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## Re-engineering the Planet

### Three Steps to a Sustainable Free Market Economy

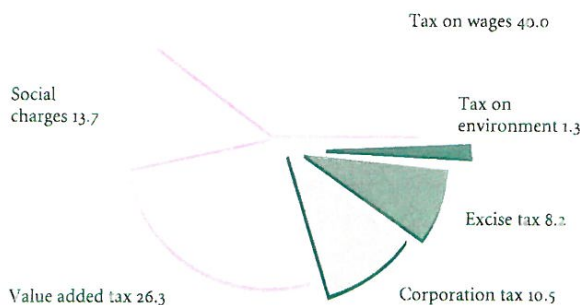
*"A cynic is a man who knows the price of everything and the value of nothing."* Oscar Wilde

Quite simply put, there are currently two pressing problems in the developed and developing worlds: unemployment and the depletion of the planet's natural resources. In my opinion, Western fiscal systems are the fundamental cause of both.

Our culture has devised systems of taxation in which the vast majority of government income from business (80%) is personnel-related, while raw materials are rarely, if at all, taxed.

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Government Income from business (The Netherlands as an example) in %



In other words, the more people you employ, the more tax you pay. Companies therefore have a strong tendency to optimize their operations by reducing personnel to a minimum, even if this means using more energy and raw materials. The reason that our systems have been organized in this way is that, in the past, our rate of consumption has been marginal compared to our stockpile of natural resources. But as our population and technological sophistication have increased, our consumption patterns have sky-rocketed. We're only just now beginning to glimpse the consequences of our profligacy.

Since the fiscal system is the source of these problems, the obvious solution is to change the fiscal system. I therefore propose reversing the current tax structure by levying a tax on raw materials while at the same time reducing labor-related taxes. In other

words, the more raw materials you use, the more tax you pay. Under this system, companies will be encouraged to optimize their operations by manufacturing fewer or more durable products (thereby consuming less raw materials) and enhancing their software and/or service-orientation (thereby requiring more personnel). Increased employment will be a direct side effect of this approach, and a truly service-oriented economy will be created in which businesses distinguish themselves by the degree of net value added to their products or services.

Everything we possess comes from the planet. Unfortunately, in one way or another, everything we possess is also eventually dumped back onto the planet in the form of waste. It may seem like a perfect circle, but it's actually a disastrous downwards spiral since almost all the raw materials used in this cycle are inevitably downgraded. Unless we come to realize the value of a healthy environment to our planet's future prosperity, we shall soon find ourselves in the rather uncomfortable shoes of that proverbial farmer who never truly appreciated the value of water until his well ran dry.

If we imagine the planet's natural resources as our collective inheritance, we should ideally be striving to live from the planet's interest and not to recklessly squander its capital. We must therefore learn to effectively manage the environment just as we would any other business. But just as no business can be successfully run without precise accounting practices, environmental resources cannot be sustained without accurate ecological bookkeeping. If consistently and broadly applied, ecological bookkeeping combined with proper taxation can within a few decades generate the new market mechanisms necessary for sustainable growth, a growth that ensures freedom of entrepreneurship without depleting the planet's resources.

#### *Ecological Bookkeeping*

To effect this change, I propose a three-step plan. The first step is to make ecological bookkeeping mandatory for all companies in the developed world within, say, five years. The proposal of ecological



bookkeeping as used in our account is based on the concept of "extracted value", or the burden a product places on the ecosystem throughout its life-cycle. This burden is expressed in financial terms based on the theoretical costs of either devising a sustainable alternative or reversing the environmental damage caused by a product to a level at which the natural ecosystem is able to eliminate the residual effects.

Though the concept of extracted value is new, I can envision a time not so very far in the future when the extracted value (with and without recycling) of a product (whether it be a can of beans or an automobile) will be listed on the packaging, right next to the number of calories or the miles per gallon. For ecological bookkeeping to be successful, the challenge is to devise such an accounting system that can accurately translate the extracted value of products into cold, hard cash. Such a system of objectively determined extracted values will reveal how we are often robbing Peter to pay Paul as far as our current efforts to solve the environmental crisis are concerned. It will also expose all those who only pay lip service to the objectives of true environmental responsibility.

