

## **Should climate change be addressed through taxation? If so, how should the price of carbon emissions be set?**      good, no comments

Thesis: Taxation is one way to address climate change, but, because of incomplete information and political challenges, using a cap-and-trade system is more effective.

### **Why address climate change?**

- Climate change can be modelled as a negative externality which leads to a market inefficiency.
- Government intervention could therefore lead to a Pareto-improvement.
- However, the fact that much of the harm is borne by future generations complicates the problem. Possibly talk about discounting future generations and making transfers from them to us.

### **Taxation**

- Show using the graph with Marginal Benefit, Marginal Cost, and Marginal Social Cost how climate change can be addressed through taxation and what the appropriate Pigouvian tax is.
- However, there might be informational difficulties with this. It is hard to determine what the MSC and MB are, and also hard to measure how much pollution certain actors cause.
- Political challenges: taxes are not popular, a cap-and-trade system will probably be more popular and you also see that most countries introduce a cap-and-trade system.

### **Cap-and-trade**

- Show using a graph how tradable permits work
- With perfect information, these result in the same Pareto-efficient outcome. Show using the graph in the slides how it depends on the relative steepness of the MB and MSC curve whether quota's or taxes lead to a higher DWL with imperfect information.
- Might also be useful that with cap-and-trade you can be certain how many pollution will really be emitted.
- Both cap-and-trade and taxation suffer from a prisoner's dilemma: if one country does it, other countries might have an incentive to free-ride and not implement quota's/taxes.
- Government revenue, taxes automatically lead to government revenue, cap-and-trade do not, though you can maybe do auctioning to get this.

### **Conclusion**