Nordic Environmental Funds

1999

Foreword

The Section for Environmental Economics at the Swedish Environmental Protection Agency has been working for some time with environmental issues related to the banking, finance and insurance sectors. This has been done as part of the effort to get each of the various sectors of society to take its environmental responsibility.

This report is a survey of the environmental funds in the Nordic region. It also covers a small selection of international environmental funds reflecting the different types of funds in the USA and Europe. The aim of the report is to inform the reader about which funds there are within this fund segment. However, no judgement has been passed on the funds. Information on the year the fund was established, its total capital, volatility, geographical limitations, comparative index, fund manager, company/person responsible for the fund's portfolio, and for the Nordic funds also administration costs, is given.

The information on which the report is based has been mainly compiled from telephone interviews. Fund managers and environmental analysts at the various fund companies have been interviewed, as well as environmental and information directors at a number of companies that either are or have been included in the portfolios of environmental funds. In certain cases, contact has been established with external competence in the form of researchers and consultants used by the fund companies. General facts reported concern the investment portfolio, holdings and return on investment of the funds and have been obtained from the companies' 1999 interim reports and their 1998 annual reports.

In those cases the report discusses the opinions of fund managers and analysts concerning environmental funds and the environmental fund market, it should be borne in mind that these opinions are the individuals' own. They can however give us an idea of the problems, tendencies and possible development of the environmental fund market.

The last report was published in 1999. This year's report has been extended and includes a chapter on whether environmental funds can be said to generate real benefit for the environment or not. To follow up the discussion in this chapter, a survey has been carried out among a number of environmental directors at randomly selected companies that are or have been included in the environmental funds. These directors were asked how they experience the impact of the funds on the company, both internally and externally and how well they feel the cooperation with fund managers and analysts works.

The report has been written by Maths Lundgren, Stockholm University (the chapter on the benefit to the environment of the funds) and Sara Bronner, Nordic Port AB (other chapters). The project leader at the Swedish Environmental Protection Agency has been Ulf Silvander.

Table of contents

Summary

Environmental work in the finance sector has undergone a marked development over the last few years. The environmental efforts of banks and insurance companies manifest themselves in three main actions:

- they are reducing their own financial risk by evaluating the environmental risk of their customers. Several banks have the expressed aim of integrating environmental aspects into their credit granting procedures and insurance companies are striving to incorporate environmental aspects into their procurement of claims assessment services and to include environmental risk when calculating insurance premiums,
- they are also making their own activities more environmentally sustainable by, for example, reducing their energy and material consumption in their offices, and
- they are also offering their customers environmentally compatible products, of which environmental funds are as yet the most obvious example.

Environmental funds can therefore be said to be part of the overall environmental work done by banks and insurance companies.

The concept of ”environmental funds” covers several different types of funds. For the purposes of this report, environmental funds refer to;

- sustainable funds, i.e. ethical funds that base their investment on environmental analyses of companies,
- environmental technology funds, i.e. sector funds that invest only in environmental technology and alternative products, and
- non-profit funds, without environmental analysis, that award financial grants to environmental organisations etc.

The Nordic funds that are presented in the report are:

Sustainable funds:
Robur Miljöfond, which invests in Nordic companies in all business areas that are listed on the stock exchange. Total fund capital = SEK 727 m.
Talenten Miljöfond, which invests in listed Nordic companies in all business areas apart from the weapon industry, the tobacco and alcohol industries and the commercial gambling industry. Total fund capital = SEK 27 m.
Banco Svensk Miljöfond, which invests in Swedish listed companies in all business areas. Total fund capital SEK 115 m.
Storebrand Global Miljö, which invests in internationally listed companies in all business areas. Total fund capital = SEK 1180 m.
Vesta Grönt Norden, which invests in Nordic listed and unlisted companies in all business areas apart from the oil industry, the power sector (renewable resources excepted), mining, the heavy metal industry, wood processing, alcohol, tobacco and the defence industry. Total fund capital = SEK 772 m.
KPA Etiska Aktiefonder, share fund that invests in international companies in all

business areas, though not in companies active in the weapon, alcohol, tobacco and gambling industries. Total fund capital = 36 m.
Resurs- och Miljöfonden, which invests in international companies in all business areas. Total fund capital = SEK 50 m.

Environmental technology funds:
Wasa Länsförsäkringar Miljöteknikfond, which invests in international environmental technology companies. Total fund capital = SEK 190 m.
S-E-B Miljöfond, which invests in international environmental technology companies. Total fund capital SEK 414 m.
Vesta Miljöinvest, which invests in international environment-driven companies and environmental technology companies. Total fund capital = SEK 19.5 m.

Non-profit environmental funds:
Carlson Världsnaturfonden, which invests in Swedish listed companies apart from those in the automotive, nuclear power, tobacco and defence industries in those cases where the companies' activities within these fields constitute a major part of their business. Total fund capital SEK 470 m.
Banco Ideella Miljöfond, which invests in listed companies, though with a maximum of 25% foreign shares, and to a certain extent environmental technology companies. Total fund capital = SEK 551 m.
S-E-B Östersjöfond, which invests in listed companies in the Baltic Sea region. Total fund capital = SEK 98 m.

Other environmental funds:
Gyllenberg Forum, ethical mixed fund that can invest up to 10% of its capital in SEB Miljöfond and SEB Östersjöfond. Total fund capital = SEK 260 m.

International environmental funds:
NPI Global Care Growth (Great Britain)
Credit Suisse Equity Fund Eco Efficiency (Switzerland)
Sarasin Oekosar (Switzerland)
Domini Social Equity Fund (USA)
Activest Lux EcoTech (Germany)
Fidelity Select Environmental Services Portfolio (USA)

What separates the management of environmental funds from other funds is that, in addition to customary financial details, other information such as the company's environmental load, what it is doing to reduce it and its long-term environmental strategy are analysed. In certain cases, it is difficult for the fund manager to gain access to this information. This might be due to the fact that environmental information is a relatively new phenomenon, so companies have yet to develop efficient routines or methods for compiling and submitting it.
In addition to environmental funds, other forms of environmentally profiled investment options are currently being developed. Several European investment companies have portfolios that are for the most part based on the environmental analysis of companies.

The future environmental fund market may be described as two simplified scenarios. Either, development will be towards environmental analysis being more integrated in all forms of analysis and assessment and therefore environmental funds will play an increasingly marginal role in the finance sector; or, environmental funds will continue to develop and continue to play an important role for investors in those companies that have progressed furthest in terms of resource-efficiency and environmental sustainability.

Background

In January 2000, Swedes had approximately SEK 2.84 billion invested in Swedish environmental funds[1], which amounts to 0.39 % of the total fund investment in Sweden (Svensk Fondstatistik). The proportion of environmentally profiled fund investment to the total fund investment has therefore remained unchanged over the last year. Over the last 18 months, five new environmental funds have started[2], and the total fund capital in environmental funds has increased by SEK 640 million. Saving money in an environmental fund is for many people a way of activating their environmental awareness, since they know that their investment will in some way contribute to a better environment. This may, for example, in the form of the fund making a contribution to some environmental organisation or through direct investment in a company that is pursuing ambitious environmental objectives. Several of the fund managers interviewed pointed out that an increasing number of people are also investing in environmental funds for purely financial reasons, i.e. convinced of the fact that companies that are proactively trying to reduce their environmental load will in the long term generate better returns on investment.

Both the number of environmental funds and their fund capital have risen dramatically over the last few years, and the interest in environmental funds on the Nordic market is on the increase. At the same time as the number of environmental funds is rising, they are increasingly being discussed and scrutinised in the media and other debate fora. Environmental funds are often described as a single, uniform group of funds and their outcomes are frequently compared to each other. Comparisons of this nature can however be deceptive, since environmental funds differ in several fundamental aspects. This report will therefore discuss the various forms of environmental funds that can be identified.

This report is intended for all those who wish to find out more about Nordic environmental funds; which ones there are, their investment strategies, which companies they invest in and what kind of returns they have had. In addition, the report may be useful for those who work with environmental issues in companies and municipalities and wish to know more about fund managers’ reasoning and what criteria they apply when assessing companies. The report also gives details about a small selection of international environmental funds.

Developments in the environmental field

Previously, the environmental work of companies was mostly dictated by environmental legislation and non-profit organisations. Most companies performed environmental measures merely to avoid exceeding legal emission limits. Major changes have however

[1] Banco Svensk Miljöfond, Banco Ideella Miljöfond, Robur Miljöfond, Talenten Miljöfond, SEB Miljöfond, SEB Östersjöfond, Länsförsäkringar Miljöteknikfond, Carlson Världsnaturfonden, Resurs- and Miljöfonden, all KPA funds

[2] SEB Östersjöfond, Resurs- och Miljöfonden and KPA´s four funds

taken place over the last decade. Commitment to environmental matters has spread from a small group of environmental activists to most groups in society, and the previously passive consumer has become a driving-force who wants to contribute to a better environment by adapting his buying habits. Due to this, environmental issues have become more market-driven and companies are increasingly realising that, by fulfilling the consumer's demand for environmental soundness, a competitive edge can be gained over their competitors.

By living up to the customer's environmental demands, certain companies can increase their share of the market. In certain business areas, where development has come a long way, making the business environmentally compatible is an essential pre-requisite of competitiveness. But there are also other reasons for why companies should put environmental issues high on the agenda. Work to reduce the company's environmental impact often leads to savings in terms of reduced energy consumption, less transportation and less material consumption. Saved resources mean reduced costs for the company and in the long run increased profitability.

An additional reason for companies to work proactively with environmental issues is to reduce environment-related risks. This may be a question of damage liability for environmental offences, remediation costs for contaminated land or dramatically increased costs due to, for example, higher energy prices. By mapping the company's environmental impact and working systematically to reduce it, the environment-related risks will be minimised, which, all things equal, should mean a higher valuation of the company.

These facts have meant that environmental matters have become a strategic issue for many companies. The environment has been elevated to executive management level and successful environmental work often derives from progressive and visionary company management. Several large Swedish companies have progressed so far as to integrate the environment into their business ideas. Companies working in this way are often called ”environment-driven companies” since environmental issues have become an important driving-force in company strategy and development. It may be a question of companies that have activities in different fields and for this reason environmental funds may contain companies whose environmental load is rather high and who have previously been regarded as ”environmental villains”, but who are implementing vigorous and far-reaching measures in order to reduce the company's environmental impact.

This development is also true of players in the finance sector such as banks and insurance companies. To an ever-increasing extent, they have begun working with environmental issues. Several banks and insurance companies have directors of environmental affairs, some publish environmental reports alongside their annual reports, others are working with environmental management systems and most of them have now adopted an environmental policy. An additional factor that may affect the finance sector is that the world around us has brought attention to the major opportunities that financial players possess to change the direction of development and drive it forward. By attaching environmental requirements to financial flows, it is possible for banks and insurance companies to exert a positive influence on how society is developing.

The environmental work of banks and insurance companies manifests itself primarily in three actions. Firstly, they reduce the financial risk of their own activities by attaching a value to a customer’s environmental risks. Several banks have as their goal to integrate environmental aspects into their customer credit granting procedures, and insurance companies are striving to incorporate environmental aspects in their procurement of claims assessment services and to include environmental risk when calculating insurance premiums. Secondly, they are also making their own activities more environmentally sound by, among other things, reducing their energy use and material consumption in the office. Finally, they are offering their customers environmentally sound products, of which environmental funds are as yet the most obvious example. Environmental funds are therefore a part of the overall environmental work being initiated by banks and insurance companies.

The environmental benefit of environmental funds

What happens when investors choose to place their money in an environmental fund? Does investment in environmental funds benefit the environment? It is normally held that those companies and business areas that run resource-efficient and environmentally sound operations constitute a good investment due to their lower business risk and in general better profitability. If one believes in such a connection between environmentally sound business practice and profitability, there is obviously good reason to buy into funds that invest in such companies. But the question we are asking ourselves here is not what investing in environmental funds means for the investor's pocket, nor what the investment means from a moral standpoint, but rather what they mean to our natural environment.[3] Put another way, what kind of environmental effects does green fund capital have in the real economy?

What happens to the invested capital?

To be able to discuss the environmental benefit of environmental funds, it is important to understand where the invested capital goes. Spontaneously, one's first thought is that the money invested in a particular company goes to that company. The connection is however not so simple. We have to differentiate the primary from the secondary risk capital market in order to make things clearer. A company, which is in need of money to expand or to successfully negotiate the potentially high-risk start-up period in which profits may not be forthcoming for several years to come, can turn to investors who are interested in putting their money into a new issue of shares. Companies doing this are said to be looking for capital on the primary risk capital market, which means that the money goes directly to the company in question. Fund companies also participate in new share issues but if we look at the total amount of money invested, this is only negligible. This is due, among other things, to the fact that many fund managers wish to limit the risk involved in investing in such companies by, in the fund's regulations/provisions, excluding or limiting investment in unlisted companies. When investment on the primary market actually does occur, it is normally established, listed companies that receive the risk capital.

Substantially, fund capital is invested instead on the secondary market, i.e. where investors buy shares from each other. Simply and somewhat jokingly expressed, we can say that investors exchange shares with each other on a kind of ”second-hand market”. The result of the new investment capital coming into the funds via fund shareholder deposits is (conventionally) that the demand for shares increases and the share price is driven upwards.[4] The point here is that the money does *not* reach the company. What happens is that one shareholder sells to another and the change in ownership is registered in a database. Ownership is transferred in the virtual world in binary numbers. Depending on in which country the shares end up, they are simply sorted under different labels such

[3] The contributions of nonprofit environmental funds to various interest groups will not be discussed here either bearing in mind that the connection between contributions and benefit is quite clear.
[4] In the long-term, the stock exchange price is based on interest rate levels and the company's profits.

as ”Nordic funds” or ”technology funds” or ”environmental funds”, etc. Fund companies’ share trading on the secondary market is basically a game on the financial markets without any real environmental effects in the real economy.

The indirect environmental benefit of environmental funds

It is only when fund companies act on the primary market that they give ”more direct” help to environmentally sound companies in the form of capital. The actions of fund companies on the secondary market can however lead to *indirect* effects in terms of sending signals to those around us that – in the long term – can contribute to real effects in the natural environment. Instead of financial resources (i.e. money), the selected companies receive attention, encouragement and goodwill. In order to follow a further line of argument in this matter, it is useful to start by discussing how value is transformed in the context of a listed company or, to be more precise, by using the concept of ”shareholder value” as our point of departure.

