UNVEILING WEALTH

Unveiling Wealth

On Money, Quality of Life and Sustainability

Edited by

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Foreword

“Prices should tell the ecological truth” is a slogan I introduced in the 1980s in support of the idea of an ecological tax reform. Alas, not much has happened since then. Prices are still misleading us. They ignore the overload of our natural systems by megatons of harmful substances, as well as the depletion of natural resources. As a consequence, conventional indicators undermine economic performance in the long term.

Should we therefore remove the monetary veil, and set out for an alternative compass that will show the way towards genuine wealth? At the Wuppertal Institute, we have already tried to find indicators that speak the ecological truth but which can also be tied to the goal of economic prosperity. Balance sheets of material flows were the result. They point to the need for at least halving the use of materials as well as energy, while doubling wealth at the same time. In other words, we need a Factor 4 improvement in the efficiency of natural resource use.

By now, a number of national and international organisations have incorporated this “Factor 4” concept into their environment and sustainability policies. However, possibly blinded by our success, we have somewhat neglected the international work on the monetary measurement and analysis of sustainable development. We are lucky, therefore, that Peter Bartelmus, one of the leading international experts on the quantitative economic analysis of sustainability, has joined our institute to give us a more complete, ecological *and* economic picture of sustainability.

The main intention of this book is to build a bridge between economists and environmentalists, using operational indicators of sustainability. Peter Bartelmus has asked the pertinent questions:

- What is the significance of prosperity for our quality of life?
- Does the monetary veil, that is, the monetary evaluation of environmental functions, distort the significance of the environment for quality of life?
- Can our standard statistical systems incorporate environmental issues?

This book will of course not provide final answers to these questions. However, the variety of articles, presented here by renowned scholars, experts in the field and decision makers can be expected to overcome a prevailing lethargy — as denounced in the book — in the sustainability discussion.

Robert Repetto gave new impetus to the modification of our most cherished indicators, the national income and product. In this book he shows

furthermore how misleading our typical productivity analyses can be when based on conventional indicators. Other national experts stress the significance of sustainability for long-term policy making, research and environmental management in industry and the energy sector. The diversity of their views and suggestions provides a sound basis for overcoming the polarisation of economic and ecological approaches to the measurement and analysis of sustainability in industrial and post-industrial economies.

There is no way around: we need material “guardrails” for the dematerialisation of our economy, as well as an efficient price system that accounts for the costs of environmental damage.

Ernst Ulrich von Weizsäcker

Member of Parliament, Federal Republic of Germany,
and Founding President of the Wuppertal Institute
for Climate, Environment, Energy

Preface

Unveiling wealth is the translation and expansion of *Wohlstand entschleiern* — a book based on the congress of the same name organised by the Wuppertal Institute for Climate, Environment and Energy (Wuppertal, 10 December 1999). This conference was unique in bringing together representatives of all walks of society: scientists, experts in the field, representatives of industry and civil society, and policy makers. Their common hope was to revive the languishing discussion of sustainable development by filling the concept with operational content. There was agreement that opaque notions like wealth, quality of life and sustainability can only be communicated and implemented if they are measured and monitored by widely agreed and understood indicators. This book includes further contributions by internationally renowned scholars in the fields of material and energy accounting and policy analysis. The purpose is to provide a more comprehensive picture of empirical analyses of sustainability in economic growth and development.

Sustainable development was the leitmotiv of the first Earth Summit in Rio de Janeiro. Many consider this summit a success in raising awareness of the paradigm, but at the same time a failure in supporting adequately its implementation. The United Nations Environment Programme (UNEP), more than any other institution, has attempted to keep environmental concerns on the international agenda. The introductory statement of UNEP's Executive Director sends a clear message: the victory of the market economy will remain victorious only if markets succeed in "internalising" environmental costs.

Part II provides an overview of the use and usefulness of different methodological approaches to the assessment of sustainability. Major challenges lie in overcoming dichotomies in measurement and analysis that include

- economic vs. ecological concepts of sustainability and their monetary/physical counterpart measures,
- development of indicators for vs. compound indices of sustainable development,
- descriptive accounting vs. predictive modelling of trends in sustainable growth and development.

These and other concerns such as the neglect of social and cultural dimensions of sustainability, or the need to complement national by corporate accounting, are taken up by a large variety of studies in part III. Part IV addresses the measurement of the physical basis of sustainability, with a view

to reducing the flow of matter and energy through the economy. Part IV provides thus a counterpoint to, and at the same time the basis for, integrative “green” accounting presented in part II.

Part V takes up the different sustainability notions and indicators and examines how they can be translated into analyses, strategies and policies. With scientific consensus not yet at hand, the “outlook” section calls for politically negotiated partnership among stake- and shareholders of sustainable development. Such social compacts might help to sustain the long-term vision of sustainable development, even in the face of overwhelming security concerns.