

What happened to economic instruments? The state of play

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Economic instruments in environmental policy

- Emissions Trading / Tradable Permits
 - *Acid Rain program, lead reduction credits, in US. Fisheries ITQs in New Zealand, etc. UK emissions trading for CO2.*
- Emissions taxes, Pollution levies
 - *Water pollution charges, NOx tax (eg Sweden), Landfill Taxes*
- Eco-taxes on products
 - *Motor fuels, Plastic bags, retail pesticides, NiCad batteries*
- Deposit-Refund systems
 - *bottles for soft drinks and beer, motor vehicles*
- Abatement subsidies
- Negotiated / voluntary agreements
- Extended Producer Responsibility (EPR) / liability

The case for economic instruments

- Cost savings through abatement flexibility
- Greater effectiveness through performance incentives
- Innovation incentive
- Less vulnerable to erosion through lobbying and special pleading ('regulatory capture')
- Cost-limiting properties: (but uncertain environmental outcome)

Economic instruments: risks and opportunities for business

- Flexibility reduces overall costs of environmental policy
- Creates opportunities for profitable innovation – “bright ideas” can cut costs
- Business opportunities in industries supplying pollution control equipment etc
- Threats to “competitiveness” from ecotaxes have been high-profile political issue
- But the scope for tax reductions elsewhere, and for exchange rate adjustments, mean that impact on competitiveness involves gainers as well as losers.

US Acid Rain Program

- **1990 Clean Air Act Amendments, Title IV** required major reduction in SO₂ emissions
- Use of emissions trading allowed firms maximum flexibility in compliance – making the sharp emissions reduction possible
- Two forms of flexibility:
 - *"internal"* (within firms with multiple sources – only the total is regulated)
 - *"external"* (through trading of allowances)
- Phase I (1995-99) began with the 263 dirtiest plants: Phase 2 from 2000 extended Title IV to all.
- Allowance prices much lower than forecast – reflecting low-cost abatement innovations

Sweden's NOx tax

- Tax on measured NOx emissions
- Limited to large sources
- Revenues returned to taxpaying firms as a group in proportion to output
- Maintains abatement incentive but avoids distorting competition between taxed firms and others

UK Climate Change Programme

- Three linked elements
- Climate Change Levy
 - tax on energy used by industry
- Climate Change Agreements
 - Negotiated agreements with energy intensive sectors
- Emissions Trading Scheme
 - CO₂ can be traded between CCA members and direct participants (successful bidders in incentive auction)

Waste Management: Extended Producer Responsibility

- makes producers physically or financially liable for the social costs of disposal (including the environmental impact) at the end of the product life.
- can be implemented using:
 - *product take-back mandates*
 - *advance disposal fees*
 - *deposit-refund systems*
- Take-back often through an industry-wide “Producer Responsibility Organisation”
- EPR schemes often require high rates of recycling. (Cost?)
- Aim is to encourage “Design for Environment”, by making producers bear waste management costs
- Many countries have EPR for certain products. EU directives on packaging, end-of-life vehicles, electronics waste reflect EPR.

Developing countries: issues and experience

- Making the price system work better
 - *privatisation, economic deregulation, eliminating subsidies, eliminating price controls*
- Pricing resources and services through user fees
 - *Wastewater Discharge Fees in the Philippines*
- Reforming environmental regulations
 - *better enforcement, greater flexibility for firms*
- Using economic instruments as incentive mechanisms and/or to raise revenues for environmental policy
 - *Deposit-refund systems for solid waste recycling (Taiwan)*
 - *Tradable permits for ozone-depleting substances (Singapore)*
 - *Emissions trading in Santiago, Chile.*
 - *Pollution Levy in China*
- International offset systems
 - *Joint implementation, etc*