



¹ NABU

Charitéstraße 3

10117 Berlin, Germany

Benjamin.Bongardt@NABU.de

² Oeko-Institut

Merzhäuser Str. 173

79100 Freiburg, Germany

a.hermann@oeko.de

n.kampffmeyer@oeko.de



Material input taxation – the forgotten tool in policy-mixes for resource protection

Benjamin Bongardt¹, Nele Kampffmeyer², Andreas Hermann², Ida Wesphal²

Motivation

- Will to protect the natural resources with a functioning policy-mix
- Taxation of wages instead of natural resources
- OECD (2010) and others recommend a revenue-neutral taxation-shift towards consumption over the medium term
- “Plastics problem” - impact (on sources and sinks) of light industries is underestimated in resource policy



David Cayless/Marine
Photobank



<http://savingsfunda.blogspot.de>



Bundesregierung/
Tybussek

Economic instruments

- Minimizing subsidies (esp. environmentally harmful)
- Extended producer responsibility (EPR) schemes (with ecological steering effect)
- Differentiation of VAT (dependent on the resource efficiency of goods and services)
- Taxation of a product group (e.g. beverage containers, single-use carrier bags)
- Taxation of raw material treatments (e.g. plastic-waste incineration)
- Material input tax
- e.g. Taxation of (primary) construction material extraction



wikipedia.de / linguisticDemographer



Von Witold Grzesiek, Commons:Wikipedia.org
<https://commons.wikimedia.org>

Material input tax (theory)

- Fiscal psychology (a sound communication of policy package is indispensable)
- Excise duty (vs. transaction tax and fees)
- Quantity tax (vs. ad valorem tax)
- Indexing to avoid tax loss (through inflation)
- Feasibility (jurisdiction, political willingness, administration costs, etc.)
- Taxable base (differentiation increases complexity)
- Avoid substitution (other materials) effects
- Border adjustment necessary
- Steering effect (tax-rate not too high/low)
- Carrier of the tax burden



Material input tax (on plastics)

- **Policy-mix on plastics necessary** (waste, hazards, feedstock, efficiency...)
- **carriers of tax burden**: producers & importers (probably passing on)
→ efficiency rises, rebound effects decrease, product life-span rises
- **Differentiation of tax-rates** by a) plastic type, b) content/harmfulness of additives, c) recycability, d) recycled content [→ combinations possible]
- **Intendet effects** of tax rate and tax base: a) internalization of external costs (e.g. GHG-emission during production, toxicity, littering rate), b) steering effect “less usage of plastics”, c) attention on possible strangulation effect for businesses
- Decide if taxation is implemented on **international** (e.g. OECD, EU) or **national level** (incl. boarder adjustments)

Conclusions & recommendations

EU-wide taxation easier than national implementation (boarder adjustments)

MIT are an underestimated and necessary part of a policy-mix for resource-protection

MIT are in line with SDGs (esp. No. 12)

MIT can help reduce tax burden on wages

MIT for every raw material is very complex

MIT for specific raw materials in combination with taxation for special products is probably most successful

MIT on plastics fits well into EU plastics strategy

MIT on plastics is possible but specific implementation needs further in-depth analysis

More effort on MIT-concepts is overdue