

United States International University
School of Business
San Diego, California

Environmental Finance a New Approach

Research Paper presented by

BLUM J.P. Giorgio
ID# 105 209

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Prof. Burl Howard Ph.D.

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The Current State of the Environment

A trend towards a cleaner and sounder environment has been established over the last 20 years. In 1972, United Nations Organization held the first conference on the human environment in Stockholm (Sweden), establishing guidelines and principles for environmental protection and preservation (United Nations, 1972). Since then other national and international organizations, and individuals have entered the global market, expressing concern about the state of the ecological environment.

Torn between ecological preservation and protection and economic growth and development, the individual is slowly but steadily destroying the living sphere of man (Silver & DeFries, 1990). Silver and DeFries argue that environmental considerations must permeate all decisions, from consumer to national budgets to international agreements (1990, p. 157). We need a global consensus for economic growth in the 1990s (1990:150). A global consensus for economic growth must be consistent with sustainable development. It must take heed of ecological constraints (1990:151-152).

MacNeill, Winsemius, and Yakushiiji (1991:32) report that the primary language of sustainable development is the

integration of the environment and the economy. If economic activity is to result in sustainable development, environment can no longer be regarded as a factor separate from and secondary to economic decision-making; it must be fully integrated into the economic decision-making process in government, industry, and the home.

And Barry Commoner (1974, p. 42) concludes that:

In ecology, as in economics, the law is intended to warn that every gain is won at some cost. Because the global ecosystem is a connected whole, in which nothing can be gained or lost and which is not subject to over-all improvement, anything extracted from it by human efforts must be replaced. Payment of this price cannot be avoided; it can only be delayed. The present environmental crisis is a warning that we have delayed nearly too long.

The Organization of Economic Cooperation and Development (OECD) conducted a study regarding the state of the environment and developed a model for environmental indicators due to increased interest in sustainable development and growing public concern about environmental threats (OECD, 1991), with the full support of the Group of Seven (G-7), who addressed and encouraged the OECD in its efforts, during their economic summit declaration in Houston in July 1990 (OECD, 1991).

Growing Environmental Awareness

Public opinion polls all over the world indicate

increased environmental awareness, as illustrated by the U.S. Gallup poll in 1990, the Japanese public opinion poll on global environment in 1990, and the EC poll, Eurobarometre in 1988 (OECD, 1991), to mention a few.

For years, economic considerations have taken precedence over environmental concerns, thus ensuring growth and profitability for businesses and individuals. Our society has not always been concerned with pollution and ecology. In fact it has only become a major issue in the past three decades (Hay, Gray & Smith, 1989, p. 228). Hay, Gray and Smith (1989, p. 229) also found that most scientists seem to agree that the United States and other industrial nations have polluted the environment to the degree that the quality of life has been impaired. They define pollution as:

Pollution occurs when any biological, chemical, or physical factor is present in the environment for long enough and in enough concentration that it becomes injurious to human life (1989, p.228).

Environmental Legislation

As a consequence, public pressure combined with new scientific findings led to enactments of several environmental laws and regulations. One of the major events

within the United States was the creation of the Environmental Protection Agency (EPA) in 1970 (Clarkson, Miller & Jentz, 1986), followed by gradual and perpetual development of additional environmental regulations. The same phenomena occurred worldwide, where environmental awareness and concern pressured governments into enactments of such laws, despite the growing dissatisfaction of businesses.

However, a legal regulatory framework to protect and preserve the ecological environment is still in its infancy and needs to overcome substantial drawbacks. One of these problems can be illustrated using the classic case of Economic Externality - where all countries overpollute and therefore impose larger than necessary costs on all countries (1991, p.121) - within the European Community.

Devinney and Hightower (1991) argue that the development of a Pan-European Environment Policy is a case of political necessity mixed with fundamental logic. They also conclude that: The problem is furthered since local authorities are responsible for protecting the environment in many of the European countries. moreover, the EC deals with national rather than local governments, which complicates the enactment and implementation of EC policy (1991, p. 121).

A harmonized environmental policy could actually aid in resolving the economic externality problem, and at the same time preserve the competitive posture of businesses, given

the condition of a global harmonized environmental policy. The UN Earth Summit (1992) in Brazil is a "willingness" indicator for present and future cooperation to ultimately create a global environmental policy.

Policies are needed to mobilize and harness the power of market forces for the environment and to make economic and environmental interests compatible and mutually supportive (Stavins & Whitehead, 1992:8).

Conflicting Interests?

However, business is about money, not scoring political points. The implication is that energy costs will rise and companies will be forced to comply with environmental standards or see their costs rise with no benefit in revenues (Charles, 1990). And Vogl (1992) argues that a company's primary responsibility is not to do good, but rather to make profit. Compliance with new regulations is expensive and does directly affect the bottom line: Profit. Additional expenditures to comply with environmental standards can drive businesses into bankruptcy. Funds that are needed to invest in technology development are instead diverted to legal battles over defining acceptable technologies and standards of performance (Stavins & Whitehead, 1992:9).

Another school of thought argues that : Effective

Leadership by the management of corporations is the best way to support and advance the cause of private enterprise. Basic to such leadership is the insight that corporate ethics is a strategic key to survival and profitability in this era of fierce competitiveness in a global economy (The Business Roundtable, 1988:10).

