Environmental Economics
AEC 829
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Instruments – PART II

Taxes vs Standards

- The Value of Innovation

Economic Incentive Instruments (continued)

- Ambient Charges or Subsidies
- User Charges/fees/natural resource taxes
- Product Charges
- Input Charges
- Resource Management Subsidies
Ambient Charges or Subsidies

- Base the tax of subsidy on the environmental quality of the receiving resource
- Best suited to environmental problems with few regulated parties

User Charges/fees/natural resource taxes

- User charges for municipal waste collection and disposal
- Charges for hazardous material disposal
- Congestion Pricing

Product Charges and Subsidies

- Vehicle taxes or subsidies
- Nuclear waste taxes
- Plastic bag taxes
- Green payments for certain crops
- Cross-compliance
- Can promote life cycle approach
Input Taxes or Subsidies

- Taxing fertilizers
- For nonpoint—efficient tax would vary by location and application method
- Tax rates tend to be so high as to be politically infeasible
- Can lead to environmentally harmful substitutions

Resource Management Subsidies

- Cost sharing for certain Practices (non-point)
- Subsidies to organic farming
- Efficiency greatly improved with targeting to where expected net social benefits are the greatest
- Conservation Security Program

Economic Incentive Instruments (continued)

- Deposit Refund Systems
- Non-compliance Fees
- Performance Bonds
- Insurance
Deposit Refund Systems
- Refillable Bottles
- Tire Recycling Fees
- Pesticide Containers

Noncompliance Fees
- Fees for Violation of a standard or law
- Usually proportional to damage caused

Performance Bonds
- A deposit paid, repayable on achieving adequate compliance
- Bond price must be set high enough to get behavior, but not so high as to create exit
- Generates revenue
Performance Bonds

- Well understood costs of environmental damage
- Observable regulated party actions
- Few agents to monitor
- Fixed time horizon for remittance
- Well define “states of nature” and their likelihood of occurrence
- Relatively small bond value

Insurance

- Insurance against lower profits if experiment with environmental protection systems
- Insurance against environmental risks

Insurance Against Environmental Risks

- The loss must be amenable to risk pooling (i.e. multiple risks are not correlated)
- Must be a clear loss
- Loss must e in well defined period of time
- There must be an ability to allow a calculation of the premium
- Moral hazard must not be too severe
- Adverse selection must not be significant