Nowadays, it is normal for a listed company to express its overall aim in terms of shareholder value. Shareholder value is not only about the company’s profitability and long-term capacity to generate profit but also about valuing company shares – something which is not just a function of the company’s profits. It is, among other things, a question of rendering the existing and possible future values both visible and credible with the aim of keeping the company share price up. The valuation is therefore dependent on the confidence/trust the company enjoys among capital market players and (other interested parties). Put another way, a listed company is sensitive to what capital market players think of the company – including what they think of it in terms of the environment. It is quite obvious that listed companies wish to uphold their environmental reputation. We see this not least in the form of practically every listed company now publishing an environmental report or informing the world in some other way about its environmental work.

But what does all this mean for the natural environment? Nature does not care about shareholder value! There are two basic answers to this question. Firstly, the attention paid to environmental funds affects the selected companies’ shareholder value. For although it is not the intention of environmental funds to act as ”judge” over companies’ environmental work, the selected companies still get confirmation of the fact that they are on the right track when it comes to their environmental efforts. This means in turn that that they receive additional energy and moral support to continue along the road they have taken. We must also point out that it is not just ”companies” that are sensitive to what the various players feel about their environmental work. Companies are made up of people who want to feel capable/competent and thrive on the attention of others. This means that company executives who notice that they are rewarded in some way will be encouraged to try even harder. In other words, the fact that environmental funds are investing in the company – followed by subsequent media attention – gives the company management team stamina and provides them with convincing arguments in their dealings with the board, the company’s owners and other interested parties. Secondly, the fact that environmental funds buy the company’s shares means that the demand for

them rises. Even if environmental funds, in this context, do not buy shares in any great volume, it still leads to increased demand for the shares which is positive for its price development.
Both these aspects mentioned above can be expressed in terms of shareholder value, which means that the attention paid by environmental funds is important for a company. But it is not just the selected company and its executive management that receive signals in this way. Signals about what environmental fund managers feel is good (and bad) also reach a company’s competitors, companies in other business areas, other types of funds and a number of other stakeholders/players in society. We must also remember that it is not just in connection with a company being chosen (or not) by a fund or a list of ”environmentally approved” companies that this attention reaches the company and other interested parties. The importance of environmental issues is also brought to the fore in connection with the analyses carried out by fund managers in the form of questionnaires and company visits (with the aim of selecting suitable companies). A practical example can better illustrate this point: An environment officer at one of Sweden’s listed engineering companies says that the attention paid to the company by environmental funds has contributed to environmental issues being elevated to a higher level within the company. The environment is then not just an issue to be tackled by the environmental affairs department or for the environment officer at the information department but is treated as a matter of shareholder value – something which involves the highest executive management in the company. The funds’ environmental analysts are in other words an important ally of those who are particularly interested in protecting the environment from within the company. In similar fashion, the work of analysts can also influence and maybe rouse those companies that have yet to initiate any explicit environmental work.

How can the environmental benefit of environmental funds be improved?

From the above, we can understand that the environmental benefit of environmental funds can increase in two ways. Firstly, by the fact that money invested in environmental funds to a greater extent reaches those companies whose business ideas and activities can be said to benefit the natural environment. Secondly, by the fact that environmental funds can send stronger signals, which can be better utilised to safeguard the natural environment. We will now discuss these two ways in more detail.

What seems to prevent more environmental fund capital from going directly to newly established companies that need risk capital is (in addition to the alleged lack of such companies and business ideas) that fund managers do not want to take on the risk associated with investing in such companies[5]. As a rule, greater risk is always associated with investing in companies that are in the early stages of development. Fund managers make this risk clear by (in the fund regulations) binding themselves not to invest in unlisted companies. But funds can be empowered by their shareholders to promote the natural environment by either mitigating or circumventing this regulation. For example, imagine environmental funds investing in a listed investment company whose business

[5] Fund managers strive to spread their risk not it concentrate it.

idea is to identify, invest in and build up green, unlisted companies.[6] Such a company would firstly fulfil the requirement of being listed, and secondly the risk would be spread due to it owning shares in different companies, at different stages of development and in different business areas.

When it comes to the environmental funds' capacity to exert indirect influence on the natural environment by sending signals that good environmental practice and resource-efficiency are of significant value, it is the responsibility of the company's owners. From the beginning, it is therefore worth discussing the overall rationale that prevails in this field and which most fund managers feel they should go by.

All fund managers have an overall responsibility to protect their shareholders' interests. It is assumed that shareholders are interested in their invested capital being managed securely and its value increasing (the constant balance between risk and return). In order to live up to the expectations of profit maximisation, fund managers wish to be free (given the nature of the fund) to move capital between liquid assets, bonds and shares and to choose, with a relative amount of freedom, between business areas and companies. This means that managers want to be free to increase or decrease their ownership in respective companies in order to utilise (forecasts on) fluctuations in the economic cycle as well as the profit and share price development of companies to better effect. One way of maintaining this freedom is by *not* getting too involved in the company's activities. In other words, fund managers tend to avoid taking an active responsibility to make it easy for them to give up their ownership and reinvest their capital elsewhere. A further argument that is often put forward on behalf of fund managers is that they do not have the competence needed for this. As a result, fund managers act as ”passive owners”. This means at most that they have an opinion about who is selected to the company board and that they quietly try to influence the company in executive management issues. A common way of expressing dissatisfaction is however to communicate by ”voting with their feet”, that is completely or partly reducing their ownership in the company. By allocating priority to this freedom over more involved ownership, fund managers claim to protect the interests of shareholders in the best possible way.

Fund managers therefore do not become more involved in the running of the company in so far that it is easier for them to *be able to* sell and pull out. Put in another way, fund managers prefer to be passive owners. It is said that allegiance to their customers forces fund managers *not* to take a more active role in the management of the company. They want to be free to be able to sell their shares at any time they wish to fulfil their obligation to maximise returns. But here we are talking about responsibility to shareholders! The question we should be asking is to what extent owners have a responsibility for the activities of a company in which they own shares?

Investors in environmental funds have in principle taken a stand because they wish to

[6] There are no such companies in Sweden today.

avoid being owners of certain types of company and prefer others.[7] There is, in other words, reason to ask ourselves whether owners of these funds wouldn't indeed prefer fund managers to clearly express these values to the companies in which they own shares, for example at the annual shareholders' meeting. One could therefore believe that there is scope for environmental funds to create a profile for themselves as active owners trying to attract shareholders who do not want to see the power of their ownership going to waste but instead will be used to place demands for more proactive environmental efforts. Conversely, shareholders can demand that their ownership be more active where certain values are expressed more explicitly towards the companies involved. In other words, ownership power can be used in different ways besides just trying to get companies to consider shareholder value. There are examples of such thoughts in Sweden as well. The Swedish Trade Union Confederation currently has plans to establish funds, the intention of which is, in addition to the management of its members' savings, to utilise its (potential) powerful position in order to safeguard the interests of employees (see Dagens Industri, 27 April 1999, page 2).

The opportunity to utilise one's powerful position as a shareholder can be realised by private shareholders or by funds that feel they have such a mandate. In the United States, this approach is quite common and is referred to as "stakeholder capitalism" or "social investment". On the whole today's trend seems to be towards more funds with an expressed ethical orientation, i.e. we can see before us a more developed capital market. We can also express this in terms of seeing a counter-force to what is sometimes described as irresponsible, casual fund capitalism.

[7] We are disregarding then the fact that certain shareholders take the same view of environmental funds as they do of any other investment, i.e. that they choose to invest in environmental funds because they think the return on their investment will be better than for other categories of funds.

Fund categories

The concept of environmentally profiled fund investment includes ethical funds, nonprofit funds, sustainable funds, environmental funds and sector funds. These fund categories can be difficult to keep apart; partly due to the fact that the concept is often used in an indistinct and sometimes incorrect manner, and partly because their definitions can overlap.

Ethical funds

Ethical funds differ from other funds in that they apply certain investment criteria that are not included in traditional financial analyses. This is founded on the investor's desire to support something he/she feels is right and worth aiming for through his/her investment. It may also be a question of the funds choosing not to invest in areas/companies which the investor feels are undesirable or morally objectionable. There are therefore two dimensions to ethical funds; negative and positive criteria. An example of a negative criterion is a fund that invests in companies in all business areas except the weapon, tobacco and nuclear power industries. A positive criterion may be a fund that only invests in companies that have progressed far in their work to counter racial and sex discrimination. The difference may be difficult to distinguish but in general it can be said that funds with negative criteria invest in ”everything apart from …..” and funds with positive criteria invest ”only in …”.

Sustainable funds

A special form of ethical fund is one whose investment criteria are related to environmental issues. In this report, these funds are referred to as ”sustainable funds”, which means that their selection criteria are built on the concept of ”sustainable development” or closely related reasoning. There are positive and negative criteria here as well; an ethical environmental fund may, for example, choose not to invest in forest companies, nuclear power, the coal and oil industries, genetic technology etc. For example, environmental funds with positive criteria only invest in companies that have reached a certain quality in their environmental work, but where investment is not made in certain companies regardless of how environmentally sound they are, for example those in the alcohol and weapon industries.

The investments of sustainable funds are built on the premise that those companies that are working actively to reduce their environmental impact will be more successful than their more passive competitors in the future. The reasons for this were discussed more at length in the introduction. Sustainable funds mostly have well-developed analysis models to identify those companies that are considered of interest to the fund.

In general, we can differentiate two main types of environmental assessment used by sustainable funds. Some of them use their analysis model to select those companies that are the ”best in the business” regarding environmental work, in so far as active environmental work is actually taking place in that business area. The companies are assessed in relation to each other within the same business area. In these funds, certain business areas may be under-represented, if for example their activities are founded on non-renewable raw materials and do not fit in to a sustainable society. Other sustainable funds try to compare companies to a more absolute concept, such as, for example, by investing only in companies that are best placed to fit in to a sustainable society. Here, companies are not compared to each other, but to an external reference. In these funds, certain business areas may instead be over-represented since they have worked with environmental issues over a long period of time and have therefore come further than other business areas.

In accordance with the previous reasoning, those companies that are on the offensive and successful regarding environmental issues can attain a competitive edge on their competitors. An important prerequisite for sustainable funds is that companies are ”rewarded” by the market for their environmental efforts in the form of a higher valuation. This higher valuation is reflected in the company’s climbing share price. These mechanisms, however, presuppose that those who value the companies and thereby have an effect on the share price, i.e. financial analysts, are knowledgeable about the relevant issues and also have sufficient competence to be able to integrate environmental issues into their analysis. There is presently nothing to indicate that this is the case.

Sustainable funds can work in several different ways. To begin with, when an environmental fund invests in a particular company, the investment constitutes official confirmation that the company has succeeded well in its environmental efforts. In addition, the media start to monitor the company’s environmental work to a greater extent, which means that the company receives positive attention. Media attention has been quite substantial of late since environmental funds have excluded certain companies from their lists of environmentally approved companies. Sustainable funds can also spur companies on to compete against each other on the environment, since several companies are fighting for the title of ”best in the business”. The funds can also help to spread ideas and principles concerning the role and responsibility that companies bear in our quest for sustainable development.

Nonprofit funds

A nonprofit fund is one that does not necessarily apply any special selection criteria in addition to those used in a traditional financial analysis. Instead, the fund gives some of its fund capital or its administration fee to some pre-decided cause that fits its profile. Nonprofit funds can therefore contribute to any organisation at all, for example environmental organisations. In this report, these funds are referred to as nonprofit environmental funds.

Nonprofit funds can be divided up into two groups; firstly, there are those that invest in all companies in all business areas without any restrictions. It is becoming increasingly common however for companies to set up certain negative selection criteria, in which they avoid a small number of business areas for ethical reasons. If the funds give money to environmental organisations, they often choose not to invest in business areas that go against the principles followed by these organisations.

Environmental technology funds

Funds that choose to invest in companies that are in the same business area are often called sector funds, and environmental technology funds belong to this category. Normally, these funds carry a higher risk than funds with broader investment criteria, since economic cycles in the business area in question affect all companies in the same way. Environmental technology funds have no ethical ground to stand on, they are purely commercial and reflect a belief in environmental technology as a future growth industry.

Environmental technology funds buy shares in companies that are active in the so-called environmental technology sector. Environmental technology is a wide concept that can be interpreted in many different ways, but a broad and often-used definition is ”products and services aimed at reducing the use of resources, emissions and waste”. Environmental technology companies are therefore companies whose primary business idea is the environment. Environmental technology funds invest in companies that work in the following areas:

- waste management
- recycling
- water and wastewater treatment
- emissions control and cleansing
- energy-efficiency
- renewable energy (solar, hydro, wind and bio-energy)
- environmentally sound products
- consultancies/knowledge companies in the above areas

The idea behind environmental technology funds is built on the expectation of dramatic growth in these areas. Today, many studies indicate that the environmental technology market is set to grow by 5-20 per cent a year (SOU[8] 1998:118). Environmental technology companies are helped to a great extent by the environment-driven market development that is growing increasingly rapidly. Large companies and public authorities in western countries place ever-harder demands on each other and many are implementing far-reaching measures in order to reduce their environmental impact. These efforts lead to an increased demand for technology and knowledge concerning energy and material efficiency and cleansing techniques. The newly industrialised and developing countries are today facing growing environmental problems and many environmental technology companies are counting on a substantial market growth in these countries. Currently however, economic conditions in developing countries are still too poor to be able to implement measures to combat environmental problems. The current global market amounts to SEK 4000 billion and is expected to rise to SEK 6000 billion by 2010.

[8] Statens Offentliga Undersökningar –Swedish Government Official Reports

A certain amount of criticism has been directed towards environmental technology funds. In those cases where environmental technology companies sell their products to a region where there have been and still are serious environmental problems, they fulfil an important function. But if the growth of the environmental technology sector is founded on sharp industrial growth, where we rely on continuously improving cleansing techniques, we could roughly express this as the dirtier we make the environment, the better the funds will perform. If this is the case, the funds will not have achieved what investors wish to attain with their investment, i.e. to help create a cleaner, healthier environment.

