

THE GREENING OF FINANCIAL MARKETS¹

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EXECUTIVE SUMMARY

Since the 1970s, public awareness of environmental problems has led to environmental laws based on command and control regulations. Another important development which harnesses market forces efficiently has been the development of environmental liability legislation. Environmental liability has made risks real for companies and investors. Although it has made for losses, it has also created significant business opportunities for innovative companies with good management. Hence the emergence of corporate environmentalism. Leading corporations are adopting environmentalism and corporate social responsibility as drivers of brand differentiation, product development and competitive advantage.

Though the financial community has been a laggard, particularly as regards investment portfolios, some major banks, insurers and investment managers are now at the point of making the further business link from corporate environmentalism to sustainable finance. Sustainable finance will mean not only that investors will disinvest in some stocks they would otherwise hold but also that they will seek out and be overweight in firms which are eco-efficient and gain competitive advantages through good environmental and social practices and image.

This process is being accelerated by government acting in creative ways. One way is demand creation through reporting legislation which obliges pension funds to state their policy on socially responsible investment; for example, recent UK legislation. Another way is the application of environmental screening to government-controlled funds, for example, as being considered by the Ministry of Finance for the Norwegian Petroleum Fund.

In short, in the US and Europe we are beginning to see the outlines of a virtuous circle, connecting public concerns, environmental legislation, corporate environmentalism and financial markets. The concept of fiduciary responsibility is in the process of being expanded to include the broader interests of the owners of capital, beyond short term profit maximization at any social or environmental cost.

This paper describes this process, identifies particular barriers to sustainable finance in developing markets, and on this basis proposes policies and instruments for surmounting these barriers, including:

- (a) the introduction of appropriate liability legislation;
- (b) the adoption of environmental reporting requirements for initial public offerings and listed companies;
- (c) the introduction of expanded fiduciary responsibility for pension funds;
- (d) the introduction of environmental and social screening for government funds; and
- (e) the creation of investment objects designed for international investors which satisfy certain sustainable finance criteria.

I. INTRODUCTION: CORPORATE ENVIRONMENTALISM
AND FINANCIAL CONSERVATISM

The dangers of environmental degradation have been recognized throughout history and in different cultures². Concern for nature has been reflected in Western philosophies in different ways, whether nature is seen as independently valuable in itself or as a resource which is instrumentally valuable

¹ I wish to thank Thomas Hornburg, London School of Economics, for his research assistance, insightful comments and editorial help with this paper.

² The Cherokee, for example, believed in the Seventh Generation Principle, namely, that whatever decisions or actions affected the tribe as a whole should be taken with a view towards their consequences on seven future generations. This principle applied directly to how to live with and treat the environment. Oehl (1972).

for mankind.³ But it is only during the past 25 years that the importance of the environment has gained prominence as a political and economic issue. In North America, Northern Europe and Australia, we have seen a dramatic change in corporate environmentalism.⁴ This change follows from two important developments.

First, there is the issue of public concern. Books like the Club of Rome's *Limits to Growth* (Meadows, Meadows and Randers, 1972), Schumacher's *Small is Beautiful* (1973), and Carson's *Silent Spring* (1962) galvanized growing public awareness. During this decade, several catastrophic events were widely publicized and became engraved in public conscience: Three Mile Island (1979, USA, cost \$2 billion), the Sandoz chemical spill (1986, Basle, cost \$50 million)⁵ Chernobyl (1986, Ukraine, cost \$14 billion), Exxon Valdez (1989, Alaska, cost \$7 billion), brought to life the potential risks (Business and Environment Programme, 1997).

Second, in connection with the growing importance of the environment in local and national politics, governments enacted legislation which linked environmental risk to financial risk. The social and political context determining the environment issue became significantly broader and itself an important factor in bringing about corporate policy change. Hoffman (1997, 197) states that "Evolving perspectives of what constitutes heresy and dogma in a given industry depend not just on costs and regulation but on the full social, political, and economic system of which the industry is a part."

The first industries to embark in large scale environmental overhaul were the heavily polluting industries which bear the brunt of pollution laws and regulations: chemicals, manufacturing, the smokestack process industries, oil refiners and car makers. This trend began in the eighties and continues today. Food manufacturers, electronics and a variety of manufacturing and service sectors, including hotels⁶ and restaurant chains⁷, have started changing their approach to environmental action in the course of this decade. Many companies have responded forcefully and with remarkable creativity—IBM, Novartis, 3M, SAS, Skandia Hotels, Cellulosa de Aracruz, Electrolux, and the company I work for, Storebrand, to name a few. A number of business associations were formed to address the needs of information exchange and development of best practices and standards, such as the International Chamber of Commerce's International Environmental Bureau (IEB), the World Environment Council (WEC), and the World Business Council for Sustainable Development (WBCSD). In the UK, organizations like Business in the Environment and The Prince of Wales' Business and Environment Programme at Cambridge have served to educate and mobilize executives. And annual Environmental Reports have become standard issue for multinational companies wanting to develop a socially responsible brand image.⁸

In short, corporate environmentalism is becoming mainstream practice. Environmental policies, in accordance with regulations and beyond it, are no longer an exception. They have become standard practice in many key industries.

However, the financial sector has not kept up with these changes in corporate environmental policies. Most banks, insurers and pension funds have been slow to acknowledge and respond to environmental risks as potential financial risk. We have been dogged by myopia and scepticism, as well as a genuine lack of analytic tools, comparable data, and the absence of environmentally-trained investment analysts.

³ For a review of environmental ethics and philosophies of nature, see Atfield (1994); Zimmerman and others (1993).

⁴ For a good history of corporate environmentalism, see Hoffman (1997).

⁵ The Basle fire is a particularly interesting case as it has practically all the elements to illustrate what moves a corporation to really change. Basle is a small town but it is home to major chemical companies. These giant companies (Sandoz, Ciba, Hoffman) stem from silk dyeing centuries ago, in the days of the silk trade with the East. They located in Basle because of its location on the trade routes and its river, which provided a natural and easy waste dump. Progress, prosperity and pollution went hand in hand for centuries. The chemical fire at Sandoz shocked the city and its people, because the plants are in the city, where the senior managers, scientists, workers, all live. This immediacy is probably an important reason why these companies developed such a proactive approach to accident prevention and pollution prevention ever since, often going beyond the requirements laid down by regulations.

⁶ Most notably the Scandic hotel chain, based in Sweden.

⁷ McDonalds has gone from styrofoam to paper packaging, mostly in response to activist demands.

⁸ Whereas in 1990 only a handful of companies issued environmental reports, in 1998 and 1999 over 2000 companies are issuing them.

Most professional investors believe that environmental and social concerns are irrelevant or detrimental to generating good investment performance. Very few actually read corporate Environmental Reports. As the *Tomorrow* magazine (No. 4, 1999, p. 24) summarily states in their recent issue on finance and the environment, “financial research analysts remain sceptical about the value of strong environmental performance.”

Most pension fund managers and trustees of charitable foundations have claimed that they cannot change their investment policies to integrate environmental and social dimensions without at least a three year track record of investment performance to prove that it will not impact returns negatively.

The lack of databases, measurement tools, commonly accepted standards and benchmarks has been a real problem. For those of us who have experimented and developed prototypes, it has been an additional cost factor. Today, however, this is less of an impediment, as a number of environmental and social rating providers are now vying for business in this field, and are offering rating systems based on eco-efficiency and other indicators. Saracin Bank, Innovest, Eiris, SERM, IRRC, Sustainable Asset Management (SAM), Storebrand and others have developed systems and applications that work. Now that various environmentally-screened funds have achieved competitive three-year track records, it is becoming clear these results are not just luck but are systematic, measurable and sustainable. The beginnings of financial environmentalism are in sight.

This paper outlines the evolution from grass roots environmental awareness to the emergence of capital market environmentalism in developed markets. The purpose is to describe this process in order to derive lessons which might be applied to emerging economies. My aim is to identify action-oriented policies and instruments which could help speed up the process in emerging markets. The pace of environmental devastation in developing countries requires reforms that will help business leapfrog over stages that have taken twenty to thirty years in developed markets. Can we build on existing mechanisms to accelerate the necessary changes? Which reforms and practices would be most effective? What should be emphasized?

II. LIABILITY LEGISLATION AS A CATALYST FOR SUSTAINABLE FINANCE

In the past five years a few major financial corporations, banks, such as SBC, NatWest, Bank of America, insurers, such as General Accident, Swiss Re, and money managers, such as Salomon, Skandia, Storebrand, as well as some Swiss private banks have begun to internalise the fact that environmental matters are money matters. A noteworthy and promising development are the two voluntary initiatives of banks and insurance companies, the UNEP Banking Initiative and the UNEP Insurance Industry Initiative, which have gained over 200 signatories worldwide.⁹ These initiatives have served as catalysts for the exchange of experiences and ideas.

What is really behind this change? Why is it happening? First we must acknowledge the role of legislation in creating the conditions for market demand. In what follows, I show how legislation can serve as a catalyst for change in financial markets, how bankers, insurers and investors respond, what it means to do environmental screening of investment portfolios, and point out two innovative actions by government that will, in my view, serve to change investment practice significantly.

