



Bachelor Thesis

Imagining Consumption-Based Emissions in a World where Efficiency Gains have mostly Plateaued

Consumption-based emissions for high-income countries are currently projected to have a downward trajectory. This anticipated decline is largely anchored to the utilisation of "business as usual" pathways in emission projection (Vogel, Hickel, 2023).

Consumption-based emissions encompass not only the greenhouse gases emitted from activities within a country's borders but also those attributable to the production processes of imported goods and services. A pivotal determinant of these "imported emissions" is the emission intensity from exporting nations. Over recent decades, many of these exporting countries have achieved efficiency gains through technological and process adjustments, resulting in emission reductions. Yet, the sustainability of these advancements into the indefinite future remains a point of contention. It may be unrealistic to expect these efficiency gains to maintain their current pace.

Given this context, the aim of this thesis is to analyse the reasons for the decline in consumption-based emissions and derive implications for assumptions about potential future pathways.

Key tasks and objectives of the thesis

- Familiarisation with consumption-based emissions accounting,
- Gathering of necessary data,
- Projection of consumption-based emissions,
- Discussion of results.

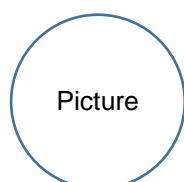
Your profile

- Student of economics with a focus on energy and/or environmental economics.

Literature

- Vogel, J. and J. Hickel (2023): Is green growth happening? An empirical analysis of achieved versus Paris-compliant CO₂-GDP decoupling in high-income countries. In: The Lancet Planetary Health, 7(9), p. 759-769.
- Jiborn, M, A. Kander, V. Kulionis, H. Nielsen, D. Moran (2018): Decoupling or delusion? Measuring emissions displacement in foreign trade. Global Environmental Change-human and Policy Dimensions, 49, p.27-34.

Contact



Picture

Frederike Fitza

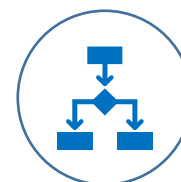
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Topics



- Decarbonisation
- Technical efficiency

Methods



- IO Analysis
 - Projections
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