

Economic Instruments for Pollution Control

By

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EE for Pollution Control

- Economic Instruments vs Command and Control
- **Command and Control:**
 - Input Control, prohibitions
 - Technology Controls
 - Output Quotas,
 - Emission Licenses
 - Location Controls

Type of Economic Instruments

- Emission Charges/Taxes
 - Air pollution charges
 - Carbon/Energy taxes
 - Water affluent charges
 - Noise pollution charges
 - Fertilizer and pesticide taxes
- Product charges
 - nuclear waste, plastic bags,

Type of Economic Instruments

- **User Charges/natural resources taxes**

- Municipal solid waste charges
- Hazardous waste charges
- Wastewater charges
- Aircraft noise charges
- Water extraction charges
- Congestion pricing

- **Subsidies**

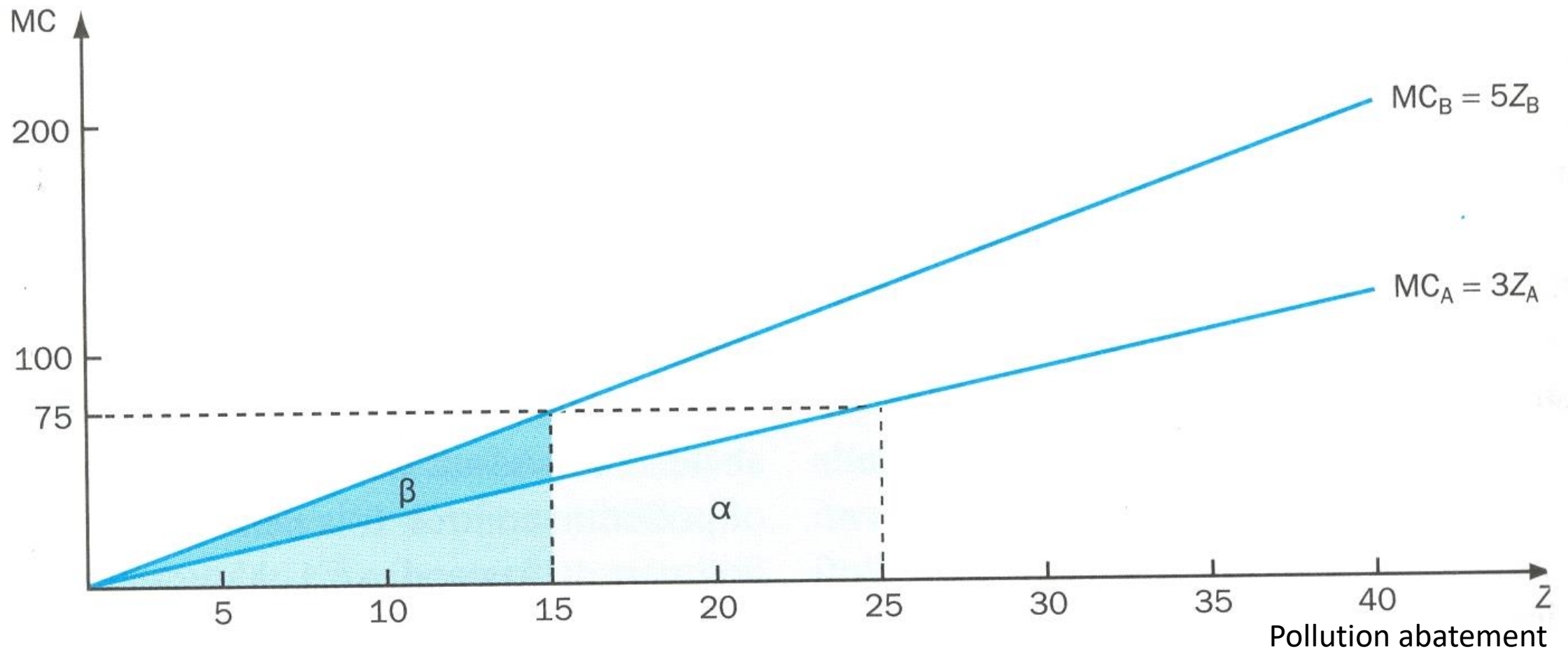
- Renewable energy subsidies
- Ecological farming

