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Redirecting markets towards sustainability Germany's rocky path to an Ecological Tax Reform

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Agenda

2. Stylized views of the tax system
3. The concept of an environmental tax reform
4. The Ecological Tax Reform in Germany
5. Political debate in Germany
6. The need for market-based environmental policies

Stylized views of the tax system (1)

Taxes are primarily an instrument for raising revenue

- Main concerns
 - Stability and predictability of revenue
 - Administrative costs
 - Distributive effects

Stylized views of the tax system (2)

Optimal taxation

➤ Main concerns

- Efficiency, excess burden and welfare losses
- Globalization, competitiveness and international capital flows
- Work incentives and unemployment

Stylized views of the tax system (3)

Taxes and the environment

➤ Main concerns

- External effects cause market failure
- Pigou (1920): welfare gains through taxes
- Optimal tax base and tax rate
- 'problem': tax revenue

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The Concept of an Environmental Tax Reform

- Reorienting of the tax system so that it focuses more on “bads” like pollution and less on “goods” like labour effort or capital formation
- Introducing an environmentally oriented tax (e.g., a tax on CO2 emissions or gasoline) and using the revenues from this tax to finance reductions in the rates of pre-existing distortionary taxes like income or sales taxes

Goulder, Parry (2000)

Double dividend hypothesis

- Price distortions impair efficiency of market allocation
 - External costs: costs which are not reflected in prices
 - Revenue-raising distorts prices and reduces incentive for investment and work
- **Hypothesis:** tax shift from traditional taxes to environmental taxes may create “double dividend”
 - Minimize welfare losses
 - Incentive for employment