Most Swedish and European environmental technology funds have a large proportion of their investment in the United States, due to the fact that the American environmental technology sector is the largest and fastest-growing in the world. A further reason is that environmental funds often have a rule that dictates how large a part of a business environmental technology should be before the funds can invest in it. European environmental technology firms are often part of larger conglomerates, which makes it difficult to identify and analyse them, compared to the large environmental technology companies in the United States. This has been confirmed by the American analysts, First Analysis, who have developed an index based on the performance of about 50 American environmental technology companies. They have developed special indices for Europe and Japan, since the operations of environmental technology companies in these regions are generally speaking more complex and a greater proportion of them are services compared to American environmental technology companies. American companies are often larger and have recycling, waste management etc. as their core business.

The funds that will be scrutinised in this report are sustainable funds, environmental technology funds and nonprofit funds where they have an environmental profile. These three forms of funds are referred to as ”environmental funds” in the report.

Environmental funds in an international perspective

The Swedish environmental fund market is relatively refined seen in an international perspective. In, for example the United States and Great Britain, where the number of environmental funds is relatively large, a large number of ethical selection criteria have been integrated into the same fund. It is usual for the funds to invest for example both in environmental technology companies and in companies that they feel are very environmentally sound, and at the same time take into account issues such as sex discrimination, social issues, whether they use vivisection etc. The environment is therefore often one of several investment criteria. These funds are called ethical funds. A study of American environmental funds, and also, to a large extent, European funds, will also become largely a study of ethical funds.

Ethical funds have increased like wildfire and a study performed by Social Investment Forum indicates that funds with some element of ethics involved account for about 20 per cent of the capital on the American fund market. In 1999, there were 144 ethical funds in the United States, 44 in Great Britain, 14 in Canada, about 30 in the Nordic region and about 70 in the rest of Europe. Altogether, then, about 300. A major proportion of these funds have environmentally related criteria for their investments. Refined environmental funds are a much younger phenomenon but there are approximately 40 in Europe and about 25 in North America.

How the funds work in relation to the companies

Most fund companies work on the premise that they dispose of their stake in a company if it is shown that the company no longer fulfils the investment demands of the fund manager. Some funds however work together with the companies that are included in their portfolios in order to support and develop the companies’ work with environmental issues. Funds that select and invest in companies that are making very poor environmental efforts belong to the extreme. Through an active impact on these companies, managers of such funds feel they are contributing as best they can to an improved environment.

External competence/ third party analysis

Many environmental funds use external competence in their work to value and analyse companies from an environmental point of view. In the Nordic region, it is not unusual for fund managers to work closely together with a player who constantly contributes to the analytical process. As an example, we can look at Det Naturliga Steget (The Natural Step) which cooperates with Banco Fonder, Bellona who are hired by Vesta Förvaltning, and Ecobalance who perform environmental analyses for SalusAnsvarÖhmanFonder. Internationally, there are players such as EIRIS, Sustainable Asset Management (SAM) and First Analysis who carry out research and analyse environmental issues on the financial market.

Nordic environmental funds

Nordic environmental funds are seldom completely refined. Several of the funds invest in both traditional environmental technology companies as well as in companies with a proactive and successful environmental policy. Some of the funds combine this with negative criteria such as not investing in nuclear power or the weapon industry. Other funds, in addition to their environmental analyses, donate part of their administration fee to environmental organisations. However, to obtain an overview of the funds, we have chosen to categorise them in terms of their main stockholdings.

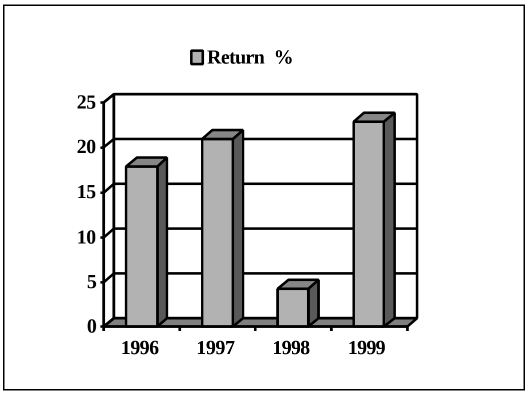
In addition to setting out what the funds invest in and their returns, other aspects are also discussed where information was available. Some concepts that are discussed are volatility, geographical limitations in selection, changes in investment profile and comparative indices. Please note that the scales of the investment return diagrams differ from fund to fund.

Different funds have different risk levels. The risk level is connected to the companies and business areas the fund invests in and in which countries these companies operate. A common way of measuring the risk is to study the fluctuations that have occurred in the fund's returns. These fluctuations are measured in terms of ”standard deviation”. A high standard deviation can often be related to a high risk, and the concept of ”volatility” is often used as a designation for standard deviation. Volatility can be measured for different time periods, and in this report, it is often calculated in a three-year period. There are however some exceptions, partly in those cases where a different time period has been stipulated, partly in some cases where no time information has been available. A measure of a fund's volatility should therefore be interpreted with some caution, but it can give an indication of the risk level of the fund. In certain cases where there is no information, this is due to the fact that volatility is often not officially calculated until after the first three years of the fund.

Geographical limitations in selection also affect a fund's risk level. If a fund limits itself to investing on a single stock exchange, the risk level is probably higher than if the it invests on several stock exchanges across the world. This is due to the fact that national risks have a greater impact when the selection is narrower.

A comparative index is a measure we use so that we have something to which we can compare the development of the fund. An index is a mean value of the share price of a selected number of companies. For a fund that invests in the pharmaceutical industry, it is, for example, appropriate to compare it to the stock exchange's general index, which is a weighted mean average of all listed companies. In the final chapter of this report, comparative indices for environmental funds are discussed in greater detail.

Environmental technology funds



Länsförsäkringar Miljöteknikfond

Country: Sweden
Year established: 1990
Fund capital as of 31 Dec 99: SEK 190 m
Fund volatility: 16.3 %
Geographical limitations: None
Comparative index: None
Fund company: Wasa Fonder
Manager: Björn Randevik

Länsförsäkringar Miljöteknikfond is a global industrial fund that invests in companies whose technology helps to reduce environmental problems. The fact that the fund is global means that it invests in companies across the world, though with the emphasis on the United States. The emphasis from the beginning was even more on the American stock exchange, but in time has come to include several international ones. Since the end of 1998, communication technology has also been included in the investment portfolio. This is justified by saying that development in this area will reduce the need for transport that burdens the environment.

Environmental technology funds focus a great deal on companies whose products have a high technological content. Business areas that are seen as particularly interesting are renewable energy, especially windpower, as well as communication companies in the areas of fibre optics and data communication. Waste management is an area in which investors are gradually looking to reduce their holdings due to reduced profitability. According to the fund manager, this might be due to the relatively small start-up obstacles in the industry which lead to price wars and reduced profit margins. A major wave of acquisitions in the industry of late has not changed this appreciably.

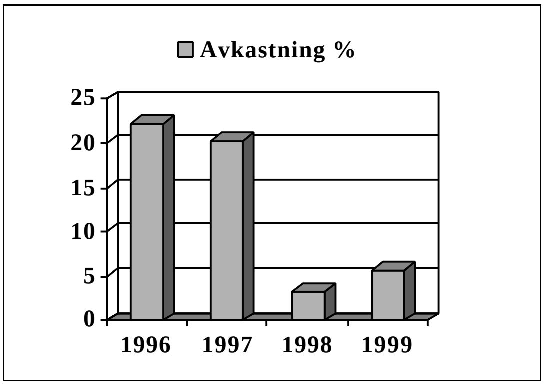
The fund invests, to a certain extent, in unlisted companies that are developing interesting environmental techniques. These currently make up two or three per cent of the fund's holdings.

Major holdings, December 1999

Vestas Wind Systems	*8.9%*
Tomra Systems	*6.1%*
Cisco Systems Inc.	*5.3%*
Vivendi	*4.4%*
Suez Lyonn. des Eaux	*4.3%*

S-E-B Miljöfond

Country: Sweden
Year established: 1991
Fund capital as of 31 Dec 99: SEK 414 m
Volatility: 15.4 %
Geographical limitations: None
Comparative index: None
Fund company: SEB Investment Management
Manager: Carina Björck



S-E-B Miljöfond is a global sector fund that invests in companies whose products, services, technologies and research contribute to a better environment. About 60 per cent of the fund's holdings are in American companies and the fund has permission to invest in smaller companies in the areas of water treatment, emission control and cleansing, recycling, environmentally oriented know-how companies, environmentally friendly products, waste management companies and renewable energy.

An investment committee consisting of representatives from S-E-B and the World Wide Fund for Nature (WWF) are responsible for the fund's environmental profile. The environmental fund also donates 12 per cent of its annual administration fee to WWF. Working from the criteria set up by the committee governing which business areas and operations the fund should invest in, a financial analysis of the potential investment is carried out. The fund does not perform any special environmental analysis of the companies, but does visit all of those that are of interest for new investment or that are already part of the fund's portfolio.

A demand set by S-E-B for its investments is that at least 50 per cent of the company's activities must have some environmental connection for it to be of interest to the fund. Neither may the rest of the company's activities be harmful to the environment. The fund can invest in unlisted companies up to 10 per cent of the fund capital, the rule being that the company must be listed within 12 months.

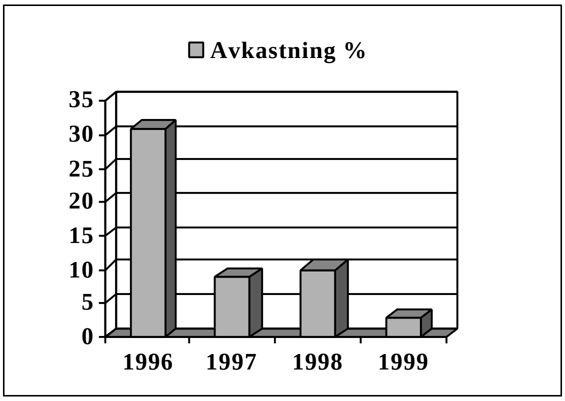
Two areas viewed as particularly interesting and where investment opportunities are being sought for the future are organic food products and renewable energy. The fund managers themselves assess the fund as being high-risk, since it is characterised by investments in smaller companies with, in certain cases, relatively untried technology. External analysts are, to a great extent, used to follow the development on international markets and in order to be able to identify interesting investments efficiently.

Major holdings, December 1999

USA Waste Services	*10.0%*
Tomra Systems	*5.9%*
US Filter	*4.4%*
Catalytica	*7.2%*

Generale des Eaux	*5.6%*
Superior Services	*3.8%*
American Disposal	*3.7%*

Vesta Miljöinvest



Country: Norway
Year established: 1990
Fund capital as of 31 Dec 99: SEK19.5 m
Volatility: 15.8%
Geographical limitations: None
Comparative index: ECO-FAC
Fund company: Vesta Förvaltning AS
Manager: Ole Peter Nordby

Vesta Miljöinvest invests in companies with environmental profiles all over the world, but with the emphasis on the Nordic region. The fund invests in companies that either make a product that is used to create a better environment or use a new production process or manufacturing method that considerably reduces their environmental load. Companies are also included that have a pronounced environmental profile and work purposefully to reduce their environmental impact. The portfolio is dominated by smaller environmental technology companies within the fields of water and wastewater treatment, waste management, recycling and alternative energy, but even IT companies and environment-driven companies in other business areas are also included in the portfolio.

Vesta Miljöinvest applies a large number of negative screening criteria. The fund does not invest in companies in the oil industry, power sector (apart from renewable energies such as wind and water), mining, heavy metal industry, wood processing, alcohol, tobacco and the defence industry. Neither does it invest in large conglomerates on the grounds that it is difficult to obtain insight into the various activities of such company.

The fact that Vesta Miljöinvest is, in terms of volume, a relatively small fund compared to Vesta's other environmental funds is because Vesta Förvaltning has elected to employ the major part of its marketing resources in Grönt Norden. Another reason quoted by Vesta is the difficulty with global funds such as Miljöinvest in obtaining correct and complete information from companies that operate in many different countries. For this reason, it is easier to communicate a message like Vesta Grönt Norden's to fund investors. The target group for both of Vesta's environmental funds is small private investors. No credit rating firms or external analysts are used, but there is a network of contacts above all in the United States that supplies information on interesting environmental companies.

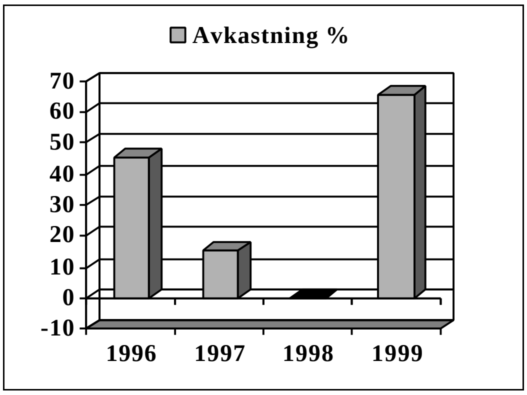
<u>Major holdings, December 1999</u>

Vivendi	*8.9%*
Thames Water Ord	*8.1%*
Vestas Wind Systems	*6.9%*

NEG Micon *4.9%*
Scandic Hotels *4.3%*

Sustainable funds

Banco Svensk Miljöfond



Country: Sweden
Year established: 1994
Fund capital as of 31 Dec 99: SEK 115 m
Volatility 13.9%
Geographical limitations: Stockholm Bourse
Comparative index: None
Fund company: Banco Fonder
Manager: Johan Lindström
External environmental analysis: Det Naturliga Steget

Banco Svensk Miljöfond is administrated by Banco Fonder in cooperation with the environmental organsiation Det Naturliga Steget (DNS) (The Natural Step). The fund invests in those companies assessed by DNS as being companies that possess the best prerequisites for becoming successful in a future society with high environmental demands. The idea is that the fund should stimulate the environmental efforts of companies by pointing out the financial importance of a well thought-out environmental strategy. The basis of the analysis is Det Naturliga Steget's systematic approach. The initial step is the scrutiny of a company's business idea. From this, those companies whose business ideas are totally contrary to the aims of the fund are excluded. An example of such a company might be one that produces persistent artificial substances and has no plans to gradually replace them.

In the environmental analysis of the company, two factors are then taken into consideration: its dependency on resources, products and strategic environmental thinking and efforts. Resource dependency is analysed as flows in and out of the company. Ínward flows comprise energy, raw materials and transportation. Outward flows can be identified partly in the form of products and services and partly in the form of residues from manufacturing processes. In addition to identifying these flows and how big they are, the company's efforts to reduce or eliminate them through the use of new techniques and material are also scrutinised.

