

Sustainability as a Global Culture

The Political Economy
of the SDGs
and Mispricing of the Future

Haluk Haksal

Series in Economics



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This book provides a comprehensive perspective on sustainability and environmental economics, making it a valuable resource for both teaching and research.

Professor Sevil Acar
Professor of Economics, Boğaziçi University, Istanbul, Türkiye

This is an intellectually rich book that diagnoses the global pricing system's failure to internalize ecological and social costs, and builds a credible analytical framework for correcting it. Dr. Haksal offers an original analytical architecture that shows what follows when we stop treating sustainability as a trade-off and start treating it as the frame within which economic choices are made. This book is well-suited as a textbook in ecological economics or sustainability.

Professor Murat Tarakci
Professor of Innovation Strategy, IMD Lausanne, Switzerland

Here is a book that treats sustainability from a political economy and finance perspective. It adopts a Green Keynesian approach and gives pricing and investments a key role, and thus provides a fresh perspective on sustainable investments.

Professor Rick van der Ploeg
Director of Research, Professor of Economics, University of Oxford, UK

Sustainable finance has travelled a long way, but genuine sustainability is nowhere close. With this book, Dr. Haluk Haksal provides a comprehensive overview to readers interested in the history and future of sustainable finance. You will find yourself immersed between analytical detail and appeal to sustainability as a precondition for human freedom and dignity.

Philipp Censkowsky
Faculty of Business and Economics (HEC Lausanne),
University of Lausanne, Switzerland

This book offers a compelling reframing of sustainability. Rather than treating it as a trade-off among competing objectives, Haluk Haksal presents it as a global culture that shapes how we invest, govern, and live. By tracing the path from mispriced markets through sustainable investment to macroeconomic policy, he provides both a sharp diagnosis of why current systems fall short and a coherent framework for aligning them with ecological limits and long-term human well-being. The clarity and structure of the analysis make this book particularly valuable for teaching in sustainability and environmental economics, as well as ecological economics.

Professor Karl Schmedders
Professor of Finance, IMD Lausanne, Switzerland

What distinguishes this book is its clarity on what actually changes behavior: culture, not compliance. By treating the SDGs as shared ethical coordinates rather than bureaucratic milestones, Haksal delivers an educational foundation we urgently need. The critique of GDP orthodoxy and the case for post-GDP economics are not tangential; they are overdue. Pluridisciplinary thinking has become the baseline.

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List of Abbreviations

AI	Artificial Intelligence
ANN	Artificial Neural Networks
APEC	Asia-Pacific Economic Cooperation
ASCM	Agreement on Subsidies and Countervailing Measures
C	Consumption
CBAM	Carbon Border Adjustment Mechanism
CBDR	Common but Differentiated Responsibilities
CBOE VIX	Chicago Board Options Exchange Volatility Index
CC BY-NC	Creative Commons Attribution–Non Commercial License
CDM	Clean Development Mechanism
Carbon VIX	Carbon Volatility Index
COP	Conference of the Parties
Copernicus	Copernicus Climate Change Service
CSRD	Corporate Sustainability Reporting Directive
CTE	Committee on Trade and Environment
DICE	Dynamic Integrated Climate Economy
ECMWF	European Centre for Medium-Range Weather Forecasts
EHB	European Hydrogen Bank
ESG	Environmental, Social, and Governance
ETS	Emissions Trading System
EU	European Union
EUAs	European Union Allowances
EU ETS	European Union Emissions Trading System
EV	Electric Vehicle
FED	Federal Reserve System
G	Government Expenditure
GBM	Geometric Brownian Motion
GDI	Gender Development Index
GEI	Gender Equality Index
GII	Gender Inequality Index
GDP	Gross Domestic Product

GHG	Greenhouse Gases
GISD	Global Investors for Sustainable Development
GISTEMP	Goddard Institute for Space Studies Surface Temperature Analysis
GNI	Gross National Income
GNP	Gross National Product
GPI	Genuine Progress Indicator
HDI	Human Development Index
HPI	Happy Planet Index
I	Investment
IAMs	Integrated Assessment Models
IHDI	Inequality-Adjusted Human Development Index
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
ISEW	Index of Sustainable Economic Welfare
IWI	Inclusive Wealth Index
IWR	Inclusive Wealth Report
LCA	Life Cycle Assessment or Analysis
LCC	Life Cycle Costing
LCI	Life Cycle Inventory
LCIA	Life Cycle Impact Assessment
LCSA	Life Cycle Sustainability Assessment
LCT	Life Cycle Thinking
LSTM	Long Short-Term Memory
M	Import
MC	Ministerial Conference
MFA	Material Flow Analysis
MPI	Multidimensional Poverty Index
NASA	National Aeronautics and Space Administration
NBER	National Bureau of Economic Research
NDCs	Nationally Determined Contributions
NGOs	Non-Governmental Organizations
NOAA	National Oceanic and Atmospheric Administration
NPV	Net Present Value
ODA	Official Development Assistance

OECD	Organization for Economic Cooperation and Development
PCAF	Partnership for Carbon Accounting Financials
PPP	Purchasing Power Parity
R&D	Research and Development
RICE	Regional Integrated Climate Economy
RNN	Recurrent Neural Networks
ROA	Real Options Approach
SCC	Social Cost of Carbon
SDGs	Sustainable Development Goals
SEI	Stockholm Environment Institute
SFDR	Sustainable Finance Disclosure Regulation
SFSC	Short Food Supply Chain
SNN	System of National Accounts
SSF Report	Stiglitz-Sen Fitoussi Report
S-LCA	Social Life Cycle Assessment
TESSD	Trade and Environmental Sustainability Structured Discussions
TFP	Total Factor Productivity
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNPRI	United Nations Principles for Responsible Investment
UNU	United Nations University
X	Export
WACI	Weighted Average Carbon Intensity
WMO	World Meteorological Organization
WTO	World Trade Organization

Preface

This book explores development from a political-economic perspective. Nevertheless, I wish to make the following distinction from the outset: development is often immediately associated with economics—understandably so, as economics provides powerful tools, methods, and theories for analyzing growth, investment, and efficiency. However, development is first and foremost a matter of human rights.