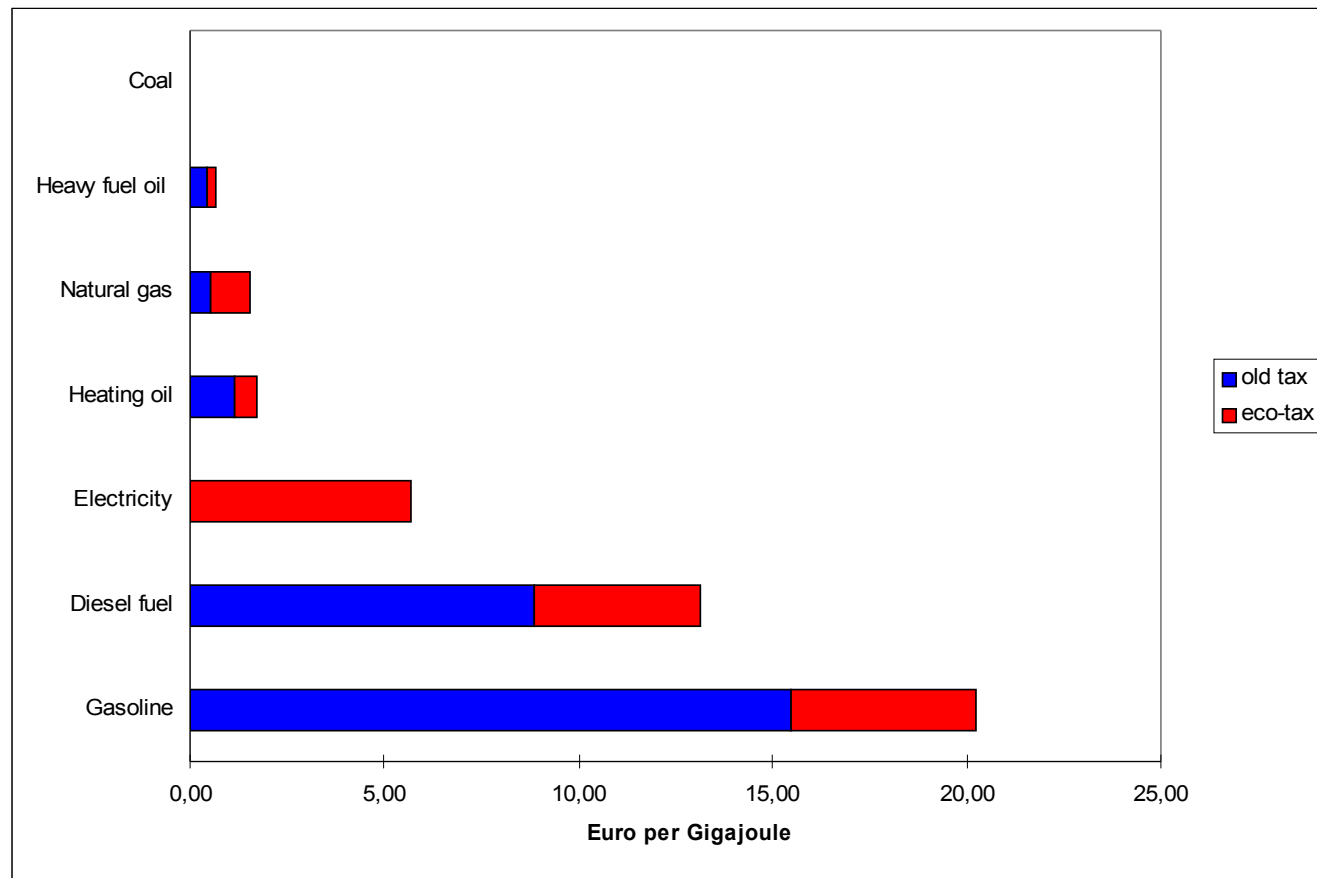
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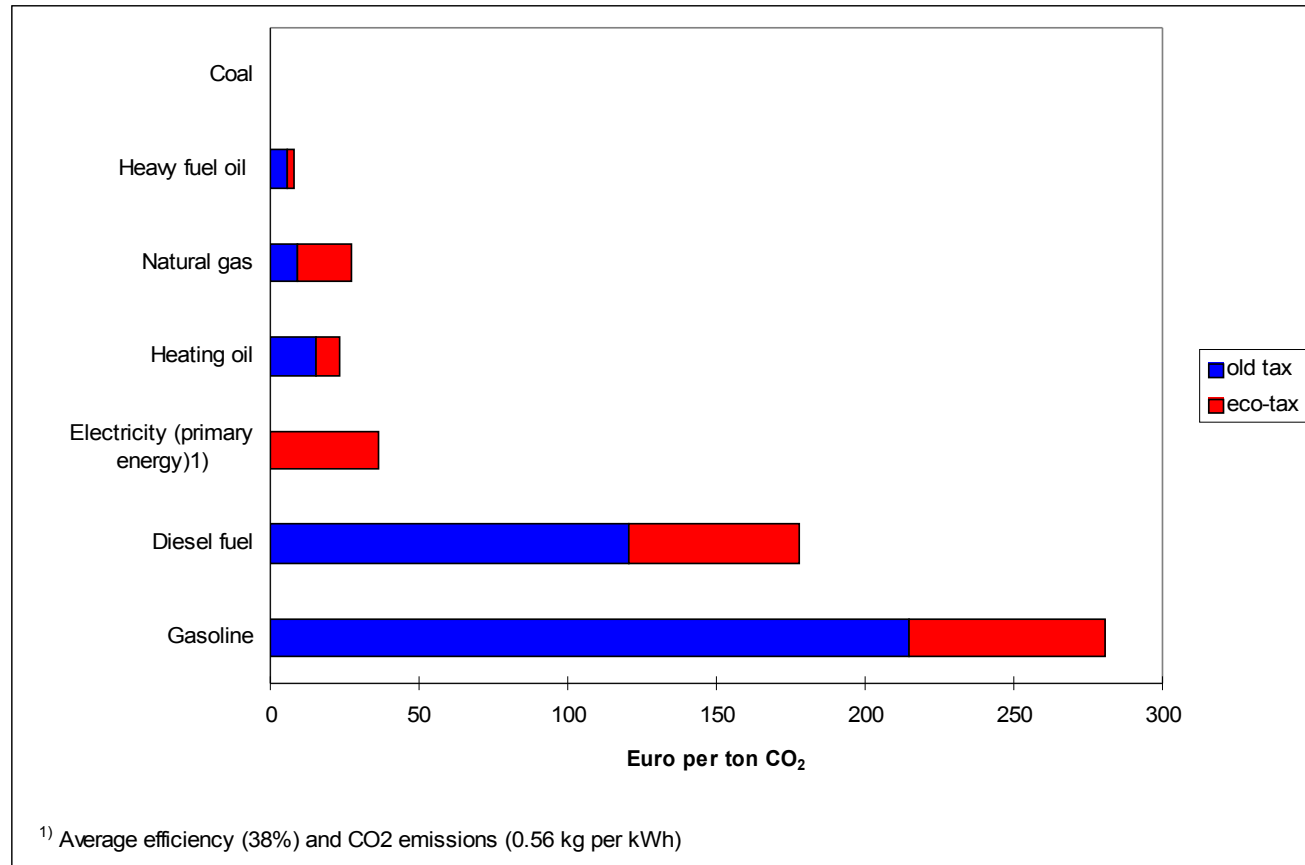
Key Features of the Ecological Tax Reform in Germany