The second step is to study the company's strategic thinking, which indicates how well the company is integrating environmental compatibility into the rest of its business development in the long term. The environmental work being carried out today is also examined with regard to, for example, whether the company has an environmental policy, whether it produces environmental reports, whether its staff receive training in environmental issues and whether any environmental management system is currently in use. The emphasis in the environmental analysis is, however, on the changes and improvements taking place in the company, regardless of the original starting-point. Environmental information on a company can, for example, be obtained by studying written material published by the company, site visits, questionnaires and the environmental reports compiled in a database by the Swedish Environmental Protection Agency.

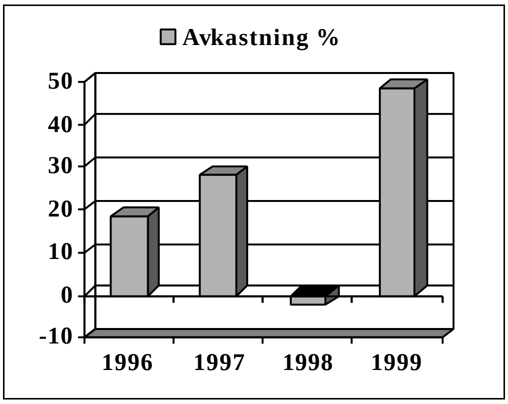
In the analysis, companies are awarded points based on established criteria, and the companies with the highest averages will be put on DNS's so-called list of "chart-toppers", which forms the basis of the Miljöfonden's investments. Based on this list, Banco performs a financial analysis that results in a fund portfolio with the mix of companies or weighting that has been adjudged to give the best returns. Banco does not need to invest in all the companies on the list if this is not seen to be necessary from a financial perspective.

Major holdings, December 1999	
Nokia	*9.5%*
Ericsson	*9.1%*
Kinnevik	*7.8%*
Europolitan	*4.5%*
TV 4	*4.4%*

Other companies that are on Det Naturliga Steget's "chart-toppers" list for 1999 include Volvo, Hufvudstaden, Perstorp and Graninge.

Robur Miljöfond

Country: Sweden
Year established: January 1996
Fund capital as of 31 Dec 99: SEK 727 m
Volatility: 15.1%
Geographical limitations:
Listed companies in the Nordic region, at least 50% Swedish shares
Comparative index: None
Fund company: Robur Kapitalförvaltning (Föreningssparbanken)
Manager: Johan Carlberg
Environmental analyst: Anna Nilsson



Robur Miljöfond invests in Nordic listed companies, that possess a well thought-out environmental policy and that either directly or indirectly contribute to a better environment. The fund invests in these companies partly because it believes companies gain a competitive edge through their environmental work, and partly because the fund should work as a driving-force which puts the spotlight on and rewards those companies that have been most successful with their environmental efforts. Environmental analysis is carried out per business area. All listed companies in a specific business area answer a questionnaire. From the companies examined, a first selection is made. After this first screening based on the answers given to the questionnaire, the companies that are left are thoroughly scrutinised. In total, there are 21 criteria that are applied in the environmental analysis, and these can be divided under the following headings;

- environmental management/leadership
- environmental management systems
- transparency/openness in environmental work
- environmental compatibility of products and production methods
- continuous environmental work

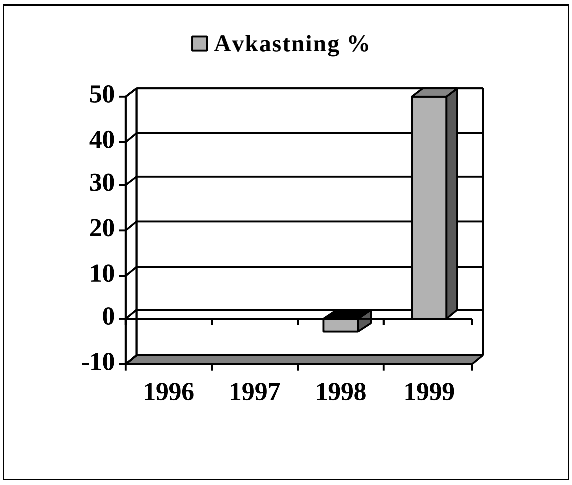
This analysis identifies the company in each business area which, according to Robur's criteria, is the ”best in the business”. An external environmental council with links to the environmental fund is formally responsible for the fund's criteria. The council discusses the environmental analysis and when a company is finally environmentally approved, a financial analysis is carried out before the fund finally invests in the company. The guidelines say that a business area analysis is to be redone every second year, which is considered to be an appropriate time lapse for significant changes to become apparent.

The fund also invests in environmental technology firms, in so far as they are ”the best in the business” according to the analysis. Robur feels that environmental technology firms have an important role to play when it comes to driving technological development forward. The fund is limited in its investment opportunities however by the fact that there are very few listed environmental technology companies in the Nordic region.

Major holdings, December 1999	
Ericsson	*10.3%*
Stora Enso	*8.9%*
Skandia	*5.7%*
Vestas Wind Systems	*5.2%*
WM-Data	*4.7%*

Other companies that are on the Miljöfonden's list of environmentally approved companies are Vesta Wind Systems, ASG, TV4 and AssiDomän.

Talenten Miljöfond



Country: Sweden
Year established: December 1997
Fund capital as of 31 Dec 99: SEK 27 m
Volatility: 18.6 %
Geographical limitations: Listed companies in the Nordic region
Comparative index: None
Fund company: Robur Kapitalförvaltning
Manager: Johan Carlberg
Environmental analyst: Anna Nilsson

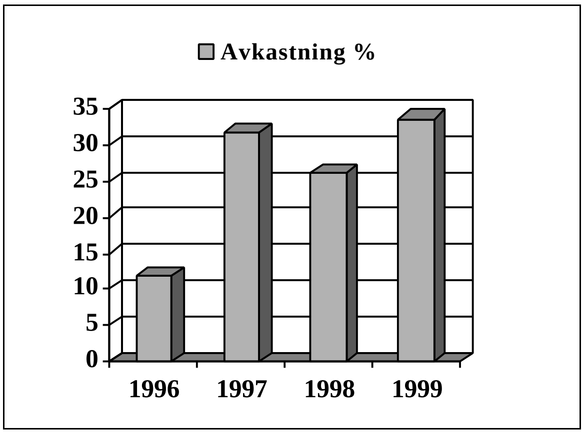
Talenten Miljöfond is an environmental fund that was started on the initiative of the Swedish Church, which wanted to integrate environmental aspects into the investment criteria for its assets. The fund is based on the same criteria and the same analysis as Robur Miljöfond. In addition, the ethical criteria that apply to the Swedish Church's securities fund are also taken into consideration, which means that the fund steers clear of the weapon, tobacco and alcohol industries as well as companies that are involved in commercial gambling. The portfolios of the two funds are, however, not identical, which can probably be explained by the fact that Talenten made the majority of its acquisitions at a different point in time to Robur Miljöfond.

Major holdings, December 1999

Ericsson	*10.0%*
Stora Enso	*8.1%*
Skandia	*6.4%*
Electrolux	*5.4%*
Europolitan	*5.1%*

Storebrand Global Miljö

Country: Norway
Year established: 1996
Fund capital as of 31 Dec 99: SEK 1180 m
Volatility: No information available
Geographical limitations: None
Comparative index: MSCI-World Index
Fund company: Storebrand
Manager: Sarita Bartlett



Storebrand Global Miljö bases its investments on the concept of ”eco-efficiency”, which can be said to be a measure of a company's capacity both to reduce its use of resources and material per so-called ”sold unit” and its capacity to minimise the related environmental risks. This method has its roots in the concept of ”eco-efficiency”, which was developed by WBCSD (World Business Council for Sustainable Development). In the environmental analysis of companies, eight different areas are scrutinised – so-called environmental indicators. These indicators are weighted for different business areas in order to obtain an accurate picture of the company's eco-efficiency. The indicators that are analysed are: global warming, ozone impact, material efficiency, toxic emissions, energy efficiency, water consumption, environmental quality of the management and product properties. In a programme specially developed for the fund, Storebrand Ecoval, an environmental index for each indicator is calculated, along with an environmental index for the whole company and finally the environmental return for the company, which is a comparison of the data from the 1000+ companies that are in the fund's database. The difference between the company's total indicator value and the environmental index for that business (i.e. the business area average) is what is referred to as the company's eco-efficiency.

For a company to be considered for investment, it must have a sustainable index among the top 30 per cent in its industrial sector as well as be attractive from a financial point of view. The concept of eco-efficiency has been developed to be able to make comparisons between environmental results of companies in the same business area. In this respect, this fund is similar to Robur's Miljöfond, which also tries to identify those companies that carry out the best environmental work compared to their competitors. The companies to be included in the portfolio are chosen from about 900 companies. It is also from this selection that the environmental index is calculated. Information is obtained through questionnaires sent out to the companies.

Storebrand feels that Global Miljö is on a lower risk level than most other environmental funds, partly because its portfolio is so diversified due to it investing in all business areas and partly because it is a global fund and therefore spreads the risks. Storebrand also is of the opinion that the reduced environmental risks of the companies have an impact on the risk level. Storebrand also applies negative screening criteria, and does not invest in, for example, tobacco companies, companies that manufacture anti-personnel mines or power companies where more than 10 per cent of the energy comes from nuclear power. If the company exceeds this limit, the environment-related risks are deemed to be too high. Global Miljö invests in environmental technology when the company is large and "the best in the business".

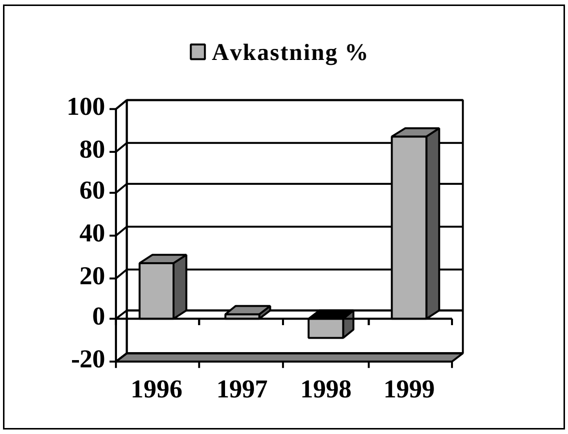
Storebrand pursues a proactive dialogue with companies to help them develop environmentally. The fund also chooses to invest only in large companies and not in unlisted companies since the marginal environmental improvements will be greater than at smaller companies. At the end of 1999, Global Miljö was introduced onto the Swedish market in cooperation with SPP.

Major holdings, December 1999

National Grid	*2.4%*
Münchener Rück	*2.1%*
Bayer Vereinsbank	*2.1%*
British Telecom	*2.1%*
Williams Cos Inc	*2.1%*
UNUM Corp	*2.0%*
Sabra Group Hold.	*2.0%*

Vesta Grönt Norden

Country: Norway
Year established: 1989
Fund capital as of 31 Dec 99: SEK 772 m
Volatility: 20.4%
Geographical limitations: The Nordic region
Comparative index: Standard & Poor's Nordic
Fund company: Vesta Förvaltning



AS
Manager: Ole Peter Nordby

Vesta Grönt Norden invests in companies that either manufacture a product used to create a better environment or in a company that uses a new production process or manufacturing technique that considerably reduces its environmental load. Vesta Grönt Norden invests exclusively in Nordic companies, 46 per cent in Norwegian companies and the rest divided among Sweden, Denmark and Finland. Grönt Norden is therefore a mixture of environmental technology and sustainable funds, but with the most part of its investment in larger environment-driven companies. The fund does not seek to identify those companies that are the best in the business, but looks at the best solutions to environmental problems in all business areas.

Grönt Norden applies a large number of negative investment criteria. The fund does not invest in companies operating in the oil industry, power sector (apart from renewable resources such as wind and water), mining, heavy metal industry, wood processing, alcohol, tobacco and the defence industry. Neither does the fund invest in large conglomerates on the grounds that it is difficult to gain sufficient insight in the various activities of such companies.

In December 1999, the fund had approximately 10.9 per cent of its total fund capital invested in unlisted companies, which is the highest figure of all the environmental funds in this report. It is also expressed in the fund’s investment profile that smaller unlisted companies, which are likely to be introduced onto the stock exchange within a certain time, are sought after and identified.

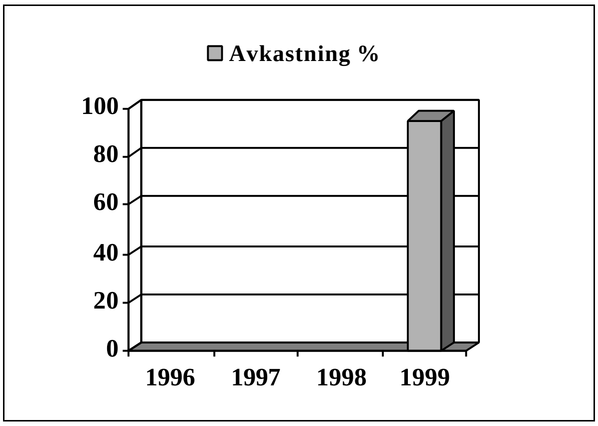
The selection process is carried out by environmental screening of all companies on the Oslo Bourse. This analysis was initially made in cooperation with the environmental organisation, Bellona. The screening process produces a list of companies, which is to be updated annually. Based on this selection, a traditional financial analysis is carried out resulting in a fund portfolio. In this way, environmental aspects are put before financial aspects of the analysis.

Major holdings, December 1999

Vestas Wind Systems	*7.0%*
Nokia	*6.0%*
EDB Elektronisk	*5.3%*
HÅG	*4.7%*
Alcatel STK	*4.2%*

KPA Fonder

Country: Sweden
Year established: March 1999
Geographical limitations: None
Comparative index: 50 % Findatas
Return index: 50 % MSCI World Net
Fund company: KPA Fonder
Manager: KPA Etisk Aktiefond: Håkan Willnersson



KPA started four ethical funds at the beginning of 1999. Only statistics from the ethical share fund are presented here. The other three funds partly or solely invest in securities such as bonds and national liability bills. The four funds are ethical funds that analyse companies based on a larger number of criteria than the other environmental funds. The funds do not invest in companies operating in the weapon, alcohol, tobacco and gambling industries. The weapon industry is completely out of the question, whereas companies may operate within the areas of alcohol, tobacco or gambling as long as the share of the company's total turnover does not exceed SEK 10 million or 1 per cent of the reported annual turnover.