The very first article of the Universal Declaration of Human Rights (UDHR) affirms:

All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

This statement reflects a global consensus: every human being, regardless of place of birth, is entitled to the same fundamental rights and dignity. Yet, for a large share of the world's population, these rights remain out of reach.

While these rights are universal in principle, they are far from being universally enjoyed. For more than half of the world's population—those living in countries that have not achieved a minimum threshold of development—basic rights such as food, clean water, education, and healthcare remain inaccessible. It is in this context that the Sustainable Development Goals (SDGs) emerge as a global blueprint for turning these rights from aspirations into realities.

This book arises from an urgent concern: that our economic and financial systems, though vast in scale and influence, often fall short of enhancing what truly matters—the freedom and capability of people to live lives they have reason to value.

Human rights may be legally recognised, yet not effectively enjoyed by populations that fall below a certain development threshold. It is like being in an invisible prison—one where the walls are not physical, but structural and economic. In such a condition, people may be theoretically free, yet unable to satisfy even their most basic needs.

In this context, I recall the 2005 report by former UN Secretary-General Kofi Annan, titled *In Larger Freedom: Towards Development, Security and Human Rights for All*. Deeply influenced by Amartya Sen's capabilities approach, Annan argued that development must be understood not as the accumulation of wealth, but as the expansion of substantive freedoms. He stated that development cannot be achieved without security, nor security without development, and

that neither can be sustained without respect for human rights. This vision underscores a simple but fundamental truth: development, security, and human rights are deeply interconnected and mutually reinforcing.

Two decades later, these insights remain at the core of today's global challenges.

The question, therefore, is: if sustainable development has become a global aspiration, why do our economic and financial systems continue to produce unsustainable outcomes?

The book's central diagnosis is that the global pricing system is structurally misaligned with sustainability imperatives. More precisely, prices fail to convey meaningful information about long-term welfare because ecosystems are treated as costless, social dimensions are marginalised, and the interests of future generations are systematically excluded. The path to addressing this misalignment lies in sustainable investment, examined across both microeconomic and macroeconomic perspectives. The study explores how sustainability transforms firms' cost structures and challenges macroeconomic assumptions about growth and welfare.

The analysis develops across several key themes:

- The implications of SDG-aligned finance;
- The valuation of externalities and carbon pricing;
- The role of Keynesian uncertainty in evaluating sustainable investments;
- The use of behavioural economics in promoting sustainable consumption;
- And the need for alternatives to GDP in assessing human and ecological well-being.

This book addresses researchers, graduate and undergraduate students, policymakers, and politicians—those who not only study but also influence economic, social, and environmental futures. While grounded in academic research and directed towards students and scholars, it is also written with a broader non-expert audience in mind. To this end, every chapter concludes with two complementary summaries:

- **Key Insights:** A concise, analytical synthesis intended for expert readers and academics;
- **In Simple Words:** A more globally accessible, narrative-style summary written for non-experts in the field and the general public, meant to translate complex ideas into a more relatable and intuitive form.

These sections aim to expand the book's reach and foster a broader understanding of how sustainability intersects with political economy.

The structure of the book follows a deliberate asymmetry:

Chapter 1 begins with values—introducing sustainability as a global culture grounded in human rights. It sets the conceptual foundation for the economic analysis that follows.

Chapter 6 opens with the book's central diagnosis of a misaligned global pricing system and brings together the analytical framework developed throughout the study. It then reconnects this economic analysis with a human rights perspective and a global culture of sustainability. The result is a narrative that begins with *why this matters*, develops by explaining *how the system operates*, and concludes by showing *how it can be transformed*—before returning to what ultimately defines its purpose.

While not exhaustive, I hope this book provides a coherent conceptual framework and an ethical compass for navigating the complexities of sustainable development.

Haluk Haksal
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His research focuses on green macroeconomics, particularly on the political economy of sustainable investment and on operationalising the Sustainable Development Goals (SDGs). He has a particular interest in the role of sustainable investment in aligning economic systems, financial markets, and public policy within ecological limits.

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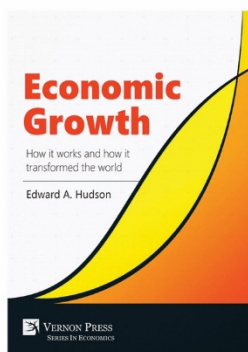
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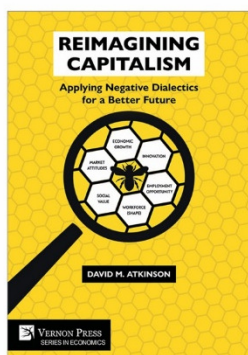
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