A. Legislation and Response

The importance of legislation in controlling pollution by requiring industrial remediation or imposing fines is broadly recognized. But beyond the command and control aspects of legislation there is a less acknowledged force: the power of liability. Financial liability is created when environmental legislation identifies a responsible party who must pay for an environmental harm, and defines a cost or an indemnification to be made. A crucial extension is when legislation makes a lender or owner co-responsible. When environmental legislation makes the link between an environmental harm, an economic activity, and the financiers to that activity, there is then financial motivation for the financial sector to act responsibly. The first step, the *sine qua non*, is therefore to put laws in place that make the link. Once the

⁹ See UNEP website for text of Declarations, list of signatories, and other news. Also see Joly (1997).

conditions are defined in legislation, then the financial risk to lenders, insurers, and investors is actualised and begins to be accounted for. Capital will seek to avoid the risk, will reflect it by discounting the price of assets at risk, or will increase the cost of capital. Pollution may just become too expensive.

Superfund legislation in the US, which penalizes owners, lenders and insurers of contaminated land, does just that. When laws effectively put a cost on pollution and identify a responsible party, this is a very powerful tool in a marketplace economy, through both its direct and its ripple effects.

To understand the environmental importance of this link, simply think of all the instances where environmental harms, like global warming, overfishing, or deforestation, are not internalised by legislation in the cost of a product or production process. Market forces need governmental action because markets alone do not reflect or internalise environmental costs and risks into the economy.

To understand the financial importance of this link, think of anti-pollution legislation such as the Clean Air Act, Superfund, and asbestos remediation and the financial liabilities in the billions of dollars that these pieces of legislation have given rise to. These ongoing systemic liabilities, including taxes on air and water emissions, leakage from pipelines, underground gasoline storage tanks and toxic waste dumps, are in addition to, and distinguishable from, the single-event liabilities emerging from major events of accidental pollution, such as oil spills from shipping accidents. Environmentally risky financial engagements (be they loans, asset purchases, asset sales, insurance coverage, or stock purchases) suddenly needed to be carefully qualified or even avoided, on purely financial grounds, to avoid losses. Thus, many banks in the US, for example, stopped making loans to gasoline stations at risk from leaky underground storage tanks and stopped making mortgages against real estate assets at risk from ground pollution which occurred through the actions of earlier owners. Current owners became responsible for pollution under earlier owners, and made lenders, under certain conditions, co-responsible for clean-up liabilities. In some cases, the costs of cleanup exceeded the value of the asset, leaving the lender with a double hit. Such risks have caused buyers to get an expert opinion as to existing or potential pollution liabilities in connection with asset or company acquisitions; in certain cases deals have had to be re-negotiated or cancelled.

Leading insurance companies took notice of the implications. In 1995, at a meeting of CEOs of multinationals who are members of the WBCSD, Åge Korsvold, CEO of Storebrand, said: "Existing environmental risks translate into direct financial risks as a result of legislative requirements. For example, remediation of underground fuel tanks, oil and chemical spills at sea or on land, contaminated ground associated with real estate, investments in plant and equipment to resolve soot and sulphuric acid air problems, investments in technology to avoid or preclude toxic emissions from process industries, the viability of fertilizer and pesticide industry products, and how we can best manage our own sizable forestry holdings in Norway; all these items can and do have direct financial impact to our portfolios and our bottom line. In addition, since businesses and consumers are increasingly looking at the eco-efficiency aspects of products as they make purchase decisions, we as investors have to track how this affects the competitive strength of companies we invest in or lend to."

The following year, in 1996, Storebrand put in place its Environmental Action Plan and justified it on three grounds. For one, the company built on its recognition that environmental risk is financial risk, particularly in property and casualty insurance, and particularly in the areas of storm damages, flooding, toxic releases, ship insurance. This resulted in adjustments to insurance underwriting and investments in accident and pollution prevention. The idea, simply stated, is that loss prevention increases profits, and so we invested in various environmental loss prevention programs to teach our industrial clients how to be more careful.

Second, we wished to be more responsive to our customers' wishes and increase their loyalty by strengthening our brand image. We did a survey among our customers and found that over 40 per cent felt strongly that insurance companies should engage in socially responsible activities like environmental improvement, loss prevention and violence prevention. We put an action plan in place for this.

Third, we wanted to try to devise a way to reflect environmental considerations in fund management, without sacrifice to financial performance.

If one side of the equation is risk, the other side is opportunity. Along with the recognition that environmental risk entails financial risk came the realization that environmental risk can also create financial opportunity. Innovative investment managers decided to explore how they could improve the financial performance of their portfolios by eliminating risky enterprises and including those that gained

competitive advantage by having better control over environmental risks by being more eco-efficient and by creating product advantages, companies such as Michelin, Volvo, Electrolux, and Scandic Hotels.

Thus was born environmental screening in investment management, which is addressed in more detail below.

B. Environmental Screening of Investment Portfolios

If pollution, be it accidental or systematic, affects the balance sheet by creating liabilities, it perforce has to affect, sooner or later, company valuations. This realization has given rise to a new class of mutual funds, eco-efficiency funds or sustainable development funds which seek to invest in companies that meet certain well-defined sustainable development criteria. The first two funds of this kind in Europe, which seek to apply positive screening criteria rather than negative screening, were Bank Saracin's Environment Fund, created in 1995 and Storebrand's Environmental Value Fund, created by the author in 1996. In 1998 SBC and Credit Suisse began to implement sustainable development criteria into some client portfolios. Around the same time, two Swedish banks also launched environment funds (SEB and Foreningsbanken). Today, banks and insurance companies in Germany, France and the UK are racing to copy the idea. Why? Because mainstream banks are sensing that pension funds and individual investors may become interested in sustainable development as an investment theme.

Let us consider how environmental issues can affect stock price and then see how one can operationalize this in practice to do actual stock picking for investment portfolios. How does stock price respond to environmental issues?

If investors perceive a company to be environmentally at risk, then its stock price will be negatively affected, other things being equal.¹⁰ The investor's perception as to whether a company is at environmental risk depends itself on a wide variety of elements¹¹:

- (a) the realities of its pollution emissions and direct costs associated with their remediation or control (e.g. costs of plant retrofitting);
- (b) the life cycle pollution impacts of its products and their associated costs or the extent to which they create competitive advantage or disadvantage (e.g. relative advantage of manufacturing fuel-efficient cars—the Japanese strategy in the seventies, or energy-efficient appliances—Electrolux);
- (c) the competitive advantage of certain products (e.g. recycled paper that handles better in copy machines, plastics that can be recycled, non-toxic anti-fouling paints for ship hulls, etc.)
- (d) what the environmental NGOs believe on specific single issues and how powerfully they can mobilize public opinion (e.g. what Friends of the Earth thinks about PVC, what Greenpeace thinks about sinking an oil platform, what the Greens think about GMOs, what Naturvernforbundet thinks about herbicides, etc.);
- (e) what the general press writes about and what the financial press picks up;
- (f) the extent to which investors think negative NGO comments and negative press on a specific issue will affect a company's market share, marketing costs, product development pipeline, client or supplier relations, or general reputation;
- (g) the impact of class action suits or of retroactive government actions;
- (h) the impact of existing and new environmental regulations or treaties;
- (i) the extent to which an investor thinks other investors will act or not on available information. This is the magnification effect of marketplace behaviour. If I think an issue/risk is really not an issue/risk but think other investors will react as if it were a real issue/risk, and if I can act in anticipation of their reactions and profit thereby, then my investment style might lead me to act, even though I think the issue at stake is without merit. Most portfolio managers don't care

¹⁰ See discussion and literature review in Joly, Knecht and Ross (1997).

¹¹ For a good comprehensive overview of environmental factors in industry, see Fussler (1996).

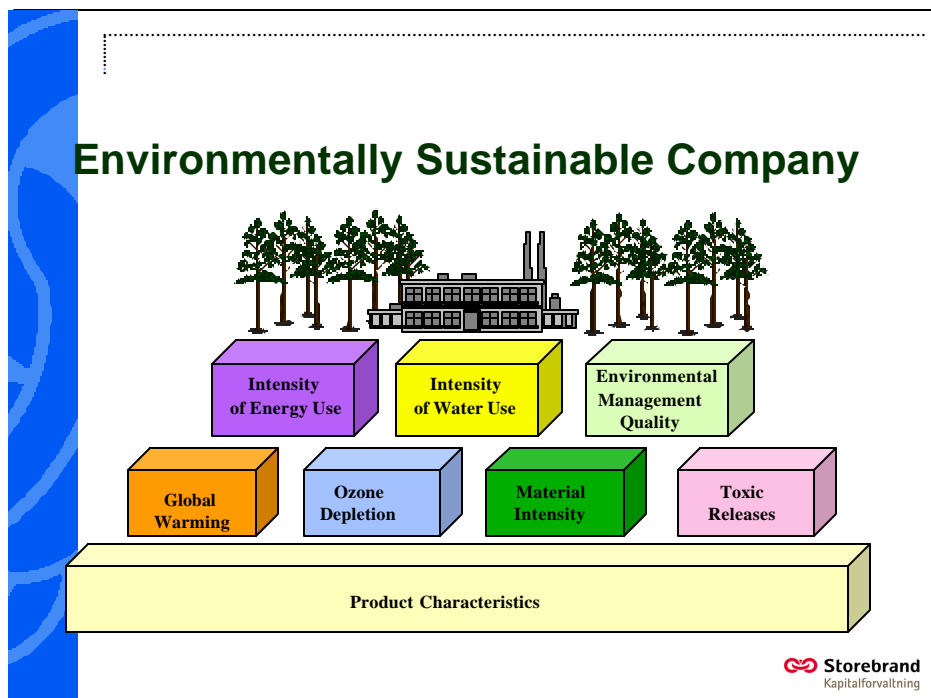
whether environmentalists are correct on a particular issue. They just want to be under-or-over-weighted in the right stocks. Being “in the market” and having to deliver competitive returns means that managers of ethical or environmental funds find themselves acting from time to time much more in line with the public’s perception of risk than with objective risks as such. (Whether this form of political correctness is ethically sound makes for an interesting but separate discussion.)