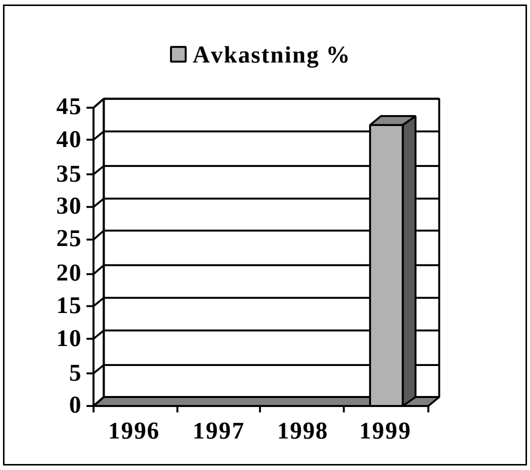
Companies are also analysed based on environmental criteria. The fund says it invests in company groups that are working actively to reduce their negative impact on the environment. The analysis method used by KPA comprises 22 criteria in five different categories where an assessment is made of how far companies fulfil the requirements for each criterion. The categories are:

- Goals and strategies – analysis of, for example, how environmentally aware the company is, its environmental policy, environmental goals, integration of environmental issues into its communication strategy, etc.
- Execution – assessment of the company's environmental programme and environmental management system, analysis of environmental monitoring, reporting and legislation.
- Manufacturing – scrutiny of the company's manufacturing processes, both focusing on design/construction and suppliers, and on the direct environmental impact of its manufacturing processes.
- Products – analysis of product design, emissions, waste and resource consumption both when in use and as waste. Assessment of external environmental information such as environmental labelling for consumers and waste handlers.
- Service companies – manufacture and production are not analysed. Instead, how the company's work in relation to their suppliers is scrutinised along with its resource efficiency.

This analysis identifies a number of companies that attain the minimum level set by KPA for its investments. The companies included in the fund portfolios are not necessarily ”the best in the business”, but may be one step behind though still fulfilling other requirements set by KPA for its investments. KPA uses the analytical services of the consultancy company, Caring Company, and also has an ethics council which it consults in uncertain cases concerning investment.

<u>*Major holdings, December 1999*</u>	
Nokia	*8.1%*
Sonera	*6.4%*
Perlos	*4.1%*
Proffice	*4.1%*
Effnet Group	*3.4%*
H & M	*3.3%*

Resurs- och Miljöfonden



Country: Sweden
Year established: December 1998
Fund capital as of 31 Dec 99: SEK 50 m
Volatility: -
Geographical limitations: the Nordic region
Comparative index: Alfred Berg, Nordic Index
Fund company: SalusAnsvar ÖhmanFonder
Manager: Ulf Wibåge

The geographical selection is companies in the whole of the Nordic region that are listed on one of the stock exchanges. Until now, the fund has invested the major part of its capital in Swedish companies, but probably its holdings will be spread all over the Nordic region in the future. It is felt however that development in the environmental field will differ considerably among the Nordic countries. In Finland, for example, it may be difficult to find companies that perform consistently good environmental work throughout the company; often some parts of the company work very well, both when it comes to business idea and environmental work, whilst another part of the company is dealing in, for example, genetic technology or hazardous substances and processes.

Resurs- och Miljöfonden invests in companies in all business areas which, based on the fund's criteria, focus on resource-efficiency and environmental friendliness in their operations. Environmental analysis of companies is carried out by the environmental consultancy, Ecobalance. As a first screening, three aspects of the company are analysed. If the company does not fulfil the fund's requirements for all three aspects, it is not suitable for investment. These aspects are: 1) how the company's environmental work is organised, 2) the strategic position of the management on environmental issues, 3) previous or current environmental disputes. In the next stage, the environmental analysis is coordinated with the financial analysis, performed by the fund manager. The analysis results in about 40 companies from which the manager may choose to make up his/her portfolio. The business areas that are included in the portfolio are decided on from case to case and there is no "best in the business" methodology.

The fund also invests in environmental technology companies such as Vestas, Tomra and NEG Micon. The assessment criteria are the same as for other companies, that is that the company must have a well-functioning environmental programme and strategic environmental awareness. The analysis focuses a great deal on the change process in the company and how fast this is progressing, and not just on the environmental performance at the time of the analysis. About half the emphasis in the analysis is on internal environmental work and the other half is on the company's resource-efficiency. The assessment of the company's resource consumption is divided up into energy, transportation, water and both renewable and non-renewable material.

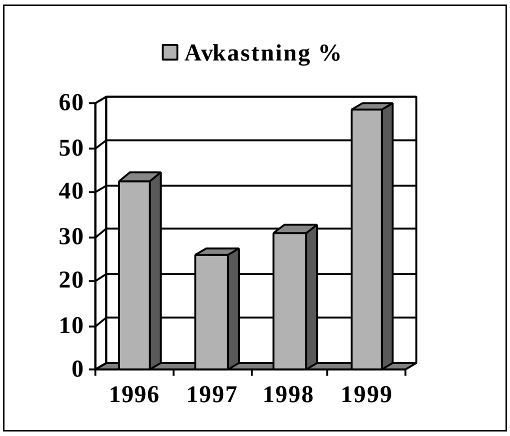
Major holdings, December 1999

Ericsson	*9.3%*
Europolitan	*6.0%*
Tele Danmark	*5.8%*
Vestas Wind Systems	*4.5%*
Electrolux	*4.5%*
Skandia	*4.1%*

Nonprofit funds

Carlson Världsnaturfonden (WWF fund)

Country: Sweden
Year established: 1988
Fund capital as of 31 Dec 99: SEK 470 m
Volatility: 19.5%
Geographical limitations: Stockholm Bourse
Comparative index: Stockholm Bourse General Index
Fund company: Carlson Fondförvaltning AB
Manager: Anders Jonsson



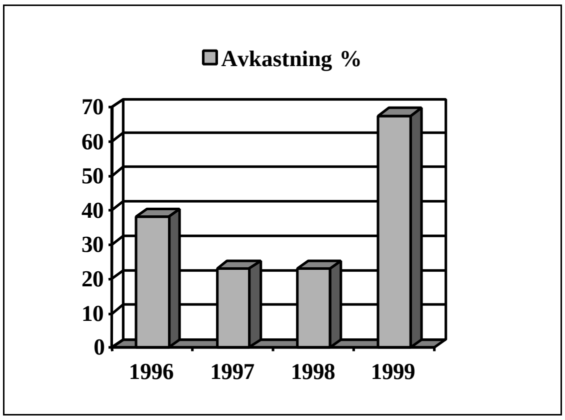
The WWF public savings programme is a nonprofit fund that donates 2 per cent of its annual fund capital to the World Wide Fund for Nature (WWF). At the end of 1997, the contribution amounted to SEK 9.6 million. A number of negative screening criteria are used that tally with WWF's aims. The fund does not invest in the forest industry, automotive industry, nuclear power, tobacco industry or the defence industry in those cases where such activities make up a significant part of the company's operations. At the beginning of 1999, the investment criteria were changed so the fund can now invest in forest companies, due to the work that has been going on in this sector with the environmentally certification of forests over the last few years. Cooperation between Carlson Investment Management and WWF takes the form of representatives from WWF being on the fund company's board and working together on issues that concern what the fund will invest in.

The fund's selection process is a financial analysis, in which consideration is not taken of any environmental aspects apart from the negative criteria. The fund's investment policy allows a small number of unlisted companies to be part of the portfolio on condition that they are soon to be listed.

Major holdings, December 1999

Nokia	*10.0%*
Ericsson	*9.9%*
AstraZeneca	*6.1%*
H&M	*6.1%*
ABB	*5.4%*

Banco Ideella Miljöfond



Country: Sweden
Year established: 1984
Fund capital as of 31 Dec 99: SEK 551 m
Volatility: 19.3%
Geographical limitations: Sweden, max 25% foreign shares
Comparative index: Affärsvärlden's general index
Fund company: Banco Fonder
Manager: Per Ström

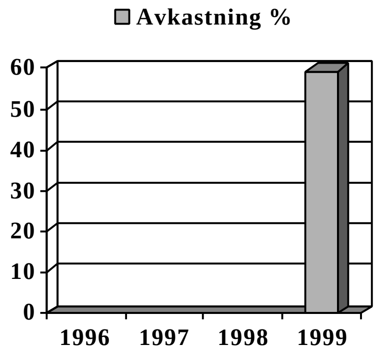
Banco Ideella Miljöfond is a nonprofit fund that donates 1 per cent of its annual fund capital to environmental causes. The fund currently supports the Swedish Association of Graduate Engineers' Environmental Fund, the Foundation Vi Plant Trees, the nonprofit association Västerhavet, The Nordic Ark and Friends of the Swedish Natural History Museum. In the analysis, no consideration is taken of environmental aspects; on the contrary, the portfolio composition is based on financial analysis alone. However, the investment strategy of the fund is such that part of the capital will be invested in environmental technology companies. Today, the fund's investments include Waterlink, which works with water/wastewater treatment and Earthshell, which manufactures environmentally sound packaging. The fund mainly invests in Swedish shares but may also invest up to 10 per cent of the fund's total value in other countries. Only 0,16 per cent of the fund capital was invested in foreign shares in 1999.

Major holdings, December 1999

Nokia	*9.7%*
Ericsson	*9.3%*
Electrolux	*6.0%*
AstraZeneca	*4.6%*
H&M	*4.5%*

SEB Östersjöfond

Country: Sweden
Year established: January 1999
Fund capital as of 31 Dec 99: SEK 98 m
Volatility: -
Geographical limitations: The Nordic region, Germany, Poland and the Baltic States
Comparative index: Alfred Bergs Nordic index (60%), FTI Germany (15%), ING Barings (15%) and the Baltic States divided among Talse, Dow Jones Riga and LITIN (10%)
Fund company: SEB Fonder
Manager: Carina Björck



SEB Östersjöfond is a nonprofit environmental fund that invests in companies in all business areas operating in the Baltic Sea region. This includes the Nordic countries, Germany, Poland, and the Baltic States with the emphasis on the Nordic region. Since several of the markets around the Baltic Sea are still relatively undeveloped, the manager feels the fund is on a higher risk-level than a normal Nordic fund.

In concordance with WWF's ethical requirements, Östersjöfonden does not invest in companies that have the major part of their operations in the alcohol, weapon, car, petroleum or tobacco industries. Each year, the fund donates the equivalent of 1 per cent of the total fund capital to WWF and SEB contributes the same amount.

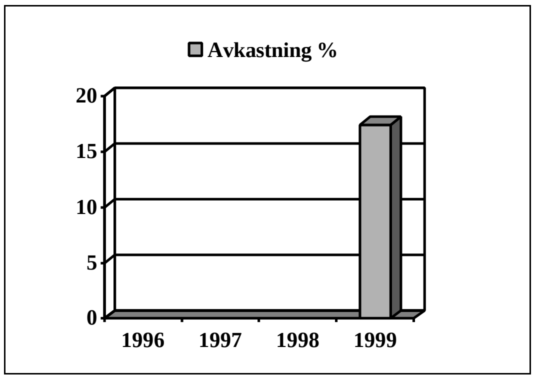
Major holdings, December 1999

Nokia	*10.4%*
Ericsson	*9.2%*
Mannesman	*3.1%*
SCA	*2.8%*
H & M	*2.7%*

Other funds

Gyllenberg Forum

Country: Finland
Year established: April 1999
Fund capital as of 31 Dec 99: SEK 260 m
Volatility: -
Geographical limitations: Finnish interest instruments 75% and shares 25%, of which half are foreign.
Comparative index: 65 % Leonia's bond index, 10 % Leonia's money-market index, 15 % HEX portfolio index, 10 % MSCI World
Fund company: Gyllenberg Asset Management
Manager: Riitta Hujanen



Gyllenberg Forum is an ethical mixed fund which seeks to take ethical aspects into consideration when making investment decisions.

The fund has an investment council, which monitors the fund and acts as an advisory body when the fund's risk level and investment are decided on based on ethical criteria. These criteria are only of a positive nature and imply that the fund should invest in companies that take their responsibility for good social development, for the environment as well as for their customers and employees. Negative investment criteria only occur when Forum invests in other funds with such criteria. The fund manager does not make a thorough environmental analysis of the company, but instead has the opportunity to invest directly in SEB's environmental funds. However, the fund does not currently invest in SEB Miljö and SEB Östersjö.

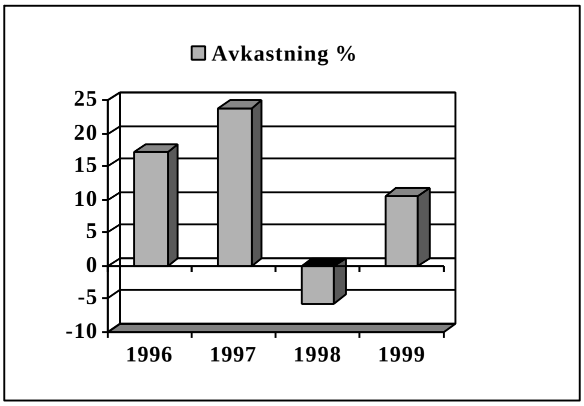
Major shareholdings, December 1999	
Sonera-Yhtymä Oyj	*1.7 %*
Nokian Renkaat Oyj	*0.8 %*
Kone Oyj	*0.8 %*
Tietoenator Oyj	*0.7 %*
Instrumentarium Oyj	*0.7 %*
Finnlines Abp	*0.7 %*

International environmental funds

Six international funds are presented below. The funds represent several different countries and fund orientations, but otherwise are randomly chosen from the hundreds of existing international funds.

Activest Lux EcoTech

Country: Germany
Year established: 1990
Fund capital as of 31 Dec 99: approx. SEK 215 m
Volatility: 14.1%
Geographical limitations: None
Comparative index: None
Fund company: Activest Luxembourg
Manager: June Scott, Foreign & Colonial Management Ltd, London



EcoTech is a global fund that invests in companies developing products and technologies for a healthier and better environment. It seeks, above all, to invest in companies that are developing new, innovative technologies in the environmental field. Activest feels that these companies possess excellent market prerequisites, are competitive in the long-term and have every chance of being very profitable. Business areas which are considered to be of particular interest are emission control/cleansing, recycling, waste management, bio-technology and geo-thermal energy.

