The use of revenue from green fiscal reform

Eike Meyer | Reunión de expertos “Instrumentos económicos para la internalización de costos ambientales” | Santiago de Chile | 27 March 2019
Presentation outline

1. Introduction
2. Revenue potential of green fiscal reform
3. Options for using revenue
4. Considerations on how to use revenue
5. How is revenue used today?
Introduction: environmental taxes and their revenue

Environmental taxes...

... the only environmental policy instruments, that do not cost money but create revenue.

... usually unpopular.

... their revenue creates desires all around:

- „It´s a tax, the revenue must not be earmarked."
- „It´s an environmental tax, of course the revenue must finance environmental goals“
- „It hurts the poor/companies, of course the revenue must be used to compensate them."
Current revenue and revenue potential of green fiscal reform
Revenue from environmentally related taxes in OECD countries (2014)

Average revenue potential of socially optimal energy taxation in countries in different income groups

- Revenue potential from fully internalising pollution costs
- Potential savings from ending energy subsidies
- Potential revenue from CO2-tax (30 USD/t)
- Current Tax-to-GDP ratio

Options for using revenue from green fiscal reform
Options for using environmentally related tax revenue

- Fiscal consolidation
- Increased spending
- Green spending
- Reducing labor taxes
- Reducing capital or corporate taxes
- Directed social transfers
- Uniform transfers
Legal aspects of using environmental tax revenue

- In many countries earmarking of tax revenue is not possible or limited (total coverage principle)
- In certain circumstances, tax-financed special assets can be created
- Even without earmarking, tax revenues can be attributed to a purpose by political declaration („soft earmarking“)
- Non-tax revenue can always be earmarked.
Considerations on how to use revenue from green fiscal reform
General wisdom of public economics on using revenue from environmental taxes

- Focused on efficiency and equity

- If the initial tax system is suboptimal, using revenues to correct distortive labor taxes perform well both for equity and efficiency.

- Trade-off: Corporate/capital tax reductions are most efficient but least equitable.

- If the tax-system is (close to) optimal, lump-sum payments perform best in terms of equity and efficiency.
And yet...
Additional considerations on acceptability of revenue use

- Political trust
- Support for climate policy
- Is Pigouvian taxation understood?
- Distribution of costs and benefits
Recycling mechanisms ranked for efficiency, equity and acceptability (Klenert et al. 2018)

<table>
<thead>
<tr>
<th>Recycling mechanism</th>
<th>Efficiency</th>
<th>Equity</th>
<th>Acceptability</th>
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<tbody>
<tr>
<td>Labour tax (initial system non-optimal)</td>
<td>+</td>
<td>+</td>
<td>0</td>
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<tr>
<td>Labour tax (initial system optimal)</td>
<td>0</td>
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<tr>
<td>Capital/corporate tax (initial system non-optimal)</td>
<td>+</td>
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<td>Capital/corporate tax (initial system optimal)</td>
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<td>Directed transfers</td>
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<td>+</td>
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<td>Uniform transfers (initial system non-optimal)</td>
<td>0</td>
<td>+</td>
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<tr>
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<td>+</td>
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</tbody>
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Decision-tree for carbon pricing revenue recycling (Klenert et al. 2018)

Is carbon price acceptability low, due to political distrust or fundamental preferences over climate policies?\(^a\)

Are there concentrated costs and diffuse benefits? (for example, a domestic fossil fuel industry)?\(^b\)

Is efficiency a greater concern than equity?\(^c\)

Does ignorance of Pigouvian taxation matter?\(^d\)

Is the initial tax system optimal?

Green spending plus compensation of concentrated losses

Uniform transfers plus compensation of concentrated losses

Green spending

Uniform transfers

Corporate or other tax cut

Uniform or directed transfers

Labour (or other) tax cut

Source: Klenert et al. 2018 (https://www.nature.com/articles/s41558-018-0201-2)
How is revenue from carbon pricing used today
Real-world revenue recycling (2013)

Source: Klenert et al. 2018 (https://www.nature.com/articles/s41558-018-0201-2)
Thank you!

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