Type of Economic Instruments

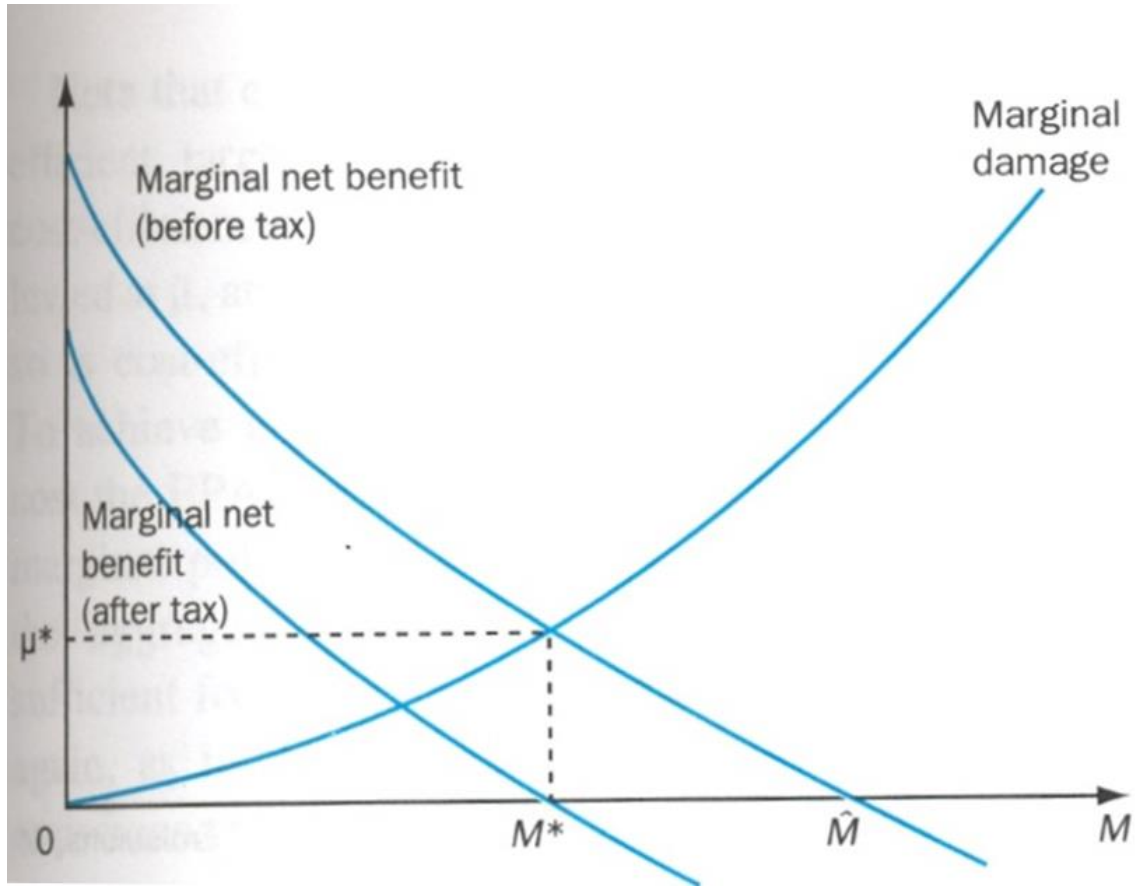
- **Marketable Permits**
 - CO2 emissions from power plants
 - SO2 trading in US
- **Deposit refund systems**
 - Bottles, used batteries
- **Non Compliance fees**
- **Performance Bonds**
- **Liability payments**