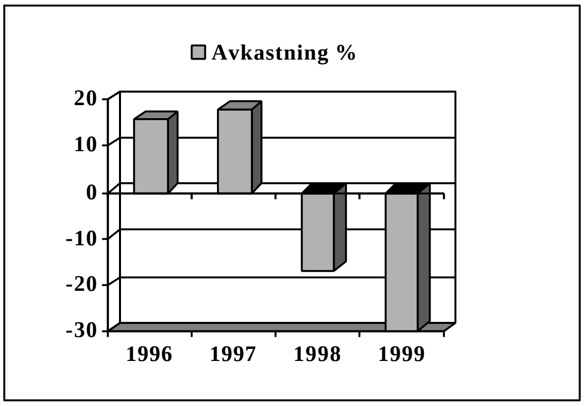
It is interesting to look at the portfolio distribution among different countries. About 60 per cent of the fund’s investment is in the United States, Great Britain, Japan and Denmark, where Denmark accounts for a full 10.5 per cent of the fund’s holdings. Swedish companies come under the heading ”Others”, accounting for 2.3 per cent of investment. There are several examples of funds, often environmental technology funds, that invest considerably more in Danish than in Swedish companies.

Major holdings, December 1999

Vestas Wind System	*6.3%*
Secom Co Seo Patrols	*4.9%*
Italgas	*4.6%*
Roche Holding	*4.0%*
Ballard Power Systems	*3.6%*
Pall	*3.6%*

Fidelity Select Environmental Services Portfolio

Country: USA
Year established: 1989
Fund capital as of 31 Dec 99: SEK 100 m
Volatility: 24.3%
Geographical limitations: None
Comparative index: S&P 500
Fund company: Fidelity Investments
Manager: Ian Gutterman

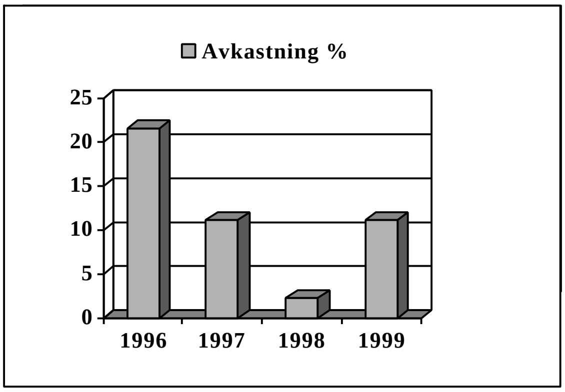


Fidelity Select Environmental Services Portfolio is a refined environmental technology fund that invests globally, but with considerable emphasis on American companies. The fund invests in companies operating within the fields of research, development, manufacturing or distribution of products, services and processes within waste management and emission reduction. The fund manager views the fund as high-risk, partly because this market is relatively dependent on political decisions.

Major holdings, December 1999 (information about ownership share is unavailable)
Tetra Tech Inc.
Republic Services Inc.
Insituform Technologies Inc.
Safety Kleen Corp.
Allied Waste Industries inc.
Thermo Electron Corp.

Sarasin Oekosar

Country: Switzerland
Year established: 1994
Fund capital as from 31 Dec 99: SEK 892 m
Volatility: 8.3%
Geographical limitations: None
Comparative index: MSCI-World Index
Fund company: Bank Sarasin
Manager: Andreas Knörzer



Sarasin Oekosar is a sustainable fund that invests in shares in Europe, North America and Japan, but with a great deal of emphasis on European shares. The fund invests in companies that are considered to be so-called ”eco-leaders” in each business area respectively. Eco-leaders are companies where environmental issues play an important role in the company’s strategic development and are always present when decisions are to be made in the day-to-day running of the company. They are often pioneering and set a good example in the relevant business area, many of them also have a progressive programme for social issues. These are not necessarily large companies, in certain cases it is a question of visionary small and medium-sized companies that are leading development in the environmental field.

The fund also applies negative criteria to its investments, and therefore does not invest in the weapon industry, car industry, agricultural chemicals (commercial fertiliser), as or in companies that have over 5 per cent of their turnover from nuclear power-based energy production.

The companies that are considered by the fund manager as potential investments are analysed in accordance with a 7-step model.

Financial analysis® Negative criteria® Ecological benchmarking® Questionnaires® Valuation/weighting® Scrutiny of other information, e.g. written publications ® ”Sustainable Contribution Portfolio”.

The initial financial analysis is based on a traditional company analysis, although it also includes an evaluation of the impact of the company’s environmental work on its shareholder value. In the second step, those companies that do not fulfil the fund’s negative criteria are excluded. In the third step, the company is analysed using a number of environment-related benchmarks based on the kind of operations that the company runs.

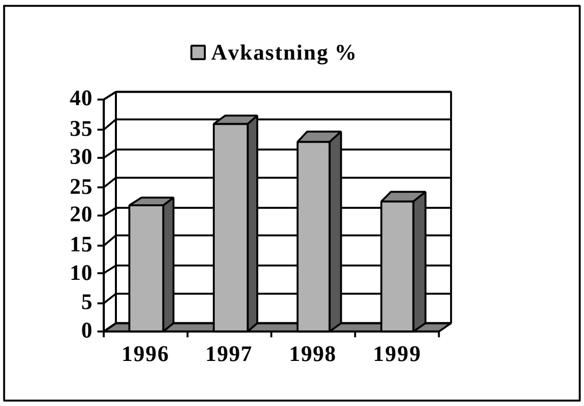
The questionnaire that is used in the analysis is a central part of the selection process, where the company must submit information in four different fields: environmental strategy/policy, production processes, products and the environmental management systems used to fulfil its environmental policy and objectives in a long-term perspective. The quality of information from this step in the process is improving, as the access to environmental information from companies is becoming easier. In the valuation carried out in the fifth step, these four areas are weighted in order to take the different prerequisites of each of the business areas into account. In the last step, economic and environmental aspects are combined with social aspects where appropriate. After these seven steps, the companies that are left are the only ones that fulfil the fund’s investment criteria.

Major holdings, December 1999

NTT Docomo	*4.6%*
Nortel Networks	*3.1%*
Vestas Wind System	*2.9%*
Canon	*2.8%*
Geberit	*2.6%*

Domini Social Equity Fund

Country: USA
Year established: 1991
Fund capital 31 Dec 99: approx SEK 11,415 m
Geographical limitations: None
Comparative index: Domini 400 Social Index
Fund company: Domini Social Investments
Manager: John R. O’Toole, Mellon Equity



DSEF is the largest of the funds studied in this report. It also has the broadest investment criteria. The fund invests in companies that are heavily involved in local issues, the environment, working conditions for their employees and product-related issues. The emphasis is on social criteria, but here we have only looked at the environment-related criteria. When selecting companies to be included in its portfolio, equal regard is taken for financial, ethical and social issues. When studying the environmental aspects, the fund seeks to identify the environment-related strengths and weaknesses of companies.

Those areas that have been identified as strengths are: 1) a major part of the company’s income comes from products that promote energy-efficiency, environmental services or products that remediate environmental damage or other innovative products that have large environmental benefits; 2) the company has a well-developed action programme for emission reduction and reduced chemical use; 3) the company either operates in the recycling sector or uses a large amount of recycled material in its production process; 4) a large proportion of the company’s income comes from alternative fuels such as natural gas, windpower and solar energy.

Those areas that act as ”warning bells” during the selection process are if the company: 1) has environmental liabilities in excess of SEK 500 m or if it has paid any substantial amounts of money for contravening environmental laws; 2) is a major manufacturer of substances that can damage the ozone layer; 3) causes emissions of hazardous chemicals (within the framework of permitted emissions) that are among the highest of those companies scrutinised by the fund manager; and 4) is one of the USA’s largest manufacturers of agricultural chemicals.

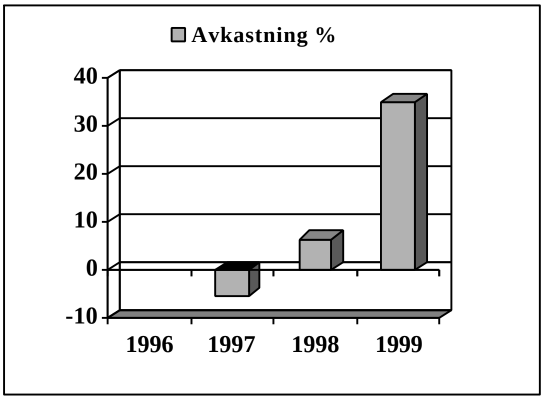
The target for return on investment is to achieve at least the same level as the Domini 400 Social Index, an index that covers 400 companies that fulfil a number of broad ethical and social criteria. This index is used by a large number of ethical funds in the United States. The negative criteria applied by the fund are against alcohol and tobacco companies, nuclear power, the weapon industry and commercial gambling. The fund also avoids companies that have performed very badly in those areas included under the heading of positive criteria.

Major holdings, December 1999
Microsoft Corp. 8.1%

Intel	*4.3%*
Cisco Systems	*3.9%*
Wal-Mart Stores	*3.7%*
Lucent Technologies	*3.5%*
Merck & Co	*3.4%*
AT&T	*2.4%*

Credit Suisse Equity Fund Eco Efficiency

Country: Luxemburg
Year established: 1997
Fund capital as of 31 Dec 99: approx. SEK m
Geographical limitations: None
Comparative index: MSCI World Index
Fund company: Credit Suisse Asset Management
Manager: Rolf Elmer
External environmental analysis: Sustainable Asset Management, SAM



When the fund was introduced in 1990 as ”Oeko-Protec”, it was a refined environmental technology fund. In August 1997, the investment strategy was revamped and was henceforth based on the concept of eco-efficiency, i.e. it became a sustainable fund. The reason for this was partly because environment-driven development in business had in general come a long way and partly because competition among environmental technology funds had become so fierce that by repositioning itself, the fund would be at the cutting edge of development.

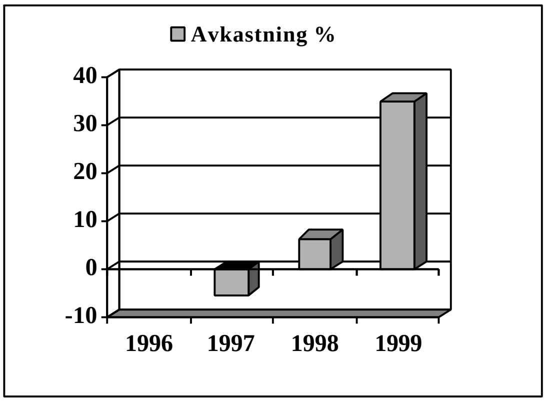
The point of departure for the investment strategy is that eco-efficient companies are those that adapt their production processes according to ecological principles and through this reduce emissions and safeguard natural resources. This leads to reduced costs for the company and stronger competitiveness, which the fund manager feels has a positive affect on the company’s share price. The fund invests globally in companies in all business areas that make products or offer services in a way that corresponds to the principles of eco-efficiency. Selection is effected partly through a thorough analysis of different business areas and their environmental impact and partly through scrutiny of the companies in each business area of interest and an identification of the most eco-efficient companies. This results in a number of companies which the fund can use as a basis for investment, i.e. it need not invest in all of them, but the basis is broad enough to be able to vary the portfolio sufficiently. The investment basis is analysed and updated by the consultancy group, SAM (Sustainable Asset Management), in Switzerland. American companies constitute 40 per cent, 11 per cent of investment is in Great Britain, 8 per cent in Switzerland and 14 per cent in Japan.

Major holdings, December 1999
Vestas Wind Systems 3,8%

Sun Microsystems	*3.3%*
Lucent Technologies	*3.0%*
Enron	*2.7%*
Nortel Networks	*2.5%*
Procter & Gamble	*2.4%*
Schweiz Rueck	*2.3%*

NPI Global Care Growth

Country: Great Britain
Year established: 1991
Fund capital as of 31 Dec 99: approx. SEK 2,072 m
Volatility: 7.1%
Geographical limitations: None
Comparative index: None
Fund company: NPI Investment Management
Manager: Toby Belsom



NPI administrates a number of funds using the same investment criteria. The point of departure for investment is the belief that companies that have succeeded in meeting today's environmental demands will develop better than their competitors in the future. To a large extent, NPI integrates environmental criteria and social criteria. In the analysis, the fund seeks to identify those listed companies that have come the furthest in their respective business areas when it comes to environmental, financial and ethical aspects. Investment is made in all areas, including traditional industries, but there is a great deal of focus on growth industries such as IT, health and medical care, renewable energy, emission control and energy-efficiency. The fund company also looks for niche companies within environmental technology, such as water/wastewater treatment and solar cell technology. The fund can be said to be a cross between a sustainable fund and an environmental technology fund focusing on smaller growth companies. Environmental analyses are however also carried out on environmental technology companies and the fund does not invest in environmental technology companies that cause a major negative impact on the environment through their production.

The environmental analysis includes both positive and negative criteria. The negative criteria exclude those companies that do one (or more) of the following:

- Generate large amounts of greenhouse gases; mostly carbon dioxide
- Operate in the mining industry
- Do business related to nuclear power
- Produce pesticides that are classed as hazardous
- Obtain more than 10 per cent their income from major road construction projects
- Do business related to rain forest deforestation
- Make or sell ozone-depleting substances

- Consume and contaminate large amounts of water resources

The positive criteria identify those companies that:

- Are directly or indirectly involved in energy efficiency techniques
- Make or sell public transport systems
- Operate in the IT or telecommunications sectors
- In some way work with emission control or recycling
- Develop and manufacture process control instruments, that minimise the use of energy, material and water

The fund is also actively involved with its portfolio companies looking for a constructive dialogue to encourage and support the internal change management in the companies concerning both environmental and social issues. Initiatives include discussions with companies that export to Burma to make them aware of the human rights violations in the country, and contact has also been taken with 25 large soft-drink manufacturers to persuade them not to use so-called soft CFCs in their new rapid-cooling drink cans.

The influence of the funds on companies

Investing one's money in an environmental fund means for most people a desire to contribute to a better environment. An interesting question is what effects do environmental funds actually have on the environment? Do the billions invested in environmental funds achieve improvements in the environment?

As is clear from the section written by Mats Lundgren, the infusion of capital has no noticeably positive effect on the companies, as long as it is a question of investment on the secondary market, i.e. trade with existing shares. But it may also be so that investment causes indirect effects that cannot be seen; for example, in the form of new investments. Several companies have, for example, used the capital invested by environmental funds in their own external PR to market themselves as environmentally sound companies with an environmental profile. Investment means that that the company can show a receipt that proves that it is working in a structured and successful way with environmental issues. Other companies, on the other hand, have received very negative PR when environmental funds have elected to sell their holdings in them for environmental reasons. There are many indications that companies can be influenced by the investment of environmental funds.

