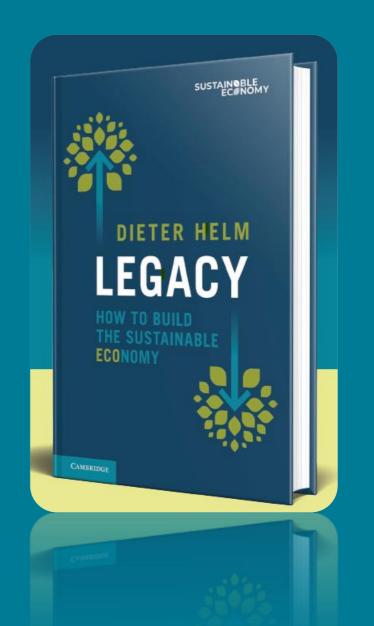


Climate change, biodiversity loss and the macroeconomy of the sustainable economy

Society for Professional Economists

17th November 2023

Dieter Helm Professor of Economic Policy University of Oxford

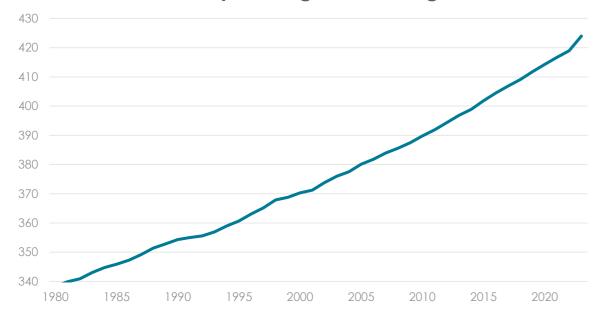






Just to remind you how unsustainable the economy is – climate change

CO2 monthly average, 1980-August 2023



Source: https://gml.noaa.gov/webdata/ccgg/trends/co2.

Oil demand (mbd), 1965–2024 (est.)



1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020

Source: "Energy Institute Statistical Review of World Energy", 2023; * Estimates for 2023 and 2024 taken from IEA (2023), "Oil Market Report - August 2023".



And then there are the declines in biodiversity





EMISSIONS

SEQUESTRATION

- trees
- grass and plants
- marshes and wetlands
- oceans
- soils

- oil
- gas
- coal
- soils
- peat

Amazon rainforest



Nickel-mining in Indonesia







The question is...



The three core foundations

- citizens not consumers
- > uncertainty and resilience not expected utility
- assets not flows





The objective

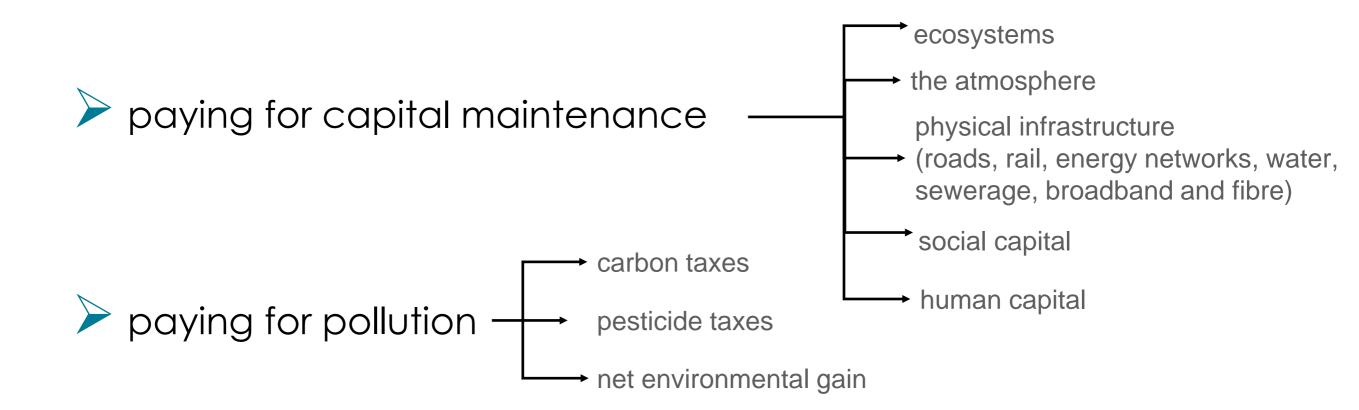


- core assets in perpetuity and balance sheets
- > capital maintenance as a current cost
- resilience





Living within our sustainable means



savings for investments — government — industry and retained earnings — individuals





The macroeconomic consequences of the balance sheet



CURRENT ACCOUNT

Current spending

Capital maintenance

Tax and other revenue

CAPITAL ACCOUNT

Assets

Liabilities

New enhancements

New debt/ borrowing





Sustainable consumption + growth

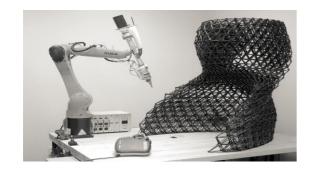


sustainable consumption net of capital maintenance

→ no depreciation of core assets
 → no net capital consumption

> economic growth from ideas and new tech

genetics, digitalisation and AI, quantum computing, fibre, etc, etc, etc...







After climate costs

After natural capital protection







How it ends

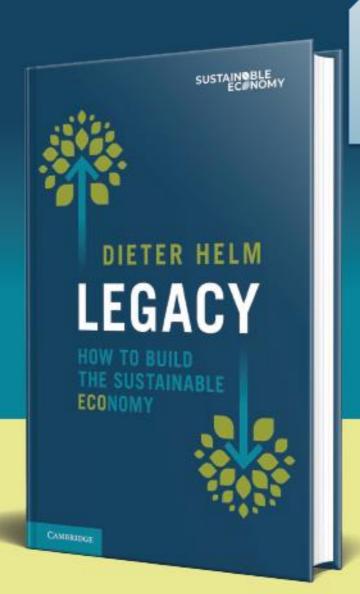


- > not doing enough capital maintenance
- borrowing for capital maintenance
- not paying for pollution

WHAT IS UNSUSTAINABLE WILL NOT BE SUSTAINED

The question is not whether we become sustainable, but whether it is ex ante or ex post





"Dieter Helm does not pull his punches in this forthright and powerful book. What is unsustainable can, he insists, not be sustained. To avoid disaster, we must transform how we live. Above all, we must all pay for the maintenance of core natural assets, instead of living well off their destruction. This will demand radical changes in how we live our lives, individually and collectively. Some will assert that the revolution he seeks is impossible. Helm counters that it is inescapable."

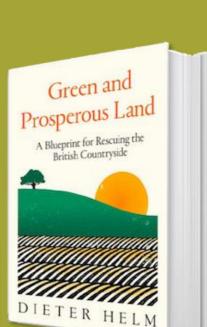
Martin Wolf, Chief Economics Commentator, Financial Times

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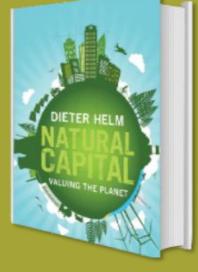
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