Needless to say, the extent to which a company’s environmental image and risk can become an important element in its stock price varies from industry to industry. In insurance underwriting, for example, the stock price of several British insurers practically halved as the extent of their Superfund liabilities became known. In biotechnology, Monsanto’s stock currently trades at a discount of about 25 per cent due to public worries about how the company is handling the GMO issue , and we find numerous examples in the shipping and construction industries. Other industries are perceived, rightfully or not, as low polluters and at low image risk, an example being the high tech industry. This notwithstanding, there are on the whole, in several important sectors, a variety of negative and positive items that are factoring into the image and environmental risk assessment of a company, and that hence determine their pollution discount or environmental premium, (De Simone and Popoff, 1997).

Let me now explain how environmental screening can work, by illustrating with the Storebrand Environmental Value Fund, which I created over three and half years ago.

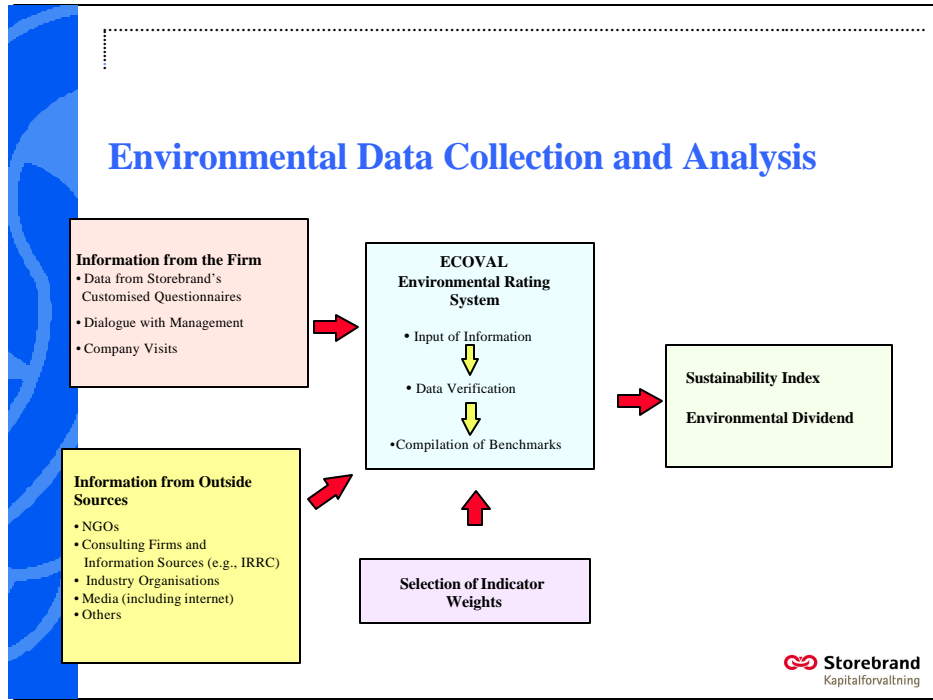
The point of departure is the concept of eco-efficiency. This concept was formulated by the WBCSD in 1995 and is defined as followed: “the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life cycle, to a level at least in line with the earth’s carrying capacity” (Joly, 1990).

We took this definition and operationalized it by focusing on eight criteria, as depicted in the following slide:

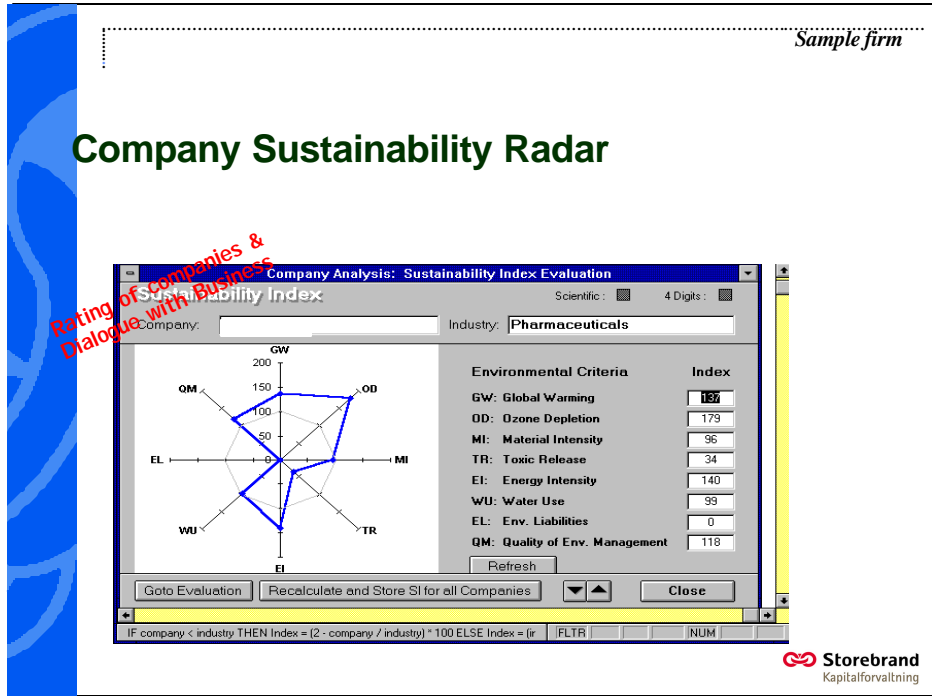


We collect data from companies about their performance along these eight criteria of eco-efficiency, relative to company size. Tons of toxic releases, energy and water use, etc., are reviewed relative to sales volume. The important thing is to compare how a company measures up relative to its competitors in a particular industry, so as to be able to create a comparable ranking to select best-in-class companies.

Environmental and some social information on companies is collected through a variety of ways, principally through our detailed questionnaires, but also from company reports, NGO reports, specialist studies, and conversations with management.



Our analytic procedure is aimed at constructing benchmark indicators within each industry for each of the eight eco-efficiency criteria we focus on, which then allows us to see how each company ranks relative to its competitors in an industry. Each industry has its own factor weightings, thus reflecting the greater importance of some criteria over others in given industries, for example, toxic emissions are critical for the chemical industry, while environmental lending risk analysis is critical for banks.



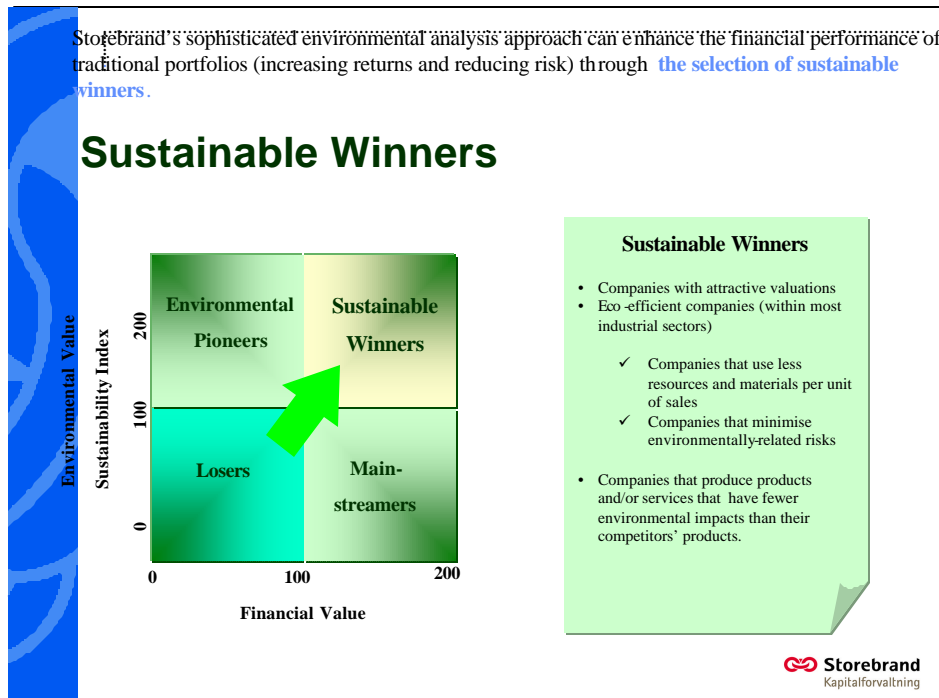
This procedure gives us the ability to reach our goal: the construction of a globally diversified portfolio of best-in-class stocks, representing most industrial sectors:

“Best in class” Environmental Fund

- **Invests:**
 - ✓ Firms in nearly all manufacturing and service sectors whose environmental performance is among top 30% of their respective sectors and have attractive financial valuations
 - ✓ Typically large, multi-national firms
- **Excludes:**
 - ✓ Companies in the tobacco Industry
 - ✓ Companies that commit “serious” human rights violations
 - ✓ Companies engaged in the manufacture, distribution & sale of anti-personnel mines
- **Additional Criteria Placed on:**
 - ✓ Companies engaged in the nuclear power industry
 - ✓ Companies engaged in the manufacture and sale of GMOs