It is implied that every business has a responsibility to the environment, whether they are polluters or non polluters. All businesses are affected by the cost of environmental regulation directly or indirectly as shown by Fazio and Cascio (1971), who report that sectors that do not have to bear a direct cost since they do not pollute, do however, display an increase in costs and prices as a result of the indirect effects.

Whether we are considering a command-control or market-based environmental policy, the results seem to indicate a higher cost to businesses and society at large. However, Stavins and Whitehead (1992) believe that market forces are not only part of the problem but also a potential part of the solution.

Trends for future increases of environmental regulations are established all over the globe (Cairncross, 1990) International Cooperation regarding the issue of Environmental protection and preservation versus Economic growth and development is growing. The market for

environmental products and services is expanding at a fast pace. Environmental awareness of society is heightening. Given all these factors, one understands that businesses need to address the environment in their decision-making process. Costs of products and services will increase, and as a consequence so will their prices.

The development of new products, processes, and services needs to meet both environmental and economic concerns. Financial, human, social, and technological resources need to be made available to meet above mentioned criteria (UN, 1972).

Environmental Finance

The environmental movement has spawned venture capital funds, mutual funds, public financings, new desks at institutional investors, and even a fund sponsored by the Overseas Private Investment Corporation (OPIC), but no major banks that specialize in environmental transactions (Feldman, 1990:68). Feldman further argues that the environmental industry is well established, riskmanagement techniques are available, and analytical expertise is readily accessible to bankers to tap into a growth industry with a rich variety of business opportunities (1992). The production of goods and

services for pollution abatement and environmental protection is a growing industrial sector with markets now estimated at US\$ 200 billion worldwide (OECD,1992:4). The OECD further argues that: Access to financial resources or support for development and demonstration activities is important to the overall competitiveness of environmental products and service suppliers in most countries. (1992, p. 25).

Although there is an enormous amount of literature related to the issue of environmental pollution and protection, actual empirical research about the attitudes and involvement of financial institutions regarding the environmental market has been scarce.

A New Financial Approach

In the world of Finance today are several unexplored fields. One of these fields is the environment. A new term that emerged is called Environmental Finance. The apparent reason for the creation of this new field has been the growing public awareness of the environment.

Conclusions and Recommendation

It is apparent that the environment has suffered during the last decades to a point where mankind cannot any longer ignore the detrimental impacts that a continuous source would certainly cause. Pollution, waste, global warming, depletion of unrenewable energy sources, soil degradation, the dying of rainforests all over the world, and the ignorance of short-term profitability versus long-term environmental planning, have contributed to the current state of the environment.

How can we improve a situation that has escalated so far, and where would we generate these needed sources that would ultimately lead to and support an effective environmental world policy. I do not believe that regulations and laws alone are the answer to the imminent problem. The biggest issue in this society is the problem of maintaining a standard of living and assure a prosperous and profitable future.

Brief Glimpse at a New Model

To effectively support an improved overall standard of living, we need funds that will support both economic and environmental criteria. The closer the Gap between Ecological Preservation and Economic Growth, the higher the quality of the future standard of living.

This report will briefly discuss three ideas that

contribute to above mentioned effect.

1. Reserve Requirements

The Federal reserve lowers the required reserve requirements for banks on loans that go to or toward a portion of (e.g. Environmental Fund Rate = Federal Fund Rate):

- Safety Standards
- Health Requirements
- Additional equipment needed to ensure Safety
- Lower emissions and pollution with increased incentives for improvements beyond the legal requirements.
- Environmental product enhancement.

This will enable banks to lend a portion of needed funds at a lower level than the usual rate, and make up the difference by volume, which would translate into the following economic effects:

- * savings for businesses (Cost of Capital)
- * ensure competitiveness on a global level for businesses, thus maintaining and creating new jobs.
- * increase standard of living, and
- * open up new horizons in investments

Factors that are needed to implement suggested program are:

- Government cooperation and regulatory framework
- Guidelines to assess which part of borrowed funds is allocated towards "environment" purposes.
- Environmental risk analysis
- Credit analysis (e.g. using Environmental Audit)
- New skilled and trained personnel
- etc.

2. Environmental Bond

The government could issue an environmental bond that is somewhere in between the Treasury bond and a triple A bond

offered at the major bond exchanges, with additional incentives such as conservative investment, yields such as Treasury bills, notes, and bonds (Retirees investment preferences). In addition tax incentives could play a major role.

The businesses could profit from such a trend. New jobs, new analysts, new departments, new trading, and new investments would be created. e.g. Corporations could offer a part of their bond offerings as environmental notes to finance a project, say of \$ 10 million, of which \$2 million would go towards environmental compliance (and beyond), social plans, safety, etc.. That portion would pay a little less interest than the regular bonds, however, due to tax incentives for investors on environmental securities issues, the yield would approximately be the same if not higher.

In addition, portions of commissions in underwriting and or selling and buying would go into a special environmental fund that buys and sells environmental issues (Mutual Fund) or be allocated towards the government environmental revenues.

3. Environmental Stock

The stock issued would be proportionate to a firms assets dedicated to environmental purposes, carrying incentives such as tax breaks on dividends, and higher voting counts. The possibilities are endless.

This is just the beginning but at the heart of the model. I will further refine this rough sketch and include it in my dissertation under recommendations for future research and studies to conduct in the field of environmental finance.

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