Institutional Approaches to Pollution Control

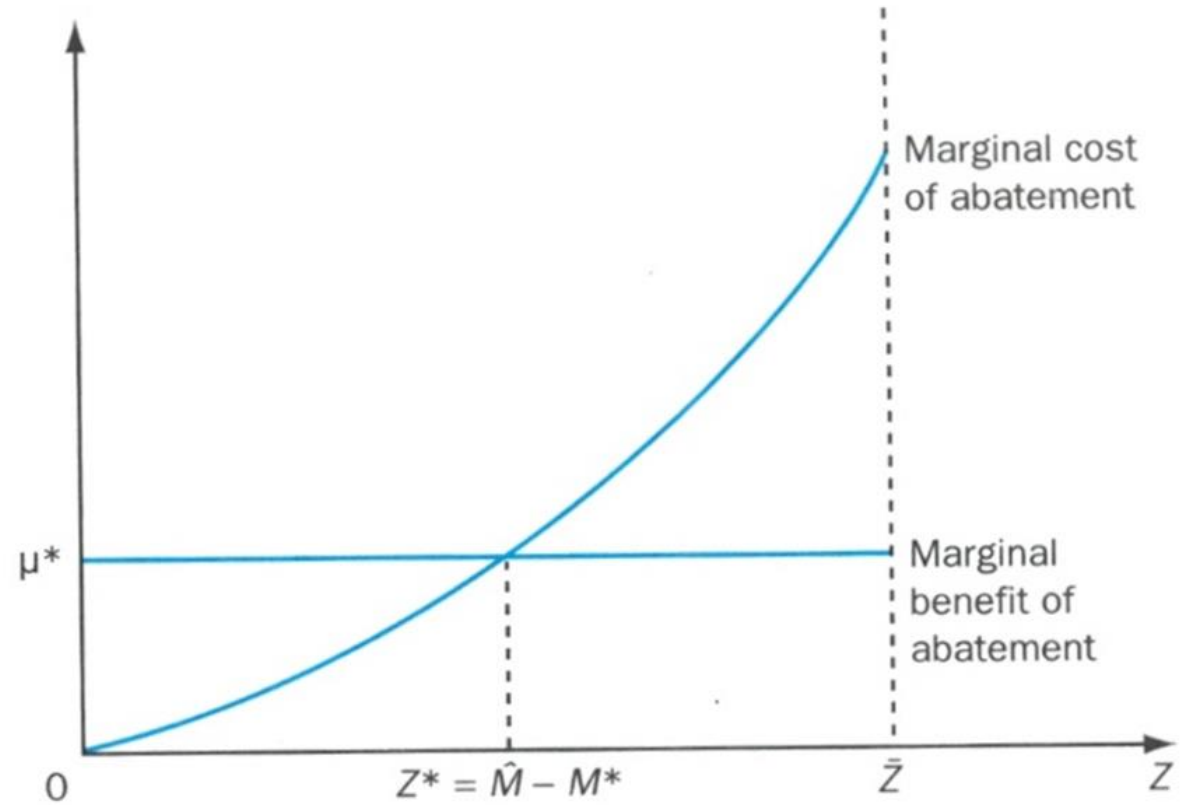
- Facilitate bargaining
 - Information disclosure on polluters
- Specification of Liability
 - Codification of environmental liability
- Development of social responsibility
 - Education
 - CSR



