

Plan of talk

- How should CO2 emissions be priced?
- Advantages of CO2 taxes over emissions trading
- Practical obstacles to CO2 taxes
- Desirable features of emissions permits

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CO2 Price

CO2 price should equal the world costs from the future global warming potential per ton of current CO2 emissions.

Encompasses:

- Damages to agriculture
- Costs of protecting coastal regions
- Health impacts
- Risks of major world GDP losses

Most estimates put the damages from current CO2 emissions at between \$5 and \$15 per ton.

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Arguments for Higher CO2 Price

1. Stern Review—damages are \$80 per ton of CO2
 - More pessimistic about the extent and damages from climate change
 - No discounting
2. Price of \$25 per ton is needed to induce new coal plants to be compatible with CO2 capture and sequestration technologies.

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Taxes versus Permits

2 economic advantages of CO2 taxes

1. Fiscal

- Revenues from CO2 taxes could be used to reduce other taxes.
- Revenue-recycling benefit forgone under emissions trading.
- Costs of reducing CO2 emissions are much lower under CO2 tax than emissions trading; around \$8-\$20 billion per year for \$5-15 tax.

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2. Price of CO2 is Volatile under a permit system

- May deter investments in CO2-saving technology.
- Makes economic sense to allow nationwide emissions to vary on a year-to year basis

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3 Practical Arguments Against CO2 Taxes

1. Politically difficult to implement a new tax.
2. Revenues might be “wasted”.
3. Influential producer groups may need compensation.

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Improving Cap-and-Trade

1. Auction as many allowances as possible.

2. Limit permit price volatility by:
 - (a) Imposing a price ceiling
 - (b) Allow permit banking to create a price floor

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Conclusion

- Ideally, we should implement a revenue-neutral CO₂ tax of around \$5-\$15 per ton, and ramp it up over time.

- Failing that we should introduce an appropriately designed cap-and-trade system.

- The hard part is bringing large, rapidly developing nations into an international emissions control regime.

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