To find examples of how the companies themselves experience this, about 20 environmental directors and information officers were contacted at companies that either are included or have been included in the holdings of sustainable or environmental technology funds. The questions posed to them were not only about how the funds' investment had affected the company, both internally and externally, but also about how the cooperation between on the one hand the fund managers and analysts and on the other the companies had functioned.

Since the interviews were relatively open and the number of interviewed companies relatively limited, it has been difficult to draw any statistically significant conclusions from the survey. The persons interviewed have however in many cases had very interesting points of view and concordant opinions, which at least indicates certain tendencies in the survey.

The analysis process

All sustainable funds begin their scrutiny with some form of comprehensive screening of all the companies that may be of interest for investment. In most cases, relatively detailed questionnaires are sent out to all listed companies. The response frequency for these questionnaires is around 30-40 per cent. After the first screening of these companies, the analysts normally visit the companies that are of interest for investment/”listing”. Interviews with key personnel in the company are carried out and more unofficial facts and documents are studied in order to obtain a detailed picture of the companies environmental work. The scope of this work may however differ greatly from case to case. Certain companies say that they have had visits lasting 2-3 days where analysts have scrutinised all the activities of the company. Other companies that are in environmental fund portfolios say that they have never received a visit, but that they have merely submitted documents such as environmental reports and policy documents prior to investment. This may in certain cases be due to analysts having prior knowledge and information about the company rendering a visit unnecessary.

One question asked in the survey for this report was whether the company felt that the analysis carried out by the environmental analysts would be of use in some way. The answers varied greatly. Some said they had benefited considerably from the analysis in the form of constructive feedback from the analysts, where they have gone through the strengths and weaknesses of the company's environmental work and strategy. They felt it was useful for an external person with some distance to the company's activities to study and evaluate the work being done, particularly as the environmental funds often follow the development of a company in the environmental field for several years. Others said that they had not received any feedback at all, and two environmental directors said that it was only after they had exerted some pressure that they had received some response to the analysis carried out by the fund company. Several felt that they ”have a right to the results” since they had submitted a lot of information which in some cases could be considered confidential.

Some of the environmental directors pointed out the fact that environmental analysts bring environmental competence and new angles of attack to the environmental work they do in their own organisation, something often missed by environmental directors who often feel they lack ”allies” in the company to discuss things with.

Almost all companies said that they felt it took a lot of effort for the organisation to assemble the information asked for by the analysts. Since there are certain differences between the different funds' criteria and issues, it can also be difficult to develop material that satisfies all analysts and further surveys, which means that the material must be adapted each time. Several environmental directors were searching for some form of coordination concerning the handling of environmental information.

Internal environmental work

The majority of the environmental directors interviewed felt that the investment made by the environmental funds has had a positive effect on the company's environmental work. The companies, however, that are in the funds' portfolios are often those that have, relatively speaking, come a long way with some form of organised environmental work, which means that they have already taken a policy decision to prioritise environmental issues in company operations. For this reason, the investments made by environmental funds in such companies are not a crucial factor, nor do they drive internal environmental work forward. On the other hand, however, almost all the environmental directors interviewed feel that the employees receive confirmation of the fact that their work in this area is both successful and visible, something which often strengthens their motivation and commitment even further.

Several of those interviewed also felt that the fact that the company had been chosen by a fund as a pioneer in the environmental field was very positive for the company executive management. This is something that, in the long run, can result in more resources being made available for environmental work. The environmental directors themselves also stated that it was easier for them to carry through changes in the company, since other employees, for example in finance and marketing, have noticed the significance of environmental work to a greater extent.

Some of the companies point out the positive aspects of the environmental analysts sometimes sending their questionnaire to the finance department. This means that internal environmental work can gain greater acceptance, facilitating the efforts of those working with environmental issues since financial personnel gain a greater understanding for the connection between environmental work and company finances.

Finally, some of the companies felt that coming under the microscope of fund managers and environmental analysts has helped them to develop new ways of reporting and following up environmental information, something which they would not have prioritised otherwise.

External communication

The environmental directors were asked whether they used the fact that environmental funds invested in them in some form of external communication or marketing. About half the companies stated that they used the investment actively in connection with marketing. This may mean that they mention it either in their annual reports or environmental reports, and in some cases in advertisements or company brochures.

Perhaps we can see a pattern here in that companies that have been included in environmental funds from the start have often used the investment in some form of marketing. Those companies that have come into the funds at a later stage are much more sceptical to using the investment in their external communication. Several environmental directors stated that they were afraid that it might damage the company in the long run, since the company’s environmental work will be more exposed and one small “slip” could bring negative media attention. This may be due to the fact that companies that explicitly say that they are environmentally aware are scrutinised more closely today than they were 3-4 years ago.

The question was also asked how the company would experience being excluded from the funds. All those interviewed said that it would be somewhat negative. Firstly, the company’s green image would deteriorate in the eyes of its customers and competitors. Secondly, the company’s internal organisation would be negatively affected, since many may feel that there is no point in continuing working with the environment if they have been rejected by the environmental funds. There has also been a relatively large amount of negative media attention concerning those companies that have been excluded from the funds of late. Of the two companies interviewed that had been excluded from the funds, both of them said it had been negative for them, especially concerning their internal organisation.

The environmental directors were also asked for their opinions about the connection between the company's environmental work and the development of its share price. Almost all the directors that they currently did not work on the premise that environmental work has a bearing on the company's share price. A number of them did say that they believed in the increased influence of environmental factors on the share price in the future, but it would be a long time before this was a reality, especially on the Swedish financial market.

Environmental technology companies

In connection with the interviews, contact was also established with five non-Swedish environmental technology companies that are included in the holdings of Swedish environmental technology funds. Swedish environmental technology funds do not carry out a comprehensive environmental analysis of these companies, even though they do ensure that their activities do not contravene environmental legislation or the fund's investment criteria. The environmental technology companies interviewed all said they had experienced rapidly increasing demands on environmentally sound activities, especially from their customers. Two of the companies were ISO 14001 certified, and all of them said that they had put more resources into their internal environmental work. Four out of five of those interviewed said that they actively used the fund's investment in marketing and communication, and all felt that the investment has had a positive impact on the company. In a few of the companies, they felt that both environmental technology funds and sustainable funds now made a deeper analysis of the company's environmental work, which means that it is less important to the company which kind of fund is investing in them.

Discussion

Nordic environmental funds in an international perspective

One of the differences between Nordic and international environmental funds is the degree of refinement in the portfolio. For example, S-E-B Miljöfond and Länsförsäkringar Miljöteknikfond focus more strongly on environmental technology companies than international funds do. International environmental technology funds often have a greater proportion of their investment in companies in all business areas that make environmentally sound alternative products.

Many American and British funds choose to invest in companies analysed by an independent firm of analysts who have selected those companies that work actively and successfully with environmental issues. Often, these companies also fulfil other ethical and social factors. Nordic, and to a certain extent other European, environmental funds often have ”in-house” analytical competence.

A number of environmental technology funds, both Nordic and international, often have the same environmental technology companies in their portfolios. For example, companies such as Tomra, US Waste and Suez Lyonnaise des Eaux can be found in almost every environmental technology fund or mixed environmental fund. The number of refined listed environmental technology companies is still very limited, even seen from an international perspective. This means that environmental technology funds, regardless of the fact that they are business area funds, have less freedom to act when selecting their portfolios and find it more difficult to create a distinctive image or find a niche for themselves within a certain area of the environmental technology sector.

Comparative indices

Some of the indices used by environmental funds are mentioned in this report. These include: Affärsvärlden’s General Index, Standard & Poor’s 500 Index (S&P 500) and Morgan Stanley’s Capital International World Index (MSCI) (See appendix). Nonprofit and sustainable funds may use a stock exchange’s general index since they invest in listed companies in all business areas. Using an index is, however, not without its problems for an environmental fund. Certain distortions can occur due to the negative criteria employed by many of the funds. Negative screening may, for example, exclude large ”stock exchange locomotives” because their activities include the manufacture of components used in the weapon industry etc. In this case, a comparison with a general index would be misleading, since the environmental fund may have difficulty in achieving the same rate of return as the index.

This was the case with Vesta’s Grönt Norden, one of whose negative criteria is that it does not invest in the oil industry. The Oslo Bourse is to a great extent influenced by the economic cycle of the Norwegian oil industry. Vesta previously compared the fund to the Oslo Bourse’s total index, but stopped doing so when it realised that the comparison was misleading. The oil industry has been very much on the up in Norway over the last few years, which meant that Vesta Grönt Norden consistently had a poorer rate of return than the index. One should look at the reasoning behind negative screening that excludes certain business areas. If exclusion is based on ethical reasons, comparison with a general index may be misleading. If the fund’s negative screening is, however, based on a commercial premise that the excluded companies will perform less well than others because of their environmentally hazardous activities, the environmental fund should have a higher rate of return than the index. So, a comparison may also be misleading in the opposite direction, if environmental funds, due to their negative criteria, have excluded one or more large companies that drag the stock exchange’s general index down.

A comparison with the general index may also be distorted for sustainable funds, since several of them are based on a limited number of environmentally approved companies. A list of about 30 companies in which the fund manager may invest means that systematic discrepancies may occur due to the limited flexibility of the portfolio. Normal funds that invest in all companies on the stock exchange, can instead have hundreds of companies with which they can vary their portfolios.

Most of the fund managers who were asked felt that well-designed comparative indices for environmental funds would be very desirable, but they were also in agreement on the fact that there are great difficulties associated with trying to develop them. Due to sustainable funds having different analysis models and assessing companies in different ways, it is difficult to make relevant comparisons between them. There are, however, those who hold the opposite view. At Credit Suisse, it was felt that a special comparative index was undesirable, since its calculation would be based on companies’ eco-efficiency. Since their reference is all companies in the same business area, an index such as MSCI would be useful in order to demonstrate the higher rate of return that the portfolio companies have reached relative to the index.

The rate of return for environmental funds

Previously, it has often been said that there is a choice between investing in environmental funds and achieving a higher rate of return. Today, there are many surveys indicating that companies working seriously and proactively with environmental issues and/or social issues develop equally well or better than their competitors. The consultancy firm, Sustainable Asset Management, who are cooperating with Dow Jones on a new environmental index has carried out a survey of those companies that have been in the index since the beginning of 1999. The survey showed that these companies have had considerably better returns than other companies in the Dow Jones global index during the period 1994-1999.

In 1996, Storebrand performed an analysis of those companies it had invested in shortly beforehand. It examined what rate of return it would have had if it had invested in the same companies five years previously. The results indicated that the rate of return during the period had been as high as 22 per cent a year, during a period in which the Morgan Stanley World Index had grown by 12 per cent annually.
Domini Social Index (DSI), an index based on 400 companies selected using broad social and environmental criteria, had constantly beaten Standard & Poor's 500 index since it started in May 1990. Total returns up until 30 September, 1998 were:

	DSI	**S&P 500**
Last 12 months	12.5%	9.2%
Yearly average, 3 years	24.8%	22.6%
Yearly average, 5 years	21,0%	19.9%
Accumulated returns since start-up (1 May 1990)	333.0%	283.8%

The reasons behind this higher rate of return are however more uncertain. For example, it is likely that a company that has an otherwise well-functioning organisation and well-structured management system will be successful in its environmental efforts. It may also be the case that it is mainly companies with high rates of return that feel they can afford to invest in environmental efforts and new environmental technology, and who therefore prove the connection between environmental work and high rate of return.

During 1999, Nordic sustainable funds have had a rate of return higher than ever before. This is of course connected to the general boom that took place on Nordic stock exchanges during the year. Sustainable funds have increased by between 42 and 95 per cent during 1999. Nordic environmental technology funds have had returns of between 3 and 23 per cent during 1999. Nonprofit funds rose by between 58 and 64 per cent.

Difficulties in managing environmental funds

During the interviews with portfolio managers and environmental analysts, it was discussed whether they experienced any clear difficulties in managing environmental funds. Some problems were highlighted by a number of the interviewees. Funds that invest in environmental technology companies are, more often than not, global funds. This means that they must collect information from companies situated in countries that are far away both in terms of geographical distance and culture. In Asia, for example, a different culture prevails concerning how company information is handled and there is not as much openness as there is in Sweden for example. This means that fund managers sometimes experience difficulties in gaining access to information. This problem can crop up in their dealings with Swedish companies as well, however, in the form of unwillingness to cooperate.

Several sustainable fund managers experienced difficulty in quantifying environmental information in order to be able to compare companies operating in the same business area. No two companies have the same production process or product assortment even if they are in the same business area, which means that it is difficult to compare their environmental performances using quantitative measures such as key ratios for resource consumption and emissions. Comparisons and assessments are therefore often more qualitative, or are based on a self-made points calculation model.

Several fund managers also felt that it was often complicated to interpret the environmental information available on companies. Sometimes it is difficult to say what the consequences of a certain environmental measure will actually be, which means that it will be difficult to appreciate the company's position and development.

A further difficulty is that the manager of a sustainable fund can not be sure that he/she has identified the most eco-efficient company or those companies that are the ”best in the business”, since he/she may inadvertently miss companies during the selection process. Several of the funds send out questionnaires to companies but the number of replies sent back always drops off. There is reason to believe however that those companies that neglect to answer environmental fund questionnaires do not have a great deal to present in terms of being the “most successful environmental work”.

Generally speaking, the biggest problem facing environmental technology funds is obtaining access to information, due to the geographical distance and cultural differences on both a national and company level. As far as sustainable funds are concerned, the greatest problems facing the fund manager seem more often to be analysing and interpreting environment-related information.