- 5 steps between 1999 and 2003
 - Phasing-in: time for adjustment
- Revenue-neutral tax reform
- Energy taxation: focus on climate change
 - Increase of taxes on petroleum products
 - New tax on electricity
 - Special provisions for energy-intensive production
- Reduction of social security contributions: focus on unemployment
 - Target: reduce statutory social security contributions (SSC) from 42,3% below 40%

Tax rates of eco-tax per Gigajoule



Tax rates of eco-tax per ton CO₂



Reduction of Social Security Contributions

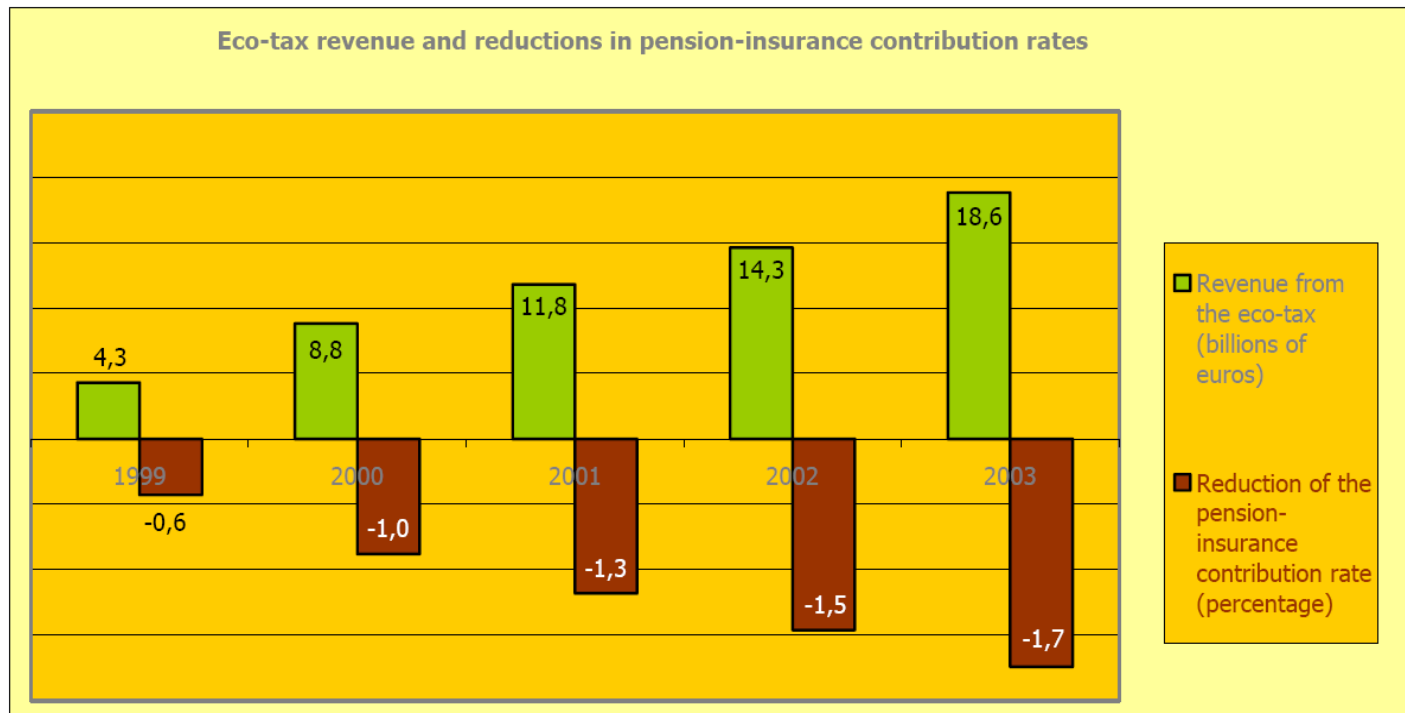


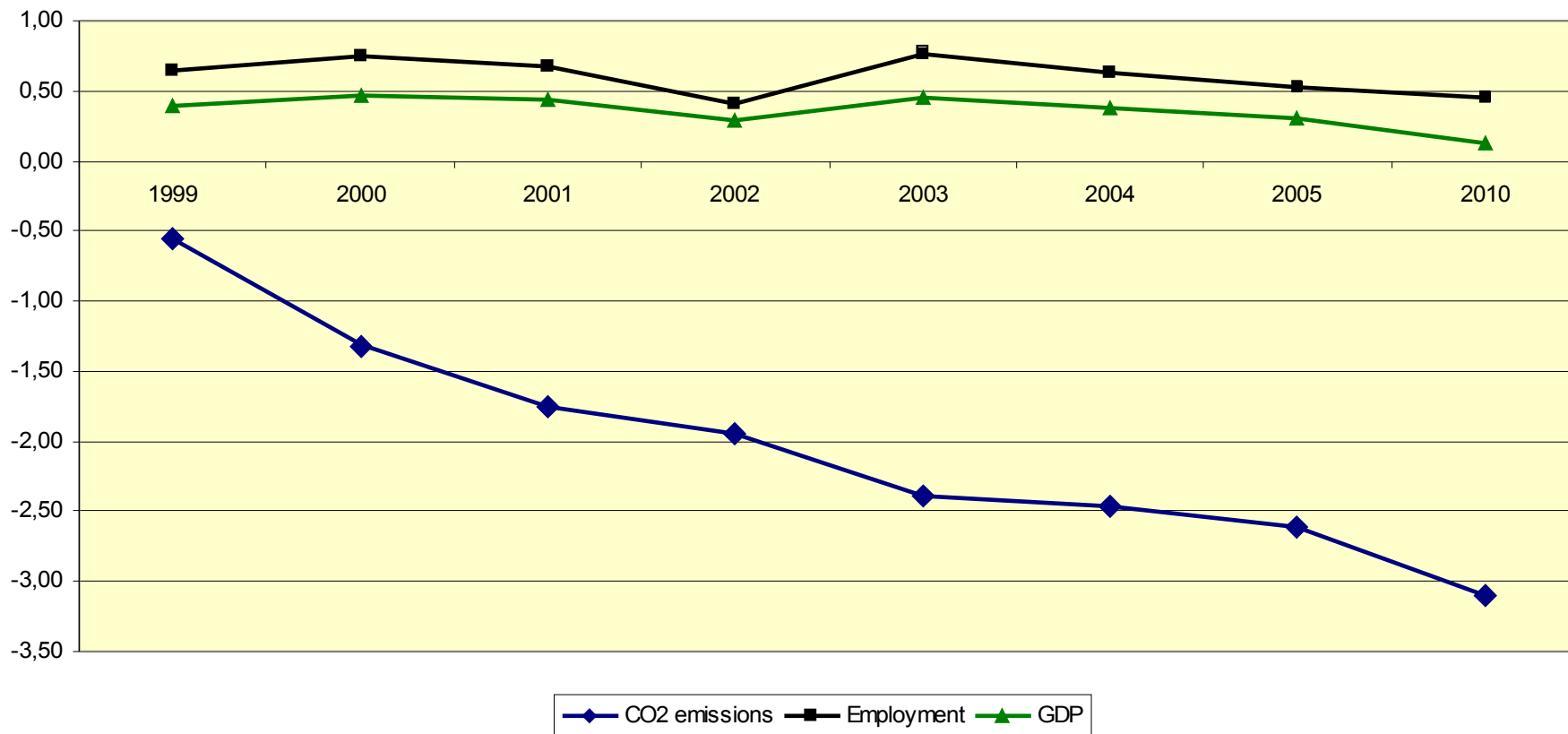
Figure 2, Source: Federal Ministry of Finance (BMF) 2004 (2003: estimated figures)