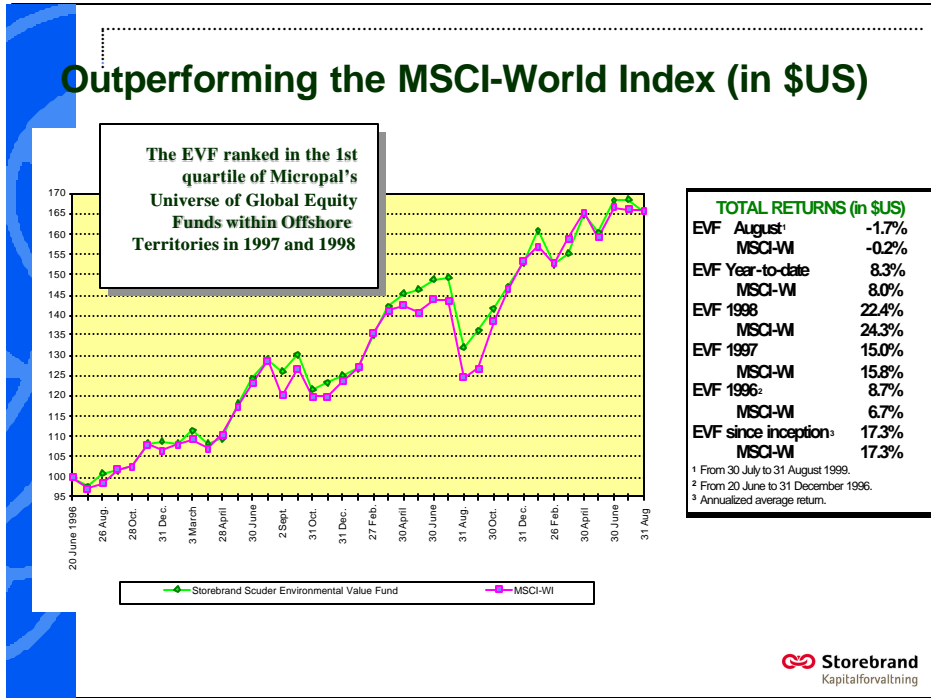
Storebrand
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The purpose of the analysis is to be able to identify what we call “sustainable winners”, companies that are eco-efficient and have environmentally sustainable products.

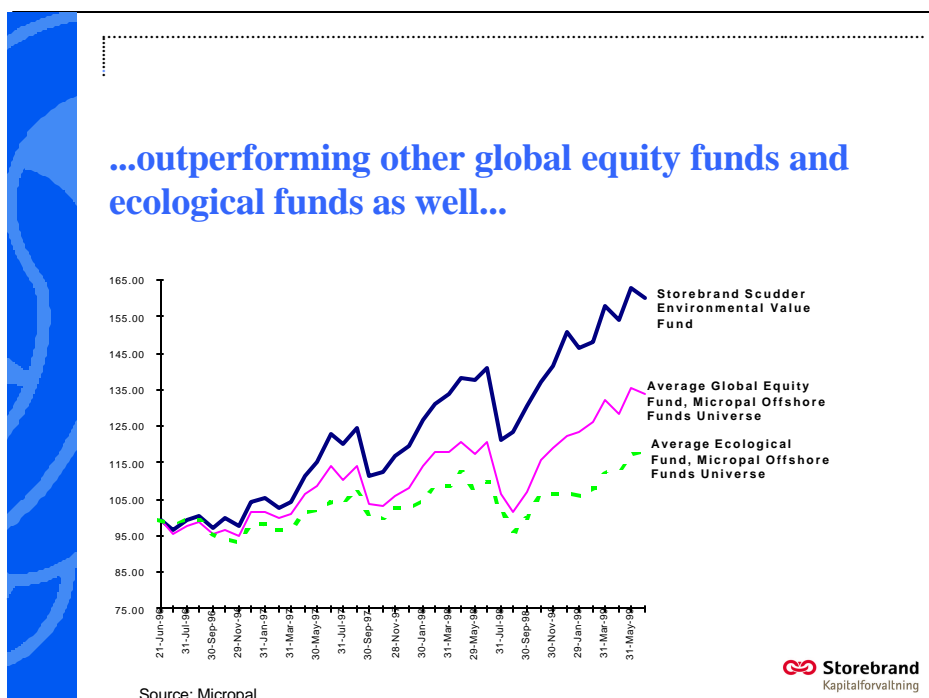


In addition to being environmentally sustainable, the companies we select must be financially attractive and fulfil our expectations for stock price appreciation. The point is to create a portfolio that reflects good environmental performance and at the same time achieves competitive investment returns.

What kind of investment results does this procedure yield? Consider the following two graphs which show the fund's performance since inception three years ago, relative to the Morgan Stanley World Index which tracks performance of stock markets worldwide. This is the benchmark against which we measure our fund:



In the three years since its inception, the Storebrand Environmental Value Fund has delivered over 60 per cent return on investment, after deducting all fees and costs. How does this compare relative to global equity funds that do not undertake environmental and social screening? The following graph shows this:

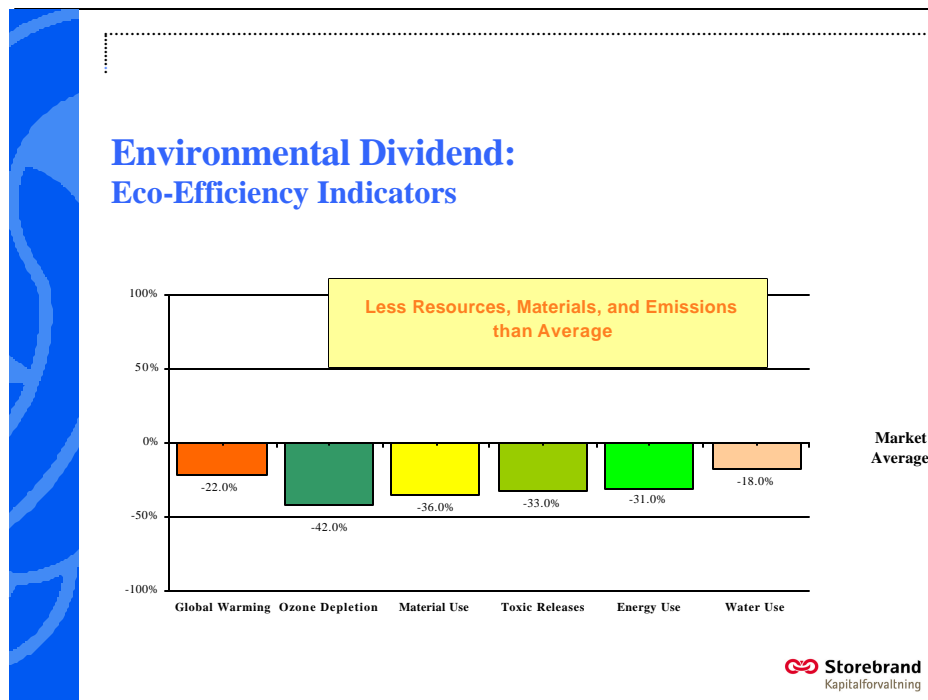


This graph shows two things:

- (a) the Storebrand Environmental Value Fund outperforms most traditional global equity funds; and
- (b) most environment funds underperform normal global equity funds.

How should we interpret this finding? First, I believe part of the reported underperformance of most environmental funds is due to the fact that the Micropal universe of ecological funds is heavily weighted with green funds which have performed less well and that the performance of the eco-efficiency/ sustainable development funds tend to do relatively better. Second, few environmental screening methods are well-integrated with sophisticated stock-picking or stock index-tracking methods. I believe there is nothing inherent in environmental screening itself that tends to lead to financial underperformance, but rather that environmental screening needs to be operationalized correctly and connected with the best modern portfolio construction techniques. When this occurs, as in the case of Storebrand's fund, the synergistic effect of good eco-efficiency screening and good portfolio construction and stock-picking creates overperformance. When it does not occur, the underperformance can be explained equally well by the mediocrity of the investment manager's financial analysis and portfolio construction.

A relevant question is whether an environmental fund of this nature is good for the environment and not just good for its investors. As part of our analytics and reporting, and given the robustness of our database which comprises over 800 companies, we are able to demonstrate the extent to which the investments in the fund pollute less than a traditional global equity portfolio typically, does. We call this report the Environmental Dividend:



To the best of my knowledge, Storebrand's Environmental Value Fund is the first of its kind to have the capability to report, quantitatively, its environmental performance along with its financial performance.

What we see, then, is that some investment managers have developed tools and techniques for incorporating environmental considerations into investment portfolios, but that the large pools of money in pension funds and life insurance rarely seek to utilize these tools and techniques. This is unfortunate because corporate environmentalism and its virtues will not become truly sustainable until capital markets recognize and reward its value-enhancing aspects. What will bring this change about? As I indicate below, reporting requirements initiated by the UK government are one way of making change happen.

C. Private Sector Innovation and Public Sector Demand Creation

The private sector has created the environmental screening products. But pension funds have not taken them up, due to their conservatism and other reasons. Two recent developments, one in the UK and the other in Norway, indicate how governments can change this attitude and act as a market catalyst by creating demand pull.

The Norwegian Petroleum Fund was created by the Norway two years ago to manage the surplus from exploitation of the country's vast oil and gas reserves. It is being put aside to fund future social security pension shortfalls and is invested in its entirety in foreign stock and bond markets. The current government wishes to integrate environmental and, if possible, social values into how these funds are invested. To this it is in the process of creating a \$150 million Environment Fund to test the concept. Since the Petroleum Fund will total \$30 billion in the year 2000, this test, if positive, has the potential to lead the way.

