



WHY TAX ETERNAL DELIGHT?

A Presentation to the PSI Seminar

The Future of Energy Taxation

by

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Objectives of Energy Taxation

- Internalise environmental costs
e.g. social cost of carbon
- Achieve environmental objectives
e.g. 60% carbon reduction by 2050
- Raise revenue

Taking account of other policy objectives:
e.g. competitiveness, fuel poverty

Internalise Environmental Costs

- Calculate marginal env. cost and marginal benefit schedules
- Set tax at optimal level
- Monitor developments

- Advantages:
 - Comprehensible
 - Rooted in cost-benefit analysis

The Limits of Cost-Benefit Analysis

CBA 'has a fundamental attraction of reducing a complex problem to something less complex and more manageable' (Pearce, 1983)

- Yes, **IF**
 - o Understanding about what is being valued BUT climate impacts very uncertain (e.g. possible catastrophe, migration, loss of small islands etc.);
 - o Agreement on the methodologies of valuation BUT methodologies to calculate social cost of carbon very controversial (WTP, VOSL, discount rates)

Use of 'optimal' calculations in such contexts likely to generate dissent, protest and passion rather than greater manageability

Achieve Environmental Targets

- Set target, sustainability one option
 - SO₂ targets based on critical loads
 - NO_x targets based on health impacts
 - CO₂ targets to avoid dangerous anthropogenic interference with the climate
- 60% reduction in carbon emissions by 2050
 - Carbon rather than energy taxation BUT other policy objectives (coal, fuel poverty)

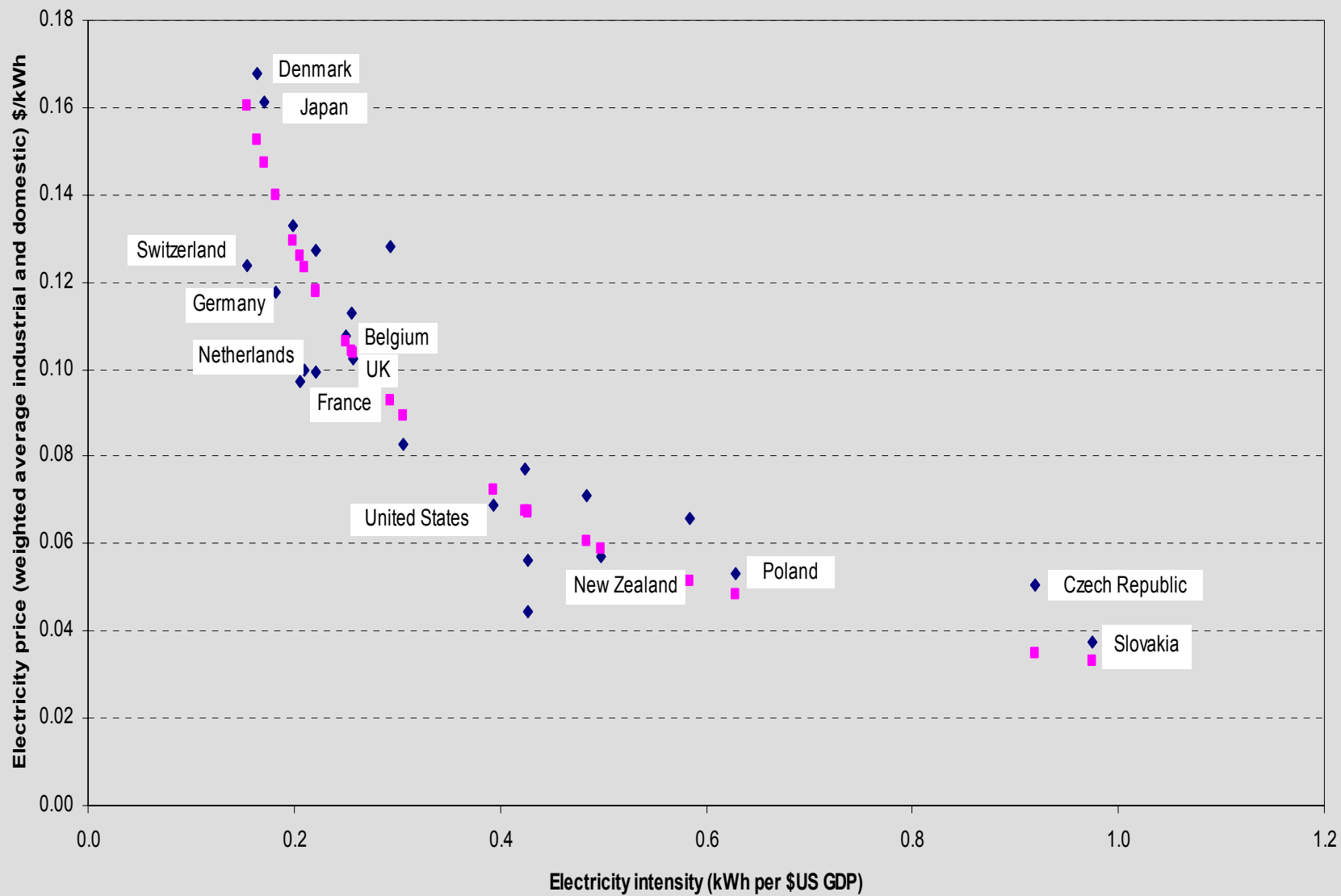
60% Carbon Reduction by 2050

- Very challenging. Historically unprecedented
 - International agreement
 - Policy-driven technological transformation
 - Demand management
 - Efficiency – same service, reduced carbon
 - Conservation – reduced service, reduced carbon
- How to deliver?

The Importance of Prices

- A necessary (but not sufficient) condition of achieving the 60% (and interim) targets is
 - Sustained real price increases of carbon-based energy
 - A widely shared perception that public policy is committed to deliver this
- Could be achieved by increased auction of permits to achieve targets as well as taxes

Demand Curve for Electricity Efficiency (1998)



Tax Design

- Flexible escalator (take account of price changes for other reasons)
- Substantial revenues divided between
 - Support for uptake of low-carbon technologies (small proportion)
 - Substitution for other taxes, e.g. NICs
- Already substantial experience with both approaches

Political Implications

- Low public awareness of rationale for ETs (energy and environmental taxes) and support for them
- Little acceptance of ETs as revenue raisers, benefits of recycling revenues through lower taxes elsewhere
- Effects on fuel poverty
 - Need more efficient housing stock and compensation scheme
- Effects on competitiveness
 - Encourage transformation of EI industries and develop new low-carbon industries to take their place



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