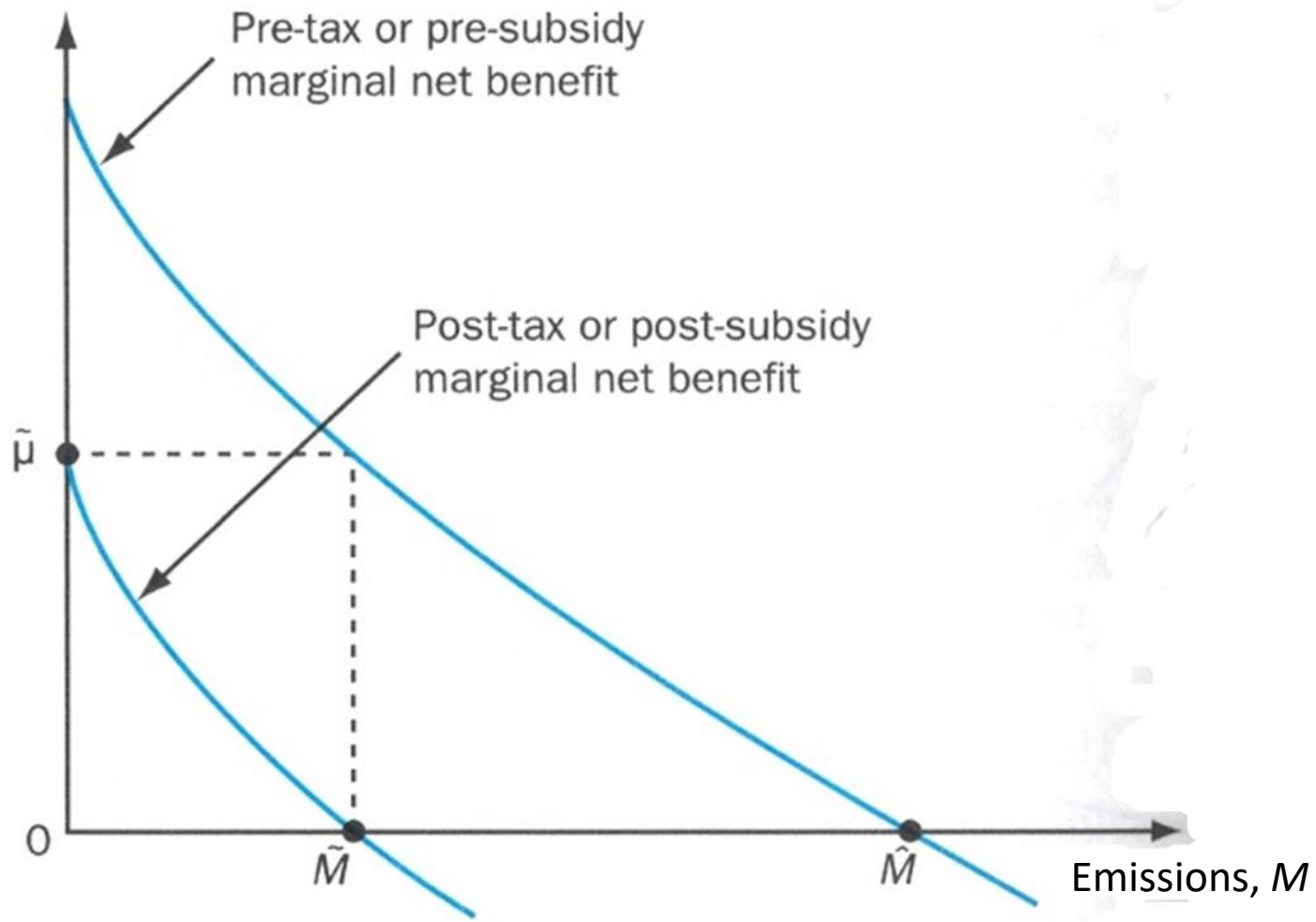
Least Cost Pollution Abatement for Two firms