The UK government is also acting in an innovative fashion. Acting through the Pension Act (1995), it will require that from July, 2000 all private sector occupational pension schemes consider social investment within their Statement of Investment Principles. I believe this will prove to be a watershed event, even though it has received relatively little public notice, even within the UK. A number of the larger UK banks and investment managers are moving to develop environmentally and socially-screened fund products to meet the market need which this legislation is expected to create.¹²

There are three main reasons, under this new requirement, why pension schemes may adopt a social investment policy. First, to reflect an employer's own values on the environment or social concerns. Second, because they see ways in which ethical, social and environmental factors can affect risk or return—as discussed above. Third, to reflect what they understand to be the views of scheme members.

The regulation requires occupational schemes to disclose two things: the extent to which social, environmental or ethical considerations are taken into account, and the policy directing the exercise of rights (including voting rights). Trustees are likely to be given a year in which to produce their ethical statements.¹³

Unlike the private sector, public sector investment is not governed by the Pensions Act (1995) but by secondary legislation and the Superannuation Act (1972). Therefore the Public Sector was not required to publish a SIP on Social, Environmental or Ethical issues. However the Government has gone into consultation (ended on 20th August, 1999) to amend the Superannuation Act (1972) which will require the public sector to fall in line with the private sector on SIPs.

A number of the key councils have already implemented social investment policies. A good example is Nottinghamshire County Council which has just awarded £50 million to a City investment manager for Social Investment Purposes. Many other councils are actively looking to implement a social investment policy, although, at present, only between 15-25 have actually taken steps towards implementation. Most councils are, in the main, waiting to see what happens and are letting others take the first step. In this they are in line with many in the private sector.

¹² I am grateful to John Gummer, former Secretary of State and Cabinet Minister of the UK, and currently Member of the European Parliament, for information herein concerning this legislation and its implementation, in conversation and correspondence with the author.

¹³ At present less than a handful of company pension schemes consider social investment in their Statement of Investment Principles, and include Sainsbury, Body Shop, and British Coal.

The UK Social Investment Forum, which has strong Parliamentary links, has acted as a pioneer in this field and has drawn up guidelines for the creation of a social investment policy for its members which include a number of the key local authorities.

- (a) Develop a policy for integrating the ethical, social and environmental dimension into the investment strategy;
- (b) Assess your investment managers on their ability to take social and environmental performance into account in stock selection and to influence companies towards best practice; ensure that they don't act counter to long-term corporate social responsibility. When you consider changing investment managers, include these aspects in your criteria. Ensure that your professional advisers can make informed recommendations on social investment;
- (c) Exercise your voting power to encourage responsible behaviour;
- (d) Review the portfolio for unacceptable stocks and exclude the very worst, or invest just a small percentage of the fund socially and assess the resulting performance;
- (e) Integrate the social investment dimension into your venture capital and property investments as well as your equities and bonds.

From an ethical point of view, it is interesting to note the reasons allowing pension schemes to take social responsibility, environmental and ethical criteria into consideration as well as consistency with employer values, financial reasons, and consistency with employee values. Furthermore, it is worth noting, from an ethical point of view, that the requirement is to consider, not to implement. Permission is given, action is not imposed. One should put oneself in the position of a trustee and consider whether and who to give priority to the explicit and implied best interests of the pension scheme participants. As boards discuss whether and how to consider social investment, they will inevitably discuss various normative claims as regards the fiduciary responsibility of a trustee, of a principal, and of the investment manager as agent.

III. SURMOUNTING BARRIERS TO ENVIRONMENTAL SCREENING AND SOCIALLY RESPONSIBLE INVESTING

I have argued above that environmental screening is sound practice because good environmental performance reduces financial risk and may enhance overall corporate competitiveness. But there are additional difficulties and factors to be considered beyond those already noted.

The investment community has generally resisted environmental and social screening or (SRI) on ideological, financial, legal, and operational grounds as follows:

- (a) Capital should have only one goal, yield maximization. In this view, propagated for instance by Chicago economist Milton Friedman, SRI conflates capitalism with socialism;
- (b) Fiduciary responsibility means maximizing profit within the extent of the law and acting as a "prudent man" (as interpreted by US law); it does not mean being a good Samaritan. Any considerations that lower returns are inappropriate. (This is what I call the traditional or narrow view of fiduciary responsibility.) SRI means restricting the universe of investment choice which means less diversification with higher risk. Too strict screening leads to too little diversification. That is why SRI generally lowers returns; and
- (c) SRI is at worst impossible to do in practice, because it involves too much subjective value judgment, there are no standards, there is no way of knowing where to draw the line on what is ethical or not. It is impossible to do with index-tracking investment. Even if it were possible, it would require lots of extra time, manpower and other costs, which makes it expensive relative to traditional investment practice.

These seem like rather strong arguments and many people believe them. Are they wrong? I do not want to spend time on the more extreme version of free market capitalism, other than to point out that whatever merits it might have as dogma, it is not true in reality. Companies that act following this prescription end up hurting themselves in public opinion, antagonize suppliers and customers, attract NGO attention and animosity and end up with less profits than if they acted somewhat responsibly, even when it means taking on some additional costs near term. Short-term profits today can mean long-term losses

tomorrow, particularly if it means ignoring environmental liabilities. In today's world, the only way a major corporation can make long-term profits is by understanding social forces and working at maintaining a positive reputation, and that is acquired only by behaving as a responsible corporation. The age of legitimacy for the sweat shop is over. The risks and costs of an environmentally and socially ignorant corporate policy are just too high. The socially ignorant corporation antagonizes consumer organizations and consumers, is persecuted by the press, draws the attention of regulators, and misses out on sustainable market opportunities. It becomes its own worse enemy.¹⁴

However, the second issue, the issue of the fiduciary reservations about SRI, ought to be taken seriously. As shown above, the performance of the Storebrand Environmental Value Fund is within the top quartile among global equity funds. Other similarly constructed funds, like KLD's US funds, also perform in line with or better than the indices. But it is also the case that quite a few SRI funds do not perform well.¹⁵ The real question is to understand why. I suggest the reason they do not perform well is not because they do SRI screening per se but rather because they either fail at tying SRI screening in with good portfolio construction and good stock-picking or have SRI screens that are too restrictive. We are just at the start of developing cleverly engineered SRI funds. That does not mean the category is flawed, just that some of the early experiments were not as well-designed as others. It is too early to expect broad empirical competitive performance from the SRI category, and it is likely the category will, in the next 5 years, evolve to average returns in line with traditional equity fund average returns. In the meantime, investors in SRI funds will have to very carefully consider the nature of the screen and the quality of portfolio construction and stock picking. But if they are willing to do so, they will find and be rewarded by funds that meet their financial targets even taking into account the additional charge for the cost of doing SRI work. The moral benefit of doing well while investing for good comes as an important added value.

In practice, on a cost-benefit basis, it is possible for investors who do their homework to invest in SRI portfolios without undue risk of losing money as compared to average fund performance.

What about the third issue, the question of the subjectivity of SRI evaluations? Does not the indeterminacy of ethical debate and the difficulty of knowing where to draw the line vitiate the attempt? Subjectivity ought not be seen as the decisive issue here, because as investment analysts we are not afraid to make subjective judgments about the quality of a company's management, the competitiveness of its products or the likelihood of it being taken over at a premium. We know full well that beyond the financial reports, which after all communicate the past and not the company's future, we make stock picking decisions often based on our informed subjective assessments. In this sense, making informed subjective assessments about a company's labour relations, its community affairs programs, its minority employment and promotion practices, its subcontractor criteria, its potential environmental liabilities, the legitimacy of its dialogue process with NGOs, the way it tackles corruption, and the like, these judgments are subjective in the same sense and as valid.

So let us focus on what is really at issue, whether it is appropriate for a pension fund or other institutional investor who acts on behalf of the owners of money (the employee or the citizen in the case of a pension fund, the long-term saver in the case of an insurance company or mutual fund) to pay attention to the interests of the owner in a wider perspective. In other words, is it appropriate to include considerations of value to owners beyond the attainment of a market return on investment?

In the case of long-term savings and pension funds, the interests of owners could without too much imagination, be understood to include their social and environmental interests in addition to their purely financial interests, insofar as the purpose of money is instrumental rather than an end in itself and if and when the process of creation of wealth is contradictory to the eventual enjoyment of such wealth. This point of view is captured by two rather commonsensical rhetorical questions: what good is money if it causes harm to its owners? What good are competitive returns in collective investment instruments like

¹⁴ Brent Spar, Terminator Gene, and Shell in Nigeria are symptomatic of the harm that can be done by pressure groups to corporations who fail to understand the social psychology surrounding their actions.

¹⁵ See comparison table in *Tomorrow Magazine*, No. 4 Volume 9 July-August 1999, p. 17, which shows that among the top ten US SRI funds in terms of size, eight did worse than the S&P 500, while two did better.

insurance policies and pension annuities if the underlying companies do things that significantly deteriorate public health or degrades the quality of life of the public?¹⁶

Money is an instrumental. It is simply a means of exchange to acquire things or experiences that fulfil needs or satisfy psychological wants, including aesthetic pleasure. In this sense, money is the medium for acquiring those aspects of quality of life that can be bought. (As we all know, there are many aspects of quality of life that are literally without price or purchase.) How absurd then to accept that your money is invested in something that decreases your own quality of life.