Effects of ETR in Germany

- Reduction of CO₂ emissions
 - 2 – 3% or 20 to 25 million tons of CO₂
- Increase of employment
 - 0.5% or 250 000 additional jobs (but sensitive to choice of parameters)
- Small effect on GDP
 - May even be positive
- Conclusion: CO₂ reduction can be achieved at relatively low economic costs
- Slightly regressive distributive effects
 - Can be compensated by other tax reform measures

Source: Bach/Kohlhaas (2005)

Effects of ETR in Germany



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Why did Germany succeed to implement an environmental tax reform?

- High unemployment
- Ambitious targets in climate policies
 - Driven by public awareness and voters
 - Weariness of command-and-control policies
- Support from
 - labour unions
 - innovative business
 - green NGOs

Resistance against the ETR ...

**Virtually all desirable policies
create losers as well as winners.**

**Those who lose
- or believe that they may lose –
are likely to resist.**

The result can be paralysis or mediocrity

... and how (not?) to deal with it

Provisions for energy-intensive sectors

- Motive: Fear of adverse effects
 - Economic Effects
 - International competitiveness
 - Premature retirement of capital (physical, human)
 - Distributive effects
 - Environmental Effects
 - Carbon leakage
 - Political resistance
- **Reduced tax rates** of **60%** for all producers of the goods and materials sectors
- **Tax rebates** of all **95%** of tax payments exceeding the reduction of pension contributions
- Impairs incentive to reduce emissions
- Shifts net burden to less energy-intensive energy users and private households
- Current system not compatible with new EU energy tax directive

... and how (not?) to deal with it

Tax refunds for commuters

- High costs
- Favours urban sprawl
- Has been reduced again

... and how to deal with it

- Start early to gain time to learn
- Information and marketing
- Support innovative projects
- Public transport

Perspectives for Future Reform Steps

- The Ecological Tax Reform is „on hold“ in Germany
- In the political debate there is strong „competition“ from European emissions trading
 - But: Emissions trading only for large installations
 - Germany is likely to need further measures to achieve GHG targets, especially for small business, transport and private households

Perspectives for Future Reform Steps

- Integration into general tax reform
 - „Packaging“ necessary to reduce number of losers
- Revise environmentally harmful subsidies
- Gradually reduce tax differentiation by uses or user groups
- European harmonization is desirable, but no prerequisite
- Additional instruments needed in climate policy as well as for employment!

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The need for market-based environmental policies

- Market-based strategy towards sustainability is indispensable
- Most countries still have relatively little experience with market-based instruments in environmental policy
 - Continue experimenting and learning
- Alternative instruments: taxes vs. emissions trading
 - Downstream EU ETS limited to large installations
- Raising revenue and recycling may reduce overall costs
- Accompanying measures necessary
 - Information
 - Support for innovative projects
 - Risk capital

The need for market-based environmental policies

- Pitfall: attempt to prevent structural change
- But: distributive effects cause strong political resistance
 - Packaging can reduce the number of losers
- Market-based instruments hurt the more the more difficult it is to change behaviour
 - Time
 - Information
 - Innovation