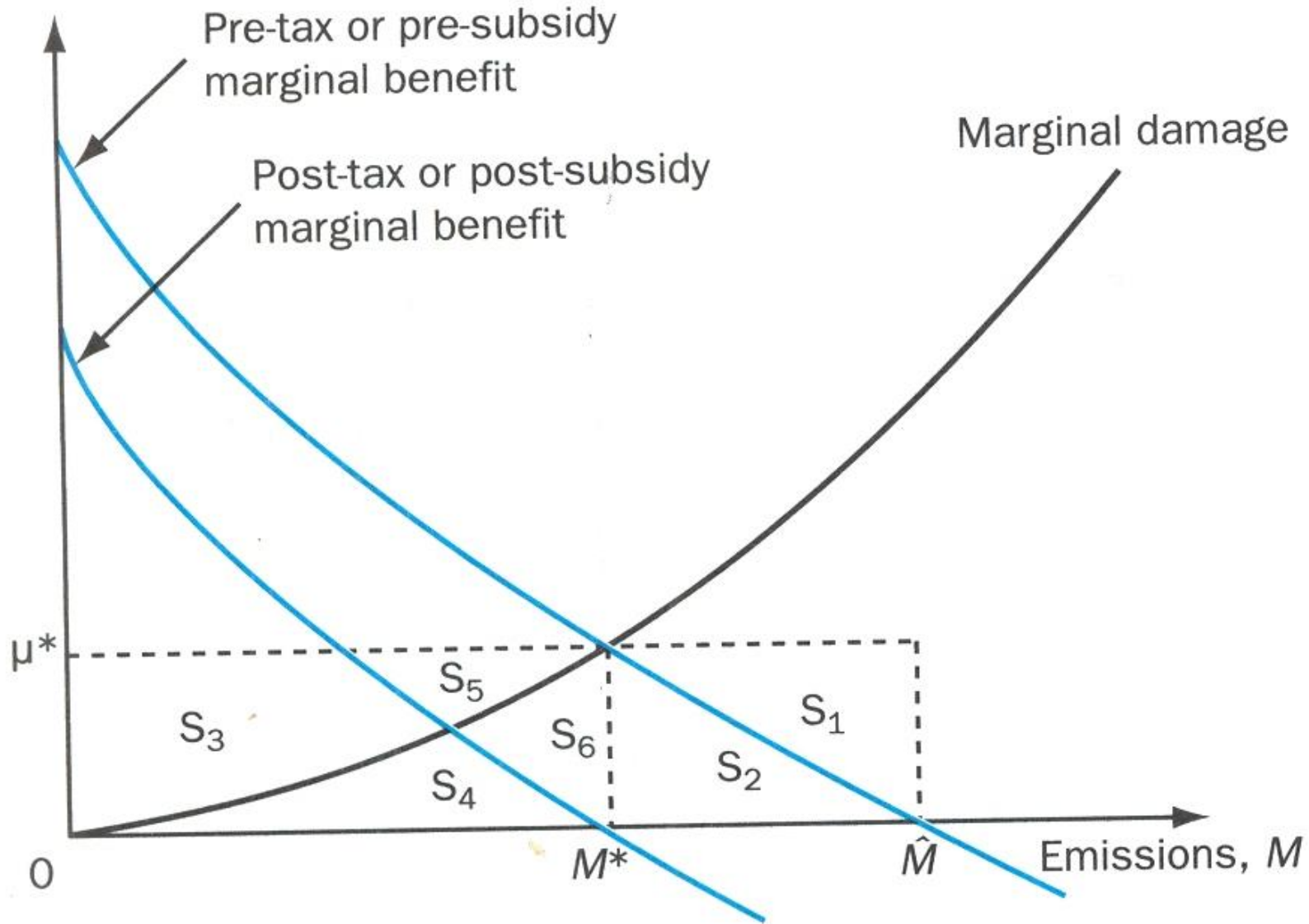
An Economically efficient emissions tax



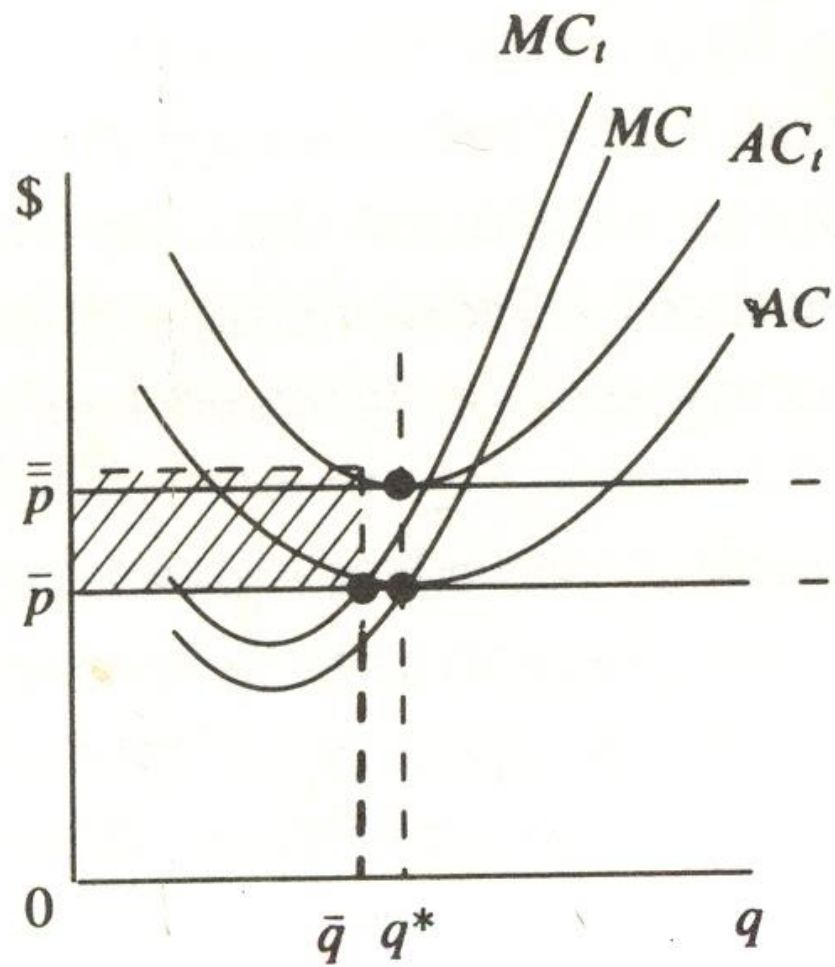