Going beyond the aspects of quality of life that are self-centred, one can furthermore include among the interests of owners some of their broadly-held values, such as the belief that poor children should not be forced into slave labour or the belief that companies should really work for environmentally sustainable products and production processes. I do not see that it becomes necessary to include all possible issues under this rubric, because for an investment policy to be socially responsible should not mean that it must pay attention to all public concerns, but it should sensitively and pragmatically reflect those social values that most owners actively care about.

Who is to determine whether the pension fund or insurance company has picked the right values to attend to? Why some issues and not others? The beauty of the market system is that it is very sensitive to feedback from customers. In that sense it is very democratic. Given the chance, customers would decide which pension fund best satisfied their sense of values, and would use this as an element in choosing a provider. The success of the Coop Bank in the UK shows that people actually do take ethics into account in choice of bank when given the option and when the offer is marketed well. In the future, providers could supply various options of SRI, just as they today provide various options of coverage for life or health insurance. Another way of adding quality to the process is to have an advisory board that is able to help the investment manager make informed judgments and design a representative SRI offer. These are some suggestions how the interests of owners can be responded to. And, as explained above, it need not imply any systematic sacrifice of financial performance if it is done right.

A. Reforming Fiduciary Responsibility

This leads us to the matter of fiduciary responsibility. I believe that the concept of fiduciary responsibility needs to be reformed, particularly with a view to update how it is reflected in US and UK investment law, because investment managers tend to believe that their fiduciary responsibility to seek prudent returns is antithetical to attending to social and environmental considerations. In what follows, I argue this is fundamentally wrong. It needs to be made right by expanding fiduciary legislation to include sustainable development criteria within the concept of prudent money management.

Fiduciary responsibility is a concept which covers the duties of care, honesty and professionalism that investment managers should obey. In the US, fiduciary duties are legal duties of investment managers (IM) as agents and owners can seek recourse and compensation when an investment manager fails to perform his fiduciary obligation.¹⁷

IMs thus have a fiduciary duty to their investor, to protect their money from harm, to manage it prudently, and to do so consistent with generally accepted principles that put their investors' monetary interests ahead of their own. In the investment community, the prevailing view is that as long as IMs pursue yield maximization within defined financial risk parameters, and operate within legal and regulatory boundaries, they are discharging their fiduciary responsibilities well (Elton and Gruber, 1991; Copeland, 1994).

This explains why IMs typically make decisions solely on financial criteria, and do not pay attention to environmental risk when evaluating portfolio risk, nor do they usually attend to broader welfare interests of their principals. If we give credence to the larger interests of owners, an expanded interpretation of fiduciary prudence merits consideration. Public policies already incorporate the

¹⁶ Even though I do not believe it is necessary to go so far in practice, this argument could be taken further to say that it is reasonable and prudent to accept some degree of sacrifice in financial performance in exchange for better health and quality of life.

¹⁷ For instance, refer to the prudent-investor rule established in the Harvard College vs. Amory-verdict. For a general discussion of fiduciary prudence, see Kinder, Lydenberg and Domini (1993).

precautionary principle in industrial production (substance and emission controls) and in product and packaging requirements (EU packaging and recycling laws). But environmental precaution is not built into investment management and this is a principal reason why capital flows have not really moved in the direction of sustainable development. While OECD nations have subscribed to the precautionary principle, they have not taken real steps to operationalize it in the functioning of their capital markets.

In the eighties, US. labour unions became aware how their own pension funds were investing in projects that were directly contrary to their own interests. For example, they found themselves financing projects like the non-union construction of the National Right to Work Committee headquarters, a notorious anti-union lobbying organization. Congressional Hearings documented how pension funds were actively investing in firms with poor records in occupational safety and health, or that failed to meet equal employment opportunity guidelines. As a response to this, labour union pension funds began to implement positive screening programs whose purpose was to create portfolios that protect their members' broad welfare interests while also providing a prudent return. Housing loans, health care delivery services, new industries that may create new jobs, and projects that employ union labour are examples of positive screening. However, during the Reagan administration, officials in the Labour Department responsible for ERISA pension plan supervision, discouraged such investments on the grounds that they might compromise their investment performance.

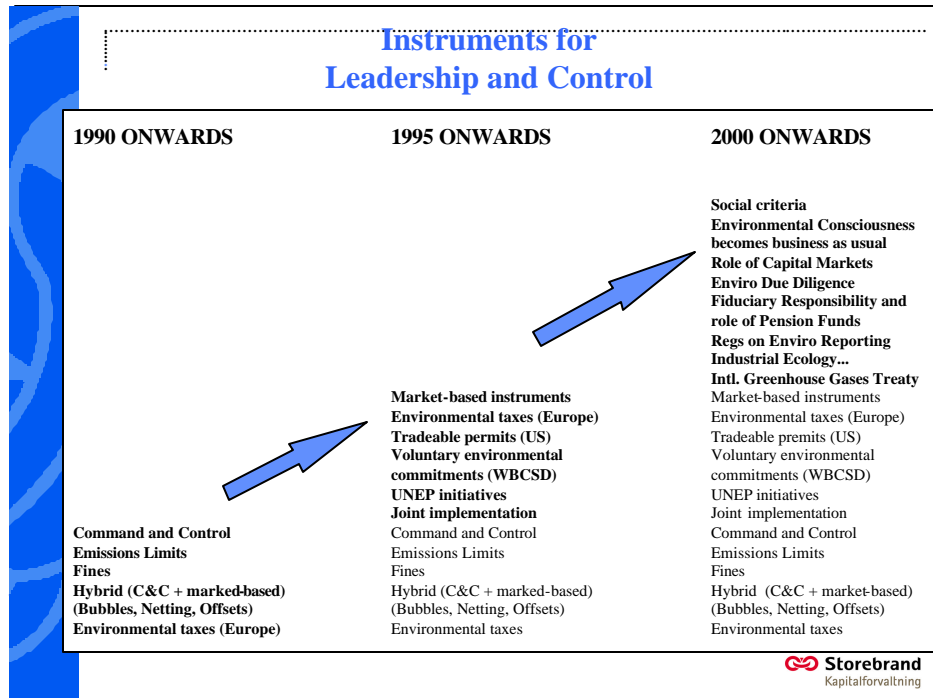
It becomes clear that there is a contradiction between a fiduciary being expected to attend to the best interests of owners but only being able to focus on narrow traditional financial return criteria. Something is amiss. I submit that pension fund laws and fiduciary statutes define the interests of owners too narrowly and thereby create a situation in which the broader quality of life interests of owners are being compromised. These laws were formulated before society understood the urgency of sustainable development, before UNEP was created, before the precautionary principle was introduced into international treaties, and at a time when the prevailing ideology about corporate purpose was Friedman's formulation. Times have changed and it is time for pension fund law and fiduciary law to adjust.

Hence, reforming fiduciary law to also include the non-economic interests of the investor is one way of speeding up the process of moving towards sustainable finance. In addition, the EU ought to enact laws like the UK's, making it compulsory for pension funds to state their policy on SRI, thereby encouraging rather than impeding them from doing so. If this occurred on a pan-European basis, it would have real impact on capital markets. I would also suggest that the European Commission could explore how the broader social interests which are reflected in EU environmental and social legislation can be accommodated in European regulations concerning pension fund investments and the duties of fiduciaries.

Another way forward is for government-controlled funds to be mandated to place a portion of their assets in portfolios that develop SRI investing, as Norway is in the process of doing by creating an Environment Fund portfolio within the Petroleum Fund.

The evolution of society's actions from pollution abatement towards Sustainable Development can be summarized in the following way:

To summarize, we have been describing how public awareness of environmental problems led to environmental laws which created command and control regulations but also liability mechanisms. Liability made risks real for companies, and it also created opportunities. All this made for corporate environmentalism. We are now at the point of making the further business link from corporate environmentalism to sustainable finance. Sustainable finance will mean not only that investors will get rid of some stocks they would otherwise hold but also that they will overweight others which are eco-efficient and gain competitive advantages through good social practices and image. Looking forward, one way to speed up the process is to create demand through SRI reporting legislation, as in the UK, and to apply SRI to government-controlled funds, as in the Norwegian Petroleum Fund.



IV. SUSTAINABLE FINANCE AND THE DEVELOPING WORLD

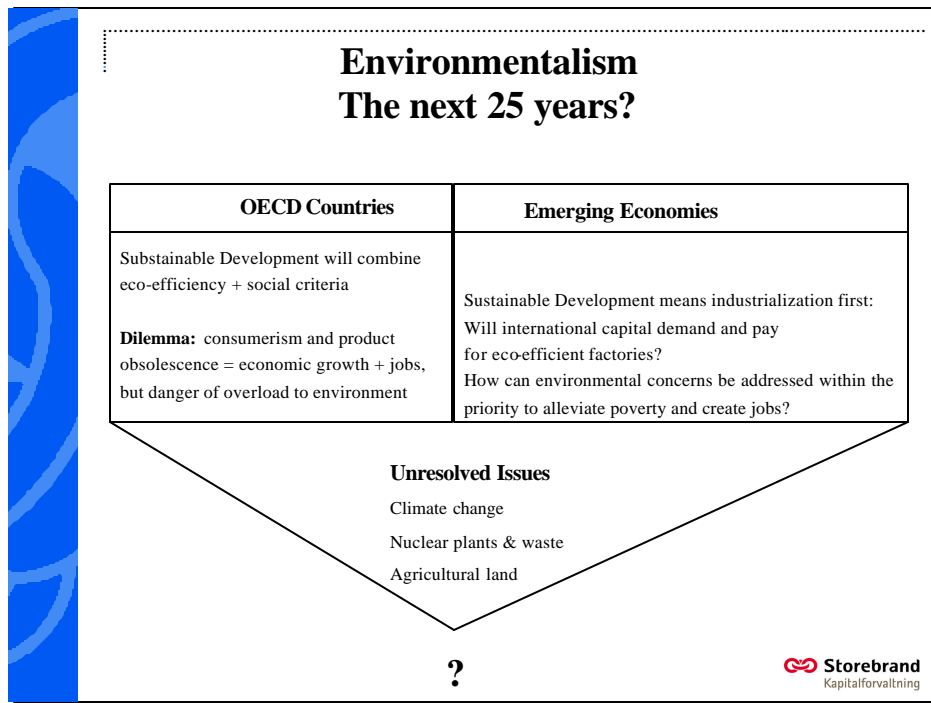
As indicated above, in developed countries we are just beginning to see the outlines of a virtuous circle, connecting public concerns, environmental legislation, corporate environmentalism and financial markets. Also, among the leading companies and in the WBCSD there is a growing recognition that social criteria have to be increasingly taken into account along with eco-efficiency criteria. For instance, the concept of the triple bottom line (profits, environment, social concerns) is frequently invoked in planning documents and speeches by business leaders from Shell, DuPont, British Petroleum.

