

Distribution, Growth, Ecology –
Squaring the Cycle?
Ideas for Reconciling Post-Keynesian and
Ecological Economics

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"Storyline"

- Problem: Triple challenge
 - Required speed of transition
 - Growth imperative
 - Inequality
- How (not) to think about it?
 - Neoclassical economics
 - Combining Post Keynesian theory and Ecological Economics
- What to do? Aspects of achieving transition
 - Politics of power
 - Post Keynesian policy proposals

Multiple Crises

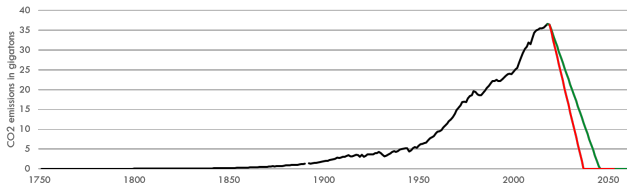
- Ecological*
- Social
- Health
- Economic?

⇒ Address simultaneously

* Presumed here:

- Global warming is human-made
- Risks are high at 1.5°, escalate beyond
- Earth is largely uninhabitable at 6°

CO₂ Reduction Path for 1.5 Degrees



— 1,5° goal, reached at 50% probability — 1,5° incl. historical CO₂ emissions for high-income countries

Data: OWID 2021, IPCC 2021, own calculations

- Yearly CO₂ reduction of 10-12%
- Taking their historical share into account, high-income countries need to reach net zero emissions of CO₂ by 2037 (Anderson ea. 2020)

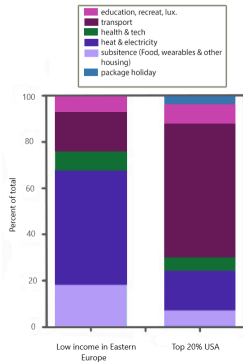
Growth Imperative?

- Investment/accumulation is one of the key features of capitalism:
 - Profit expectations \Rightarrow investment
 - Competition forces companies to invest, or else perish
 - (But no monetary growth imperative, Fontana/Sawyer 2016) \Rightarrow Growth of the capital stock
- Historically, there is a near linear 1:1 relationship of income and energy use (Semieniuk 2018)
- Two possible strategies for severing the positive feedback effect: Decoupling and mitigation (carbon capture & storage)

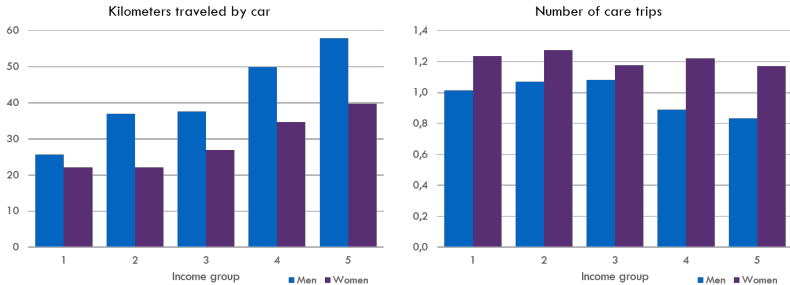
Distribution

- Differential rates of emission: lower income → higher relative CO₂ intensity of consumption
 - Higher income → higher absolute energy use (Wiedmann et al., 2020; Oswald et al., 2020)
 - Dynamics due to composition: Transport more difficult, heating and electricity easier to abate
- ⇒ lower inequality makes it easier to decarbonize (Oswald ea. 2021)

Source: Oswald ea. 2021



Distribution by Gender in Transportation



Source: Huwe (2021)

- Men travel more kms by car \Rightarrow emit more CO₂
- Women make more care trips (using any mode of transport)

How NOT to think about it? Neoclassical edition

- Nordhaus (2018 AEJ:EP): 6° warming \Rightarrow 8.5% income loss
 - Dietz/Rising/Stoerk/Wagner (2021 PNAS) meta analysis of tipping points: 6° \Rightarrow 1.4% consumption loss
 - Partly due to the framework (externality) & methods: perfect factor substitution, no demand effects, self-stabilizing models, mis-specified damage functions + high discount rates
 - But also confidence in capitalism
- \Rightarrow Policy recommendation: market for carbon prices