The economically efficient level of Emissions abatement



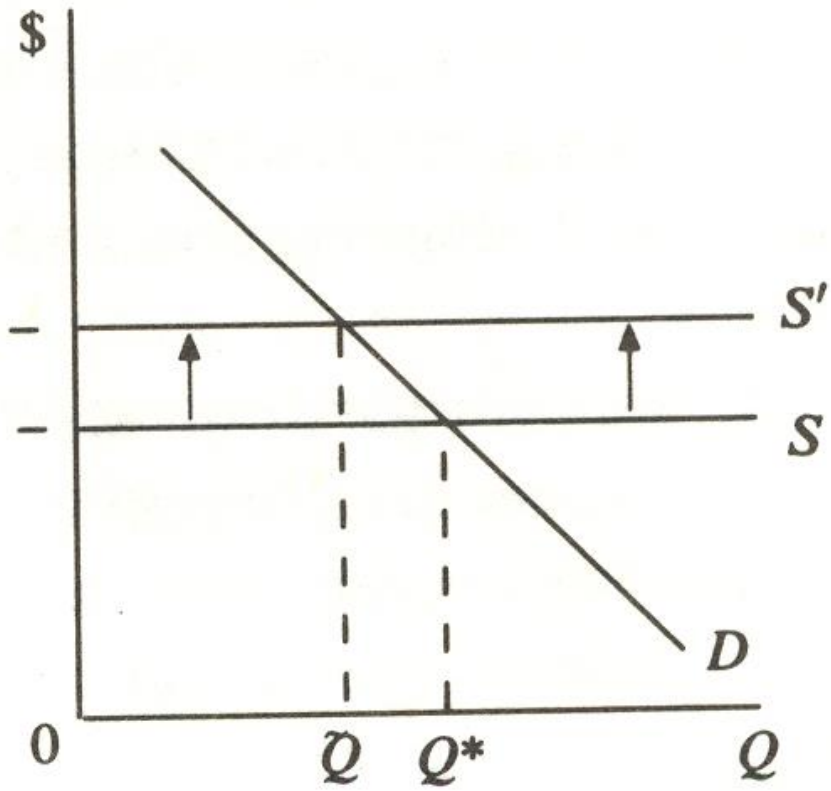
Emissions tax and abatement subsidy schemes