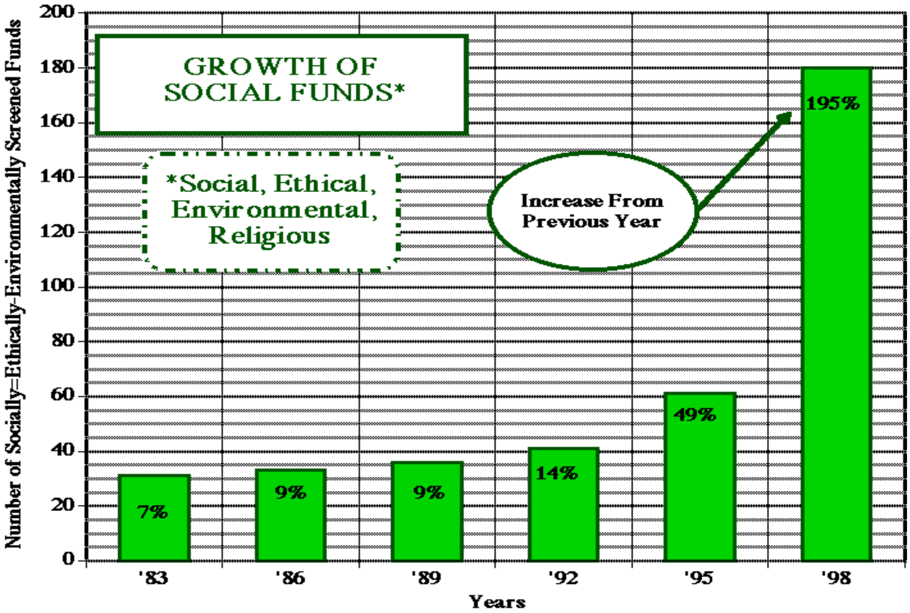
Other ethical criteria

In the United States and Great Britain, where the market for ethical funds is more developed that in the Nordic countries, environmental funds, as previously mentioned, are not as refined as regards environmental criteria. There, the funds are characterised by a large number of integrated criteria in their investment profiles. There are several reasons to believe that many Nordic funds will go the same way. One example is Storebrand Global Miljö, which intends to integrate social aspects into its company valuations parallel to the environmental analyses. One reason for this is that the fund has attracted attention because its analytical model did not include working conditions and other social aspects, and therefore could not claim to be based on the concept of “sustainable development”.

This is in line with the development of environmental work in companies which has gone from merely focusing on emissions to being based on the concept of “sustainable development”. Sustainable development should be sustainable in three ways: ecologically, economically and socially. This means that environmental aspects are integrated in economic and social/ethical aspects, and it is therefore a natural consequence that environmental funds should also integrate these three aspects in its company analyses. A further reason for integrating social/ethical criteria may also be the negative attention that several companies have received recently because they use child labour in overseas production or because they have a poor personnel policy.

The number of funds founded on ethical criteria is rising rapidly. According to the organisation, Money World, about SEK 27 billion were identified as ethical investment in June 1999. Several forecasts also indicate that ethical investment will rise to about SEK 130 billion by around 2003. These funds often have certain (mainly negative) criteria which cover a company's environmental work. As the number of ethical funds has risen, and therefore also the marketing of them, the debate surrounding them has become more intense. Certain critics are of the opinion that the assessments made of companies are based on arbitrary criteria and that marketing these funds is dubious since it often leads to the unjust depreciation of companies that are not in the funds.

How the number of funds with ethical criteria in the United States has increased from 1983 to 1998:



Source: Good Money Inc. USA

Investment companies with environmental profiles

In addition to the rapid development that has taken place on the environmental fund market, other forms of environment-profiled investment options are taking shape. Today, there are several investment companies in Europe that invest their money in accordance with the same principles as sustainable funds. The main difference between an investment company and an environmental fund is that as an investor in an environmental fund you buy shares in the fund, which gives you the right to the equivalent proportion of the funds return. When you invest through an investment company, you buy shares in the investment company itself and thus become a part-owner. The differences for the investor are, among others, that the investment company has a higher risk level on its investments because it is not required to have a minimum number of companies (19) as environmental funds are. Investment companies are also often associated with so-called investment company discounts, which means that the investment company as such (i.e. the basis of the investors returns) is valued at less than the companies included in it.

One example is the Swiss investment company, Sustainable Performance Group (SPG), which, similar to Credit Suisse, uses the consultancy firm, Sustainable Asset Management (SAM), for its environmental analyses. The point of departure is “sustainable development”, which means that you invest in companies whose products generate economic, ecological and social benefits. Using a model that calculates a company’s risks and opportunities based on sustainable development, those companies that are seen to be either “sustainable pioneers” or “sustainable pacesetters” are identified. Pacesetters are identified as large industrial companies that have successfully integrated the concept of sustainable development in their long-term strategies, and through this will gain a competitive edge in the long run. Pioneers are innovative, often rapid growing, companies that work with spearhead technology promoting sustainable development.

A further opportunity for environment-profiled investment is so-called discretionary capital management. This is a question of large-scale investments where the capital manager tailor-makes an investment portfolio in accordance with the investors wishes, where one such wish may be to invest in environmental technology companies or companies that have progressed far in their environmental work. Among others, Credit Suisse offer this service to private investors using SAM’s eco-efficiency model as the point of departure.

The development of environmental funds

It is possible that the environmental fund market is beginning to mature after a decade of rapid expansion in the number of environmental funds. Several fund managers feel that learning is an important aspect of managing an environmental fund. Environmental fund management is a relatively new profession and those that practise it have become aware of deficiencies in the models used and ways of working, which manifest themselves in the difficulties of environmental fund management. Efforts to put these deficiencies right can be seen in the changes made to environmental funds. The number of new funds will no doubt continue to rise, but at the same time existing funds will seek to evaluate, develop and change their investments and/or analysis tools.

A trend that can be identified internationally, and to a certain extent also in Sweden, is a more positive attitude towards analysis. Previously, negative screening has been in focus, i.e. the exclusion of companies in which one did not wish to invest because of environmental and/or ethical/social reasons. An increasing number of fund managers and analysts are trying to identify those companies that are “sustainable pacesetters”, without putting any value on other companies. More and more analysts are carrying out so-called ”stakeholders dialogues” with companies that have been invested in, where the aim is to develop constructive cooperation in order to influence and develop the companies.

Sustainable funds in the future

In a shorter-term perspective, there is a lot that points towards an increase in the total investment in environmental funds. In all likelihood, several more environmental funds will appear on the Nordic market, just as they are doing in other countries. Many people say, however, that more integration of environmental analysis in all forms of financial analysis of companies is necessary. We can roughly perceive two scenarios. Firstly, so-called sustainable funds will gradually disappear due to the fact that environmental analysis will be integrated into all forms of financial analysis. This means that most forms of investment will be preceded by a thorough analysis of a company’s environmental work, and where industry will have become so environmentally compatible that environmental funds will only play a marginal role for companies.

The second scenario is that funds with specific environmental analysis will remain and function as a spearhead and driving-force as there will always be companies that want to be the best in the business when it comes to environmental profiling. This is based on the reasoning that the better the company's environmental work is, the lower the environment-related risks will be, which means higher share value. For this reason, competition will always produce spearhead companies that represent more profitable investment than other companies. This may occur, however, in parallel to other financial investors paying more and more attention to environmental aspects in their valuations.

Environmental technology funds in the future

As previously mentioned, environmental technology funds often have a higher risk level than sustainable or nonprofit ones. This is due to them investing in companies that all operate within the same business area. If there is an economic boom in the area, the fund performs well, but during a general recession, returns fall for the majority of the portfolio companies, and environmental technology funds are hit harder by this than other more diversified funds. The financial crises of late have affected many environmental technology companies. Rapid growth was being forecast in Asia, where in fact the crisis was worst of all. In times of economic recession, it is probable that planned environmental investments will have to stand down in favour of other investments.

The American firm of analysts, First Analysis (FA), whose specialities include environmental technology companies, feels that some, but not all, business areas within the environmental technology sector will see an increased demand for their products and services. This is due, among other things, to many countries both in the western world and in developing countries neglecting infrastructure for example in the areas of wastewater/water treatment and waste management. FA feels that this is also due to more and more companies being privatised after having been state-owned, something which should accelerate accessible markets and growth.

It is also probable that environmental technology funds will be less influenced by the development discussed for sustainable funds, since sector funds as such are interesting from a risk and return perspective.

Appendix – Comparative indices

Certain environmental funds choose to compare the fund's returns to an index. Others avoid doing so, since the manager feels that the fund's investment profile is so unique that a comparison to an index would be misleading. The development of those indices that are used by the funds in this report is reported below. Two of these indices are based on companies and business areas that are environment-related, and they are therefore presented in more detail.

Domini 400 Social Index
This index comprises 400 American companies that meet a number of broad social criteria. The selection is originally made from S&P's 500 index, from which about 150 companies are chosen. Approximately 250 companies that are not in the index are then selected using the same analysis. The companies included in the index may not operate in the tobacco, alcohol, gambling, weapon or nuclear power industries. The companies must also take their social responsibility and maintain positive relations with their stakeholders, work to reduce their environmental load as well as have products that are both of a high quality and safe.

The index includes companies such as McDonalds, Coca-Cola and Toys 'r' Us as well as companies that can be found in certain environmental funds such as Enron and Cisco Systems.

Dow Jones Sustainability Group Index (DJSGI). In September 1999, Dow Jones & Company launched a global index for companies that work proactively with social/ethical and environmental issues. The index has been developed in cooperation with Sustainability Asset Management (SAM), a Swiss consultancy firm. The index is based on an analysis of the 2000 or so companies that are included in the Dow Jones Global Index. Using a questionnaire, which the companies are asked to fill in, those companies that, according to Dow Jones, can be characterised as leading "sustainable" companies, are identified. According to the analysis model used, a "sustainable company" is one that works in accordance with five so-called sustainable principles. These are:

- Technology – development of products and services must be based on innovative technology and long-term efficient use of natural, financial and social resources.
- Executive management – A long-term sustainable company must meet the highest standards of executive management, including organisational ability, company culture and stakeholder relations.
- Shareholders – shareholders' demands must be satisfied in the form of balanced returns, long-term growth, long-term increase in productivity, better global competitiveness and continuous contribution to intellectual capital.
- Industry – the company must be a pacesetter in the business area's changeover to sustainable development as well as clearly communicate its commitment and the results of the new stand it has taken.
- Society – the company must contribute to social welfare by being able to adapt to

rapid social, demographic and cultural changes as well as satisfy the need for lifelong learning.

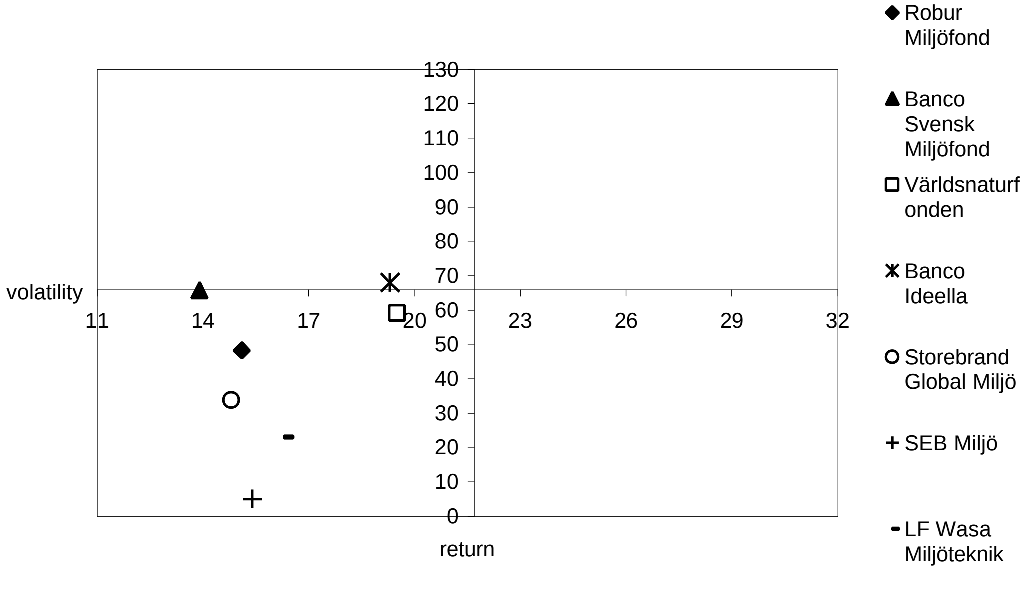
The index currently consists of about 225 companies that represent around 70 business areas in 30 different countries. The questionnaires that are sent out have been customised to the business area and are relatively comprehensive. Each questionnaire comprises about 50 questions. The rate of reply in the survey is however not known.

Appendix: Return indices

Comparing environmental funds to each other can be somewhat misleading since they use different analysis models and investment criteria. Bearing this in mind, it may be of interest to see how funds have performed in comparison to their volatility. In the graph below, the returns and risk levels of those funds in this report are shown in those cases where information on volatility has been available, that is for Banco Svensk Miljöfond, Banco Idella Miljöfond, Robur Miljöfond, WasaLänsförsäkringar Miljöteknikfond, SEB Miljöfond, Carlson Världsnaturfonden and Storebrand Global Miljö.

When managing a fund, it is desirable to achieve high returns in combination with low risk, i.e. low volatility. The x-axis shows the fund volatility and the y-axis shows the returns. It is therefore desirable to be in the top-left hand corner of the diagram, with as much return as possible, and with as low risk as possible. The returns for Affärsvärlden's general index (AFG) 1999 have been put in the graph as the y-axis, and volatility for the index as the x-axis. AFG is not normally used as a comparative index for the environmental funds mentioned in this report. It should also be noted that there may be a certain discrepancy in the calculation methodology used to calculate the funds' volatility.

Volatility/return environmental funds- Affärsvärlden's general index



REPORT 5080

Nordic Environmental Funds 1999

Environmental work in the financial sector has undergone a marked development over the last few years. The work of banks and insurance companies in the environmental field manifests itself in three actions. Firstly, they are reducing their own financial risks by evaluating the environmental risks of their customers. The goal of several banks is to integrate environmental issues into their credit granting procedures, and insurance companies are striving to incorporate environmental aspects in their procurement of claims assessment services and to include environmental risks when calculating insurance premiums. Secondly, they are adapting their own activities to make them more environmentally sustainable by, for example reducing energy and material use in their offices. And thirdly, they are offering their customers environmentally compatible products, of which environmental funds are as yet the most obvious example. Environmental funds can therefore be said to be part of the overall environmental effort being made by banks and insurance companies.

This publication is a survey of all the Nordic-based environmental funds as well as a representative selection of international environmental funds. A total of 20 funds are described.

The report is a follow-up to a previous report entitled "Nordic Environmental Funds 1998" and aims to orientate the reader as to which funds exist within this segment of the market. Information as to the country, year of establishment, fund capital, volatility, geographical limitations, comparative index, fund company and fund manager is given for each fund.