The question, then, as regards the developing world is: will we evolve from “modernization and development” to sustainable development following the same evolutionary pattern as in developed countries? In the first part of this paper I have described how in developed economies it has taken us thirty years of attitudinal and institutional change to get where we are today, from grass roots public awareness to environmental legislation, environmental liability, and, finally, the beginnings of sustainable investing. Can the world afford another thirty or forty years of the same step-wise evolution and the same pace of change to apply in the developing world? Or is the pace of deforestation, water pollution, urban expansion, air pollution and general resource degradation such that the balance of risks pushes us to accelerate the process and find ways of leapfrogging evolutionary stages?

In the developing world, sustainable development is often understood to mean industrialization first, any kind of industrialization so long as it creates economic growth, alleviates poverty, and creates jobs. Will international capital demand and pay for eco-efficient factories? How can environmental concerns be addressed within the priority alleviating poverty and creating jobs with better wages? The challenge of sustainable finance for the developing world is to develop truly innovative solutions.

Is there any way to make this happen, quickly and radically? If there is a way, it will have to engage mechanisms that incorporate eco-efficiency and social criteria into the flows of private capital from developed into emerging markets. In this part of the paper I will first review some of the problems and barriers particular to sustainable finance in underdeveloped markets and then indicate some ideas of how we might move forward in the area of emerging market portfolio investments by insurance companies, mutual funds, and pension funds from developed countries. The ideas I put forth are admittedly very tentative and sketchy but they may prove to be useful because even though there is an abundance of literature on the general issue of finance, globalisation, environment and developing economies, there is

practically nothing on the specific issue of how all this relates to portfolio investment and environmental screening in developing countries. I believe the solution involves a coordinated policy approach with the public sector as catalyst, working together with the private sector. The public sector would have to come up with incentives and sovereign risk guarantees, along with awareness-building and coordinated action in the developing world, to motivate environmental screening of first world investment portfolios invested in the developing world. The process of globalisation of capital markets must be harnessed to the cause of sustainable development and not just applied to the goal of GNP growth.



In developed countries, private rather than public sector financial institutions have led the way towards sustainable finance. In the developing world the situation is the mirror image: public sector multilateral financial institutions have been the leaders. The World Bank, the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), the Nordic Investment Bank (NIB), and the International Finance Corporation (IFC) have all developed and are implementing environmental criteria in their loans or investment projects. They have also established in-house environmental competence and require expert environmental evaluations when and where environmental risk is considered high. The private sector financial institutions are laggards when it comes to the developing world. The process of awareness, recognition, understanding, and response has not yet reached into Latin America, the Middle East, Asia, or Africa. The stock and bond market's attention to Emerging Markets has been fixated on economic growth but has not been accompanied by concurrent attention to growing environmental problems.

Let me, as a start, note some well-documented and interconnected trends on the present state of finance and emerging markets/developing economies: (1) the globalisation of financial markets and the evolution of market-economies in the developing world (such as in Eastern Europe, China and Latin-America); (2) the steady fall of official development assistance (foreign aid) which makes the issue of private foreign investment acute and the most important focus in regard to third world finance and the environment; (3) the enormous amount of capital needed for developing economies to obtain the growth rates predicted by the World Bank; and (4) the catastrophic consequences were this growth to be conducted in accordance with the unsustainable pattern of industrialization pursued until recently in the West.

The world-wide deregulation of national financial markets plays an important role. According to Schmidheiny and Zorraqu n (1996), 63 developing countries have liberalized their trade policy since the Uruguay Round of GATT began in 1985, more than 30 liberalized their foreign direct investment regimes in 1991 alone and over 50 countries have established capital markets in the 1990s (Schmidheiny and Zorraqu n, 1996, 31). The flow of capital to the developing world has increased sharply over the last years. Whereas the total financial flow to the developing countries in 1990 formed a mere \$83.5 billion, in 1995 it had reached \$251.9 billion (Held and others, 1999, 211). And whereas, initially the private share of this flow was largely made up of foreign direct investment, there has recently been a strong growth in foreign portfolio investment and this seems destined to continue in the nearest future.

By far most of the foreign capital needed for the continued economic expansion of developing economies will have to come from the private sector. Since the 1980s the amount of official development assistance (ODA) has steadily fallen to the present level where it constitutes less than 0.3 per cent of the gross national product of OECD member countries, under half of the global target of 0.7 per cent set by United Nations in 1970, (Kaul, 1995, vii). Although the investments of developmental agencies such as the World Bank and first world governments may prove important for the reason that they may “trade” investments for environmental policy reforms (much as the International Monetary Fund and the World Bank do in regard to financial and political reforms in emerging economies), the share amount of capital needed in Asia, Africa and Latin-America suggests that other mechanisms of “greening” must be considered as well. Again, this suggest the need for considering greening of private investments simply because that is where most of the money will come from. Many scholars have argued this point, that since foreign aid is dropping, ways must be found to make sure that private sector capital is not invested in ways that increase pollution, eradicate biodiversity, destroy irreplaceable resources, or undermine the local ability to produce sustainably (Eatwell, 1996; Pearce and Steele, 1996; United Nations, 1997).

According to McKinsey & Co, the developing economies will need to import over \$2 trillion in the decade from 1995 to 2005 (Schmidheiny and Zorraqu n, 1996, 33). The globalisation of financial markets and the fast integration of emerging markets into this global system makes it possible that this capital can - and will be - raised. The opening up of markets is making it possible and the promises of high profit in the emerging markets makes it attractive to foreign investors. However, it seems imperative that the growth-rates predicted by the World Bank for newly industrialized economies that underpin the promises of high returns, are achieved in a ecologically sustainable manner.

With these trends in mind, it becomes clear that environmentally-screened investment practices have to play an important role in making sure the capital needed in the developing world is employed in eco-efficient ways. It makes little sense from a global point of view to pursue environmental screening in the US and Europe but not in emerging markets. Furthermore, environmental screening of multinationals whose home base and listing is in developed markets will need to focus more and more on how well multinationals apply eco-efficiency criteria in their developing country operations.

The most obvious obstacle to environmental screening in emerging markets is the lack of awareness about the environment as a factor in business and investment decisions. The change in corporations’ approach to the environment, noted by Hoffman and others, has by and large not occurred in developing countries. There is little awareness that eco-efficiency can be good for profits (by cost reduction, anticipatory compliance, green image and better employee relations). For most, the environment is considered to be a financial burden, not a potential opportunity. This is partly a matter of information and education, partly a lack of managerial creativity, but also, at times, the lamentable reality of lack of funds or cost of capital to replace old technology with new. The issue is often thought to be caused by a lack of environmental legislation; but I do not believe this is the crux of the problem because countries like Mexico, Argentina and Brazil have rather stringent legislation. To some extent the cause may be lax enforcement of the existing legislation. I am convinced, however, that the necessary leverage is to be found elsewhere. If owners and managers of emerging market companies were really expected to be able to raise foreign capital more successfully if they were able to show and document more enlightened environmental practices, they would probably put energy into doing so. It would then be worth their while. The argument concerning attracting foreign capital is probably more efficacious than the threat of local environmental fines or other regulatory action.

The reason why attracting capital rather than regulatory punitive action is key to any solution is that even given the right awareness, many emerging market companies lack the capital resources to

exchange their technology for greener production or service technologies, regardless of the pay-off in the mid-term to longer-run. Corporate and political awareness or regulatory punitive action are in themselves not sufficient if the means of acting for the better are not available. Therefore, if our goal is to quicken the process and leapfrog stages, we should attempt to engineer a solution that creates the willingness and the ability at the same time.

Two things have to happen rather simultaneously to make this happen: one, institutional investors (insurance companies, pension funds, mutual funds) from Netherlands, the UK, Germany, France, the US, and Japan have incentives to search for, screen for and invest in environmental leaders in emerging markets. This can be primed through legislation like the UK legislation described in part II above. Two, companies (both listed and unlisted) in emerging markets have to be made to understand that one way of making themselves more attractive to foreign capital will be to put in place environmental reporting and develop an environmental action plan that shows eco-efficiency gains through savings and/or new markets. We need to create an investment appetite and at the same time create investment objects that can satisfy this investment appetite.

