialized researchers.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	Yes
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	Yes
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	Yes
Corporate Governance	Yes

Fund Benchmark: MSCI P EMU U$ - NET RETURN

Macif Croissance Durable (C)

SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	18/06/1999
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	-	**Fund Typology**	Equity

Brief description of the social and environmental policy

An internal team of four people specialized in socially responsible investments works on the basis of Vigeo criteria. Unions and social economy representatives are among the members of the committee that defines fund's social and environmental screenings.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	Yes
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	Yes
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	Yes

Fund Benchmark

Fund Benchmark	SBF 120

UCITS

UCITS	No	
Corporate Governance		Yes

Objectif Ethique Socialement Responsable

SIRI avanzi SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	01/06/2001
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	44.24	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund doesn't invest in shares of companies poorly rated by Vigeo. Not rated companies can't represent more than 10% of the portfolio. The fund overwights the human resources and envirnment criteria, that constitute 50 and 30% of each company total evaluation respectively, and avoid companies that received a negative "human resources" rating. Vigeo can verify at any time portfolio composition.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	No
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	No
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	Yes
Corporate Governance	No

Fund Benchmark: DJ Euro Stoxx Large ND (Cloture)

Sarasin Euro Mid-Caps Expansion Durable (C)

SiRi

avanzi SRI research

Key Stats

Morningstar Category™	Euro-Zone Mid Cap Equity	**Inception Date**	25/08/2000
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	-	**Fund Typology**	Equity

Brief description of the social and environmental policy

The fund doesn't invest in shares of companies whose rating (attributed by Vigeo) is lower than that the industry average.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	ND
Customers, product safety, advertisement, competition	ND
Environmental services and technologies	ND
Environmental polices, reports, management systems	ND
Environmental performances	ND
Employees polices, reports, management systems	ND
Employees performances	ND
Suppliers and measures to avoid human rights violations	ND
Communities and bribery	ND
Corporate Governance	ND

Dexia Allocation Sustainable Europe Acc

SiRi avanzi SRI research

Key Stats

Morningstar Category™	Europe Large Cap Equity	**Inception Date**	20/03/2000
Domicile	BE	**Currency**	EUR
Total Net Assets (mil)	8.33	**Fund Typology**	Equity

Brief description of the social and environmental policy

Best-in-class SRI screening is provided through the Dow Jones Sustainability Indices. A positive and multidimensional screening methodology is applied.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
Furs	No
Excessive env. impact and natural res. c.	No
GMO	No
Products dangerous to health/environment	No

Most important positive screens

Products beneficial for the environment and quality of life	Yes
Customers, product safety, advertisement, competition	Yes
Environmental services and technologies	Yes
Environmental polices, reports, management systems	Yes
Environmental performances	Yes
Employees polices, reports, management systems	Yes
Employees performances	Yes
Suppliers and measures to avoid human rights violations	Yes
Communities and bribery	Yes
Corporate Governance	Yes

Fund benchmark: DJSI

Ethiciel (C)

SRI research

Key Stats

Morningstar Category™	Euro-Zone Large Cap Equity	**Inception Date**	05/11/2001
Domicile	FR	**Currency**	EUR
Total Net Assets (mil)	-	**Fund Typology**	Equity

Brief description of the social and environmental policy

Companies are rated considering transaprency and their attitude towards the environment through customized information provided by Vigeo. Those companies that receive an evaluation above the sector average are eligible for investment. An ethical committee composed of SRI experts was established.

Most important negative screens

Firearms	No
Weapons and Military Contracting	No
Nuclear Energy	No
Tobacco	No
Gambling	No
Human rights and ILO Fundamental Conventions violations	No
Child Labour	No
Oppressive regimes	No
Pornography	No
Alcohol	No
Animal testing	No
Factory farming	No
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Employees performances	No
Suppliers and measures to avoid human rights violations	No
Communities and bribery	Yes
Corporate Governance	Yes

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Useful websites

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www.avanzi-sri.org

www.e-cpartners.com

www.eia.org.au

www.eiris.org

www.eurosif.org

www.ftse4good.com

www.jantziresearch.com

www.kld.com/

www.rrsp.org/sri.htm

www.share.ca

www.socialfunds.com

www.socialinvestment.ca

www.socialinvest.org

www.sristudies.org

www.sustainability-index.com

www.sricompass.org

www.vigeo.com