How to think about it? Post Keynesian and structuralist

- Mitigation by spending 3% of global output per year (initial „big push“ of 6%, Semieniuk/Taylor/Foley/Rezai 2021)
 - Takes demand effects of transition into account (PK IAMs)
 - Critical of degrowth, but modelling possible (Hein 2021)
 - Decoupling through a technological revolution (new Kondratief cycle, Priewe 2021)
 - Confidence in governments' ability to stabilize capitalism
- ⇒ Policy recommendations: carbon price (tax incl. border tax), government investment (Onaran et al. 2020), green finance (Dafermos/Nikolaidi/Galanis 2018), work time reduction (Mechler/Rezai/Taylor 2013), redistribution

Criticism by Ecological Economics: Technological Solutions Necessary, but not Sufficient

- Carbon Prices
 - ECTS failed: No understanding that markets are political
 - Prices (both market + tax) too low for technological change
- Decoupling
 - Higher GDP growth \Rightarrow higher required decoupling (CO₂, Haberl ea. 2020)
 - No decoupling in resource use (Hickel/Kallis 2019)
 - Massive technological leaps required for aviation, shipping, steel & concrete (Davis ea. 2018)
- Mitigation (carbon capture & storage)
 - Net negative emissions in IPCC scenarios
 - So far not viable (technologically/economically, Minx ea. 2018)
 - Planting & Burning biomass: Risks for biodiversity, inequality of land use and food security (Creutzig ea. 2021)

Post-Keynesianism und Ecological Economics I: Growth Models

- Leontief production function (constant marginal cost), mark up over cost, focus on the short run
 - ✓ No contradiction: Realistic view of technological change: retro fitting, net investment
- Classes as social actors
 - ✓ No contradiction
- Steady state models
 - ✓ No contradiction: Growth is not baked into models, adequate parameters yield CO₂-neutral steady state (Hein 2021)
- Wage-/profit-led debate
 - ✓ No contradiction: Small absolute effects, main point: there is no trade off between equity and efficiency

Post-Keynesianism und Ecological Economics II: Economic policy

- Fiscal policy for stabilization
 - ✓ No contradiction: Generating growth is not a goal
- Endogenous monetary policy (money creation)
 - ✓ No contradiction: Horizontalist view (Cahen-Fourot/Lavoie 2016), monetary policy is accommodating
- Strong state
 - ✓ No contradiction: Active welfare state (investments in socio-ecological transformation), debt thus sustainable

Post-Keynesianism und Ecological Economics III: Contradictions

- Focus on distribution: differential saving rates, demand-driven growth
 - ✗ Contradiction: Redistribution to the bottom leads to higher growth, low-income groups have higher relative CO2 emissions
- Growth imperative (net investment/accumulation)
 - ✗ Contradiction: Forced accumulation of capital (cut-throat competition)

Post-Keynesianism und Ecological Economics III: Contradictions

- Focus on distribution: differential saving rates, demand-driven growth
 - But: absolute CO2 level relevant for global warming
 - Sustainable consumption paths (Fuchs et al. 2016, Gough 2020)
 - ⇒ Public investments (insulation, public transport)
- Growth imperative (net investment/accumulation)
 - Fundamental socio-ecological transformation / focus on human needs?
 - Mixed economy?: remove economic domains from the profit/accumulation logic
 - Not necessarily central government, can be under the auspices of cooperatives, NGOs, different levels of government etc.

Political Economy of a Post-Keynesian - Ecological Economics Synthesis

- Major obstacle of political feasibility: power
- Pressure from below (activists)
- Pressure *ex cathedra*
- Strategic coalitions (faction of capital: e.g. renewables)

Conclusions

- 3 schools of thought on ecological issues:
 - Neoclassical: this is fine
 - Post Keynesian: mitigate + redistribute
 - Ecological economics: socio-ecological transition
- Post-Keynesianism and Ecological Economics can be (and in many cases, have been) reconciled: both are necessary

Thank You for Your Attention