Emissions tax and abatement subsidy schemes: a comparison

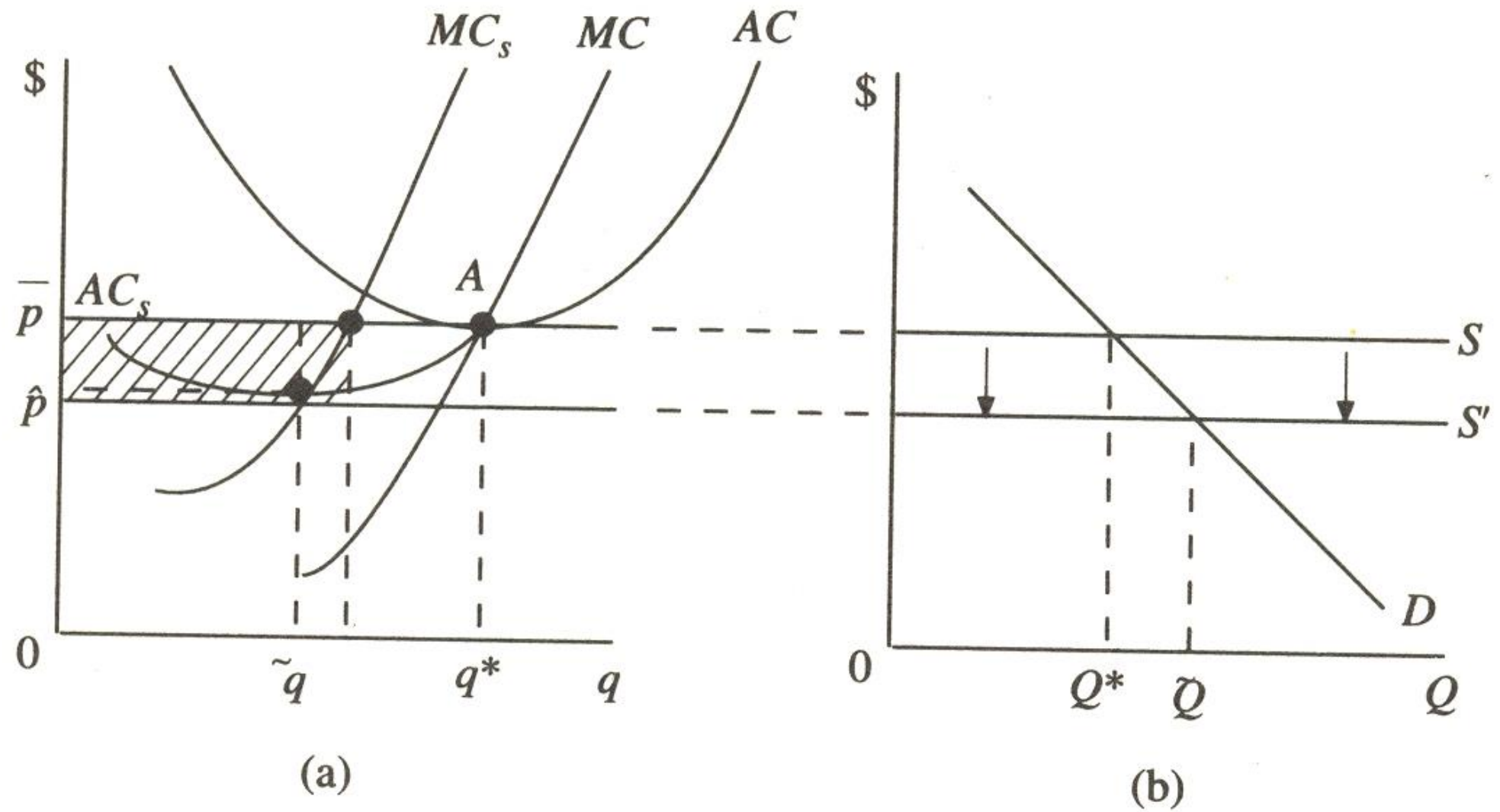


(a)



(b)

Short and long run impacts of a pollution tax



Short and long run impacts of a pollution subsidy