#### *Extracted Value Tax*

The second step involves the implementation of an extracted value tax of, say, 5% to come into effect concomitant with mandatory ecological bookkeeping. After an initial introductory period, the extracted value tax will be increased by a certain percentage every year until, say, in thirty years time it reaches 100%. This type of full-cost pricing will then include the environmental costs (extracted value) in the total life-cycle of all goods. The gradual introduction of the extracted value tax will give businesses in the various industrial sectors sufficient time to prepare a strategy to meet the changing situation. It will also create a situation in which the economic interests of business coincide with those of the planet. But, most important, it will dramatically change the habits of both business and consumers.

#### *Repairing the Damage*

The third step in this process is the simplest and perhaps also the most important: use a growing part of the revenue generated by the extracted value tax to actually repair the damage done to the environ-

ment. In this way, a fully sustainable economy is a feasible proposition.

#### *The Mother of Invention*

In the scenario I've just described, corporations will be forced to develop new paradigms for doing business and consumers will be forced to develop new patterns of consumption. The ideas I've outlined here will undoubtedly meet with considerable resistance. Some may find such a paradigm shift difficult to imagine. How can our society be expected to undergo such fundamental change? I would just remind them that the changes I'm proposing will be implemented gradually over a period of, say, thirty years. And if we look back at all the technological and lifestyle changes that have taken place over the past thirty years, do these proposals still seem all that drastic?

The fact is that change is inevitable, and the key to business success lies precisely in responding effectively to change. It is therefore only good business sense to anticipate change and let it work in our favor. And the kind of change I'm suggesting is not at all revolutionary; it is managed change and can be relatively painless. Change only really hurts when it is abrupt and unexpected. But because the transition to a fiscal system based on extracted value tax will be announced far in advance, companies will have more than enough time to prepare their response. Change will not be required overnight. But no single country can move to environmental full-cost pricing alone. Globally co-ordinated action is essential.

In the effort to establish concrete extracted values, politicians and policy-makers will be presented with a philosophical "Sophie's Choice": to decide which irreplaceable natural resources are most valuable. What is the extracted value of the white rhinoceros species, for example, when compared to 100,000 barrels of oil? It is therefore imperative that these extracted values be determined on the basis of scientific facts. It is also important to note that the theoretical costs of cleaning up damage or replacing resources can only be based on current scientific and technological capabilities. As these capabilities change, so will the theoretical costs of repair and replacement. And naturally, these costs will also vary significantly between renewable and non-renewable resources.

Ideally, what we really need is some kind of cosmic accountant, an omniscient bookkeeper who was there at the Big Bang and thus present at the moment of the opening balance, someone capable of tallying up our planetary credits and debits. In lieu thereof, however, we'll have to rely on good science and our own sound business judgement.

Sustainable development *is* possible, but only if we begin managing the environment according to sound business principles. The goal of every company is to ensure its continuation and economic growth for the benefit of its employees and its shareholders. Is it not then time for us all, as equal shareholders in Earth Inc., to guarantee the sustainability of our own future prosperity? We must do this neither out of pie-in-the-sky idealism nor vague messianic ambitions, but out of pure economic necessity, a source of inspiration which has been the mother of so much fruitful invention in the past.

We have to face the fact that the only real driving force in the world is business. Simple idealism isn't going to get us anywhere.

Ecological bookkeeping is just a beginning. But as the ancient Chinese Taoist philosopher Lao Tse once wrote: "A thousand-mile journey begins with one step." It only remains for us to take the next step on the road towards sustainable development together.

Eckart Wintzen

For further information on the precise accounting and calculating methods used in the compilation of this Environmental Account, the reader is referred to the Environmental Accounts sections of BSO/Origin's previous Annual Reports (1990 through 1992). Additional information can be obtained via the BSO/Origin offices in Utrecht, The Netherlands.