How could this be made to work? Let me mention by way of illustration an investment fund that Storebrand is exploring to create in partnership with a leading local Brazilian corporate bank (hereinafter referred to as BB). Storebrand and BB are interested in creating an investment fund to attract foreign capital into Brazil for socially responsible/environmentally responsible investing. The practical difficulties are considerable and deserve to be pointed out, because they indicate why we came up with an approach that is rather different from what we had initially thought about:

- (a) Portfolio investment in Brazil suffers from what Latin Americans call the “golondrina” effect, capital that flies in and out as unpredictably and quickly as a sparrow. What sustainable development needs is patient capital;
- (b) Benchmarking-based stock-picking cannot be done, as the universe of tradable companies is not large enough to allow for “best in class” environmental or SRI comparisons within industries, as, for example, practiced by Storebrand’s Environmental Value Fund;
- (c) Investing in green technology companies (recycling, clean energy, waste-to-energy, etc.) may be a viable investment proposition for some investors, but it is too narrow a niche investment proposition for most cross-border institutional investors, particularly given its history of volatility in Europe and the United States;
- (d) Too few publicly-listed Brazilian companies publish environmental reports and very few care or are able to answer environmental questionnaires from SRI investors.

In addition to these practical difficulties in trying to structure an environmental fund for foreign investors out of publicly-listed Brazilian equities, there is the additional consideration that even though investing in the larger listed companies helps create liquidity in local capital markets, which is positive, it is arguably more important to put capital to work in viable smaller to medium-sized unlisted companies with growth potential and to move these companies in the direction of socially responsible and environmentally sound practices as they grow and expand.

Multilateral development agencies and governments can play an important role on this regard by tying their aid, lending and investment funds to environmental policy or institutional reforms, not only to democratic and financial reforms. Furthermore, they can and ought to contribute by making available or stimulating and paying for the local development of environmental planning, consultancy, accounting and reporting services which would help companies plan for and practice corporate environmentalism and then have it become recognized and rewarded by financial markets. Some emerging market countries have recently made environmental reporting a requirement for Initial Public Offerings (IPOs) and for stock market listing.¹⁸ With further encouragement from multilateral agencies, this phenomenon could be extended to more countries.

¹⁸ Kelly (1999) reports that the UNCTAD/ISAR environmental reporting guidelines: “Thanks to funds from the World Bank and through joining forces with UNEP, and through the Financial Institutions Initiative, the Brazilian National Bank for Economic and Social Development and the Arab Society of Certified Accountants six workshops have so far been held in Thailand, Brazil, and Egypt, Bahrain, Kuala Lumpur and India....In Thailand over 80 high level accounting and financial practitioners attended. The President of the Thai Stock Exchange announced that the

Given these considerations, Storebrand and BB have decided to cooperate to try, on a best efforts basis, to create a \$100 million dollars SRI fund to invest in unlisted private Brazilian companies with annual revenues not exceeding \$250 million in which, acting as a responsible owner, we can cause triple-bottom-line practices to take root. Fifty percent of the investment capital would be from Brazilian pension funds and fifty percent from international institutional investors (e.g. Dutch pension funds, Scandinavian insurance companies, UK pension funds, etc.) who would be acting consciously in line with their SRI policy and their fiduciary responsibility. Storebrand and BB would create a special purpose private equity investment management company in Brazil to select and manage the portfolio of investments. Acting as an active owner, the investment company would ensure that each company invested in would put in place a business-like environmental/SRI action plan as part of its overall business plan. As active owners with board representation and responsibility, the investment company would provide external expertise and SRI talent and give incentive to the management of each company to actively accomplish the stated SRI goals. Since designing and implementing SRI plans for each company invested in would require additional work and costs normally not undertaken by investment companies, Storebrand and BB would seek to obtain grants from development banks for planning, education, facilitation and implementation of the various SRI plans. In addition, Storebrand and BB would make available for coaching sessions, senior executives from their parent companies or from other businesses or organizations with which they have relationships, in order to develop SRI management know-how in Brazil and to publicize the concept. Storebrand would also seek to obtain currency risk guarantees from donor countries for the international institutional investors that would otherwise not be likely to invest without such coverage. In short, this fund will attempt to create a model of responsible ownership, and would seek to engage public sector institutions in support of a private sector model initiative.

This investment fund model would satisfy the need for an SRI investment object for, say, a UK pension fund that needs to practice and show compliance with an SRI policy, and that seeks diversification with low correlation to traditional market indices. Therefore, a new focus of legislators in the EU or the OECD could be to give their institutional investors cause to put SRI/ environmental screening in place for emerging market investments, to provide grants to subsidize the extra costs of doing so, and to provide financial incentives in the form of currency risk coverage (similar to what is available for certain export credits). Correspondingly, a new focus for policymakers and regulators in emerging markets would be to give incentives to local companies to put in place environmental reporting and SR/eco-efficiency action plans. To facilitate the process, the development banks and world development institutions could provide grants or soft loans for consultancy work whose purpose is to help local companies become responsive to what foreign investors look for from an SRI/ES point of view.

Why is this seemingly complicated mechanism needed? In addition to the difficulties enumerated above, in most emerging markets there are few powerful environmental pressure groups and green consumerism is not a driving force. Also, the danger of being exposed in the media as an environmental sinner is less of a threat. This makes it less likely that companies will commit themselves to extra costs to acquire a green image unless they are propelled to do so through the kind of push-pull strategy just outlined. On the pull side, the greening of consumer markets in Germany, Scandinavia, the US, and elsewhere could be tied to the greening of third world companies seeking to gain a growing market share in developed country green consumer markets as a result of their eco-efficiency practices and products—textiles, agriculture products, meat products, components, local energy-efficiency systems, cleaner transportation, energy-efficient cement-making, etc. In an investment world looking for new “investment themes” or “investment stories”, the greening of emerging market companies to meet the needs of first

exchange would initially adopt the guidelines as part of the listing requirements on a voluntary basis...In Brazil our counterpart was the BNDES which gathered together over 120 specialists from industry, accounting firms and environmental groups. As many of you are aware some Latin CEOs and political leaders see development and environment as tradeoffs. What we tried to show them in the workshop was that through better environmental accounting, this need not be the case. This was welcome news to the audience. We intend to continue our work with the financial institutions of Brazil since they seem to be ahead of the profession and the stock exchange in realising the importance of environmental accounting for making their credit decisions... In Kuala Lumpur in July the President of the Stock Exchange undertook to create an environmental reporting award (alongside the corporate financial reporting award) and together with the Institute of Chartered Accountants to introduce the guideline as a listing requirement...In India later that month the Institute of Chartered Accountants of India introduced the guideline as a recommended procedure to their 95,000 members and added it to the curriculum of their 2,355,000 students...In summary the guideline is gaining acceptance; the current European Union discussion paper on environmental accounting follows the same procedure, and this will be issued as a guidance note in the short term.”

world green consumerism could then become an investment theme. (Since themes like The ageing Europe and German Corporate Restructuring are currently in vogue on Wall Street, I can see no reason why The Greening of Emerging Markets could not become a theme within global investing.)

Another angle is that there is considerable public relations benefit to be gained at home by multinationals that not only preach but also seek to practice corporate environmentalism in emerging markets. That public relations benefit can be coupled with the effective investor relations threat of disinvestment by their major pension fund and life insurance shareholders. If firms fail to live up to their global corporate responsibility as global corporations, their shareholders with an SRI policy will need to react. Thus, the well-publicized examples of good or bad by major multinationals operating in emerging markets can serve as a proxy for the lack of local environmentalist pressure groups.

V. CONCLUSIONS AND POLICY OPTIONS

In summary, based on experience with sustainable finance to date in developed markets, the following policy options would seem to hold promise for both developed and emerging markets. The common thread is that public sector actions would serve as a catalyst to unleash and direct private sector commercial initiatives. Once established, these initiatives would become self-regenerating—the market's invisible hand and the government's visible hand working together to:

- (a) Introduce liability legislation in emerging markets similar to legislation in developed markets that makes lenders and investors co-responsible for certain environmental harms.
- (b) Promote environmental and socially responsible screening of the investment portfolios of the insurance companies and pension funds of developed nations. Create demand by requiring public sector pension funds to adopt screening in a step-wise fashion. Create demand by instituting reporting requirements concerning SRI policy and practices by pension funds and insurance companies.
- (c) Reform fiduciary legislation to define sustainable development criteria as compatible with prudent money management.
- (d) Provide incentives for the propagation of SRI funds in emerging markets, by making available grants for SRI consultants, for SRI R&D, for the extra costs of implementing SRI action programs in portfolio investments, and direct regional development banks and multilateral financial institutions to co-sponsor SRI funds with private sector funds managers.

Institutional investors in the EU must become motivated to screen companies or at least to demand information on how the companies they are investing in are doing environmentally, or, they must become motivated to become responsible owners. Whether they become responsible investors as a result of being pressured by their stakeholders or by their governments or by international treaties or by their own conception of corporate citizenship is less important than that they do it.

The complexities and difficulties of achieving global environmental agreements are well documented. But recent progress in Bonn in the process of reaching international agreement on greenhouse gas emissions (particularly after the negotiations in Kyoto and Buenos Aires) seems to show that collective rationality is driving political compromises and winning over the will to maximize self-interested free-riding benefits for individual countries. Perhaps this new political attitude will mark progress on environmental matters in the next millennium. The best practical prescription for policymakers and business may be to act as if it indeed will, and to do one's part to help it happen. If this means leapfrogging the evolution of environmentalism as we know it and appropriating the process of globalisation for environmental and social ends, so much the better.

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