

Lecture 15: Non-economic instruments (legal and informative instruments)

- Important because these instruments provide extra opportunities (when std.instruments "fail")
- Purpose
 - ▶ place (voluntary, legal and informative instruments in a wider context
 - ▶ provide pro's and con's of these instruments

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Outline

- Non-economic vs. economic instruments
 - ▶ voluntary -- see lecture no. 9
 - ▶ information
 - ▶ legal (restrictions)
- Information and legal instruments
 - ▶ rationale for adoption
 - ▶ comparison with standard regulation
 - ▶ possibility of combining with standard regulations

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Non-economic vs economic instr. (1)

- Economic instruments (taxes, various sorts of payments/subsidies, tradable permits, auctions, menus)
- Mechanism: change in external incentives
 - ▶ assign prices to goods and services that previously were not priced
 - ▶ change relative prices
- Basic assumption
 - ▶ rational choice desired for full effect
 - ▶ ... but not needed to have an impact in the desired direction

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... non-economic vs economic instr. (2)

- Individual i derives utility from increased income as it eases the budget constraint (and hence allows for increased consumption of private goods, and some public goods where access is not free)
- Suppose an agent maximizes utility, while policy instruments looks at profits (income)

Use indirect utility function: $V_i(M_i, \mathbf{p}; \mathbf{z})$ w/ partial deriv.:

$$V_{i,M}(M_i, \mathbf{p}; \mathbf{z}) > 0, \quad V_{i,p_j}(M_i, \mathbf{p}; \mathbf{z}) \leq 0, \quad V_{i,z_k}(M_i, \mathbf{p}; \mathbf{z}) \geq 0$$

utility incr. w/ incr. money income utility non-incr. with price incr. utility non-decr. w/ more pub.goods

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... non-economic vs economic instr. (3)

- Partial derivative $V_{i,M}(M_i, \mathbf{p}; \mathbf{z}) > 0 \Rightarrow U_{\max}$ individual responds to financial incentives, although to lesser/smaller extent than exp. profit max agent
- Suppose that the individual instead of maximizing utility, engages in satisficing behavior
 - ▶ case 1: policy reduces M_i so that past levels of satisficing consumption can no longer be achieved \Rightarrow agent adjusts behavior in an unpredictable way
 - ▶ case 2: conventional policy does not affect M_i in a way that changes the agent's choice set \Rightarrow no change in behavior
 - ▶ lesson: taxes may work, payments will not

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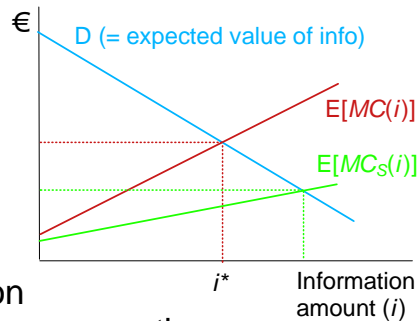
... non-economic vs economic instr. (4)

- Economic instruments: nothing (or little) to change underlying preferences of agents (internal motivation/external motivations)
- Legal instruments have two impacts
 - ▶ external: you break the law and if guilty \Rightarrow penalty
 - ▶ internal: laws change how rights are perceived
- Informative instruments
 - ▶ mainly internal: agents receive info that changes his/her perspectives \Rightarrow changed behavior
 - ▶ external: if info. changes agent's budget constraint, and hence attainable consumption bundle

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Information/pedagogical instruments (1)

- Mechanism:
 - ▶ increases agents' level of knowledge and/or
 - ▶ evokes norms of good conduct
- Information - an economic interpretation
 - ▶ Information is costly to acquire
 - ▶ providing info lowers costs \Rightarrow agents more knowledgeable
- Exp value of information usually assumed to be non-negative



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... information/pedagogical ... (2)

- "Information is not information" = may matter how information arrives
 - ▶ active search for info.
 - ▶ info. campaigns - info. given consistent with prior beliefs & relevant?
- Information - and the choice set
 - ▶ ... agents' possibilities to change behavior = changing behavior must not be too costly (effort/time/pure costs)
 - ▶ rights and relative prices
 - ➔ telepriser.no / customers own their mobile phone no.

		Matches prior beliefs	
		Yes	No
Does agent consider info. relevant?	Yes	behavior changes	protest?
	No	may confirm prior	who cares?

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... information/pedagogical ... (3)

- Possible impacts of information
 - ▶ changes preferences - "intrinsic motivation"
 - ▶ changes the perspective on what is "the right thing to do" ⇒ change norms (through social processes)
 - ▶ changes the understanding of the opportunity set (what can be done and what is preferable to do)
 - ▶ ... but preferences are necessarily not revealed in changed behavior
- Information :: a soft policy measure
 - ▶ expected long term impacts >> expected short term impacts
 - ▶ (to an even stronger extent than what is the case for economic instruments)

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... information/pedagogical ... (4)

- Information - main driver:
 - ▶ underlying preferences (may be) changed (over time)
- Standard econ. framework - main driver:
 - ▶ $E[U(\text{behav. change})] > E[MC(\text{behav. change})]$
- Institutional econ.
 - ▶ norms change, and people do not always max own utility ⇒ behavioral change more likely

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... information/pedagogical ... (5)

- Case: consider 2 dictator games (Dana 2005)
- Game 1
 - outcome A: dictator gets 6, other gets 1
 - outcome B: dictator gets 5, other gets 5
 - ▶ 74 % chose B
- Game 2 - as game 1, but with hidden info. that can be acquired by pressing button. Dictators in one of
 - A1+B1: gets 6, other gets 1 OR gets 5, other gets 5
 - A2+B2: gets 6, other gets 5 OR gets 5, other gets 1
 - ▶ dictators in A1+B1, 50% chose to reveal info., and 63% chose A1
 - ▶ dictators in A2+B2, 63% chose to reveal info., and 81 % chose A1

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... information/pedagogical ... (6)

- The Dana (2005) study
 - ▶ some sort of preference reversal
 - game 1: 74% chose B (the most egalitarian alt.)
 - game 2: majority of those seeking info switched to A (the least egalitarian alt./max dict. payoff most)
 - ▶ ... a demonstration of a situation where decision makers may want to remain ignorant
 - ▶ ⇒ challenges the usual notion that the expected value of info. is non-negative
- Impacts of information depend on
 - ▶ actively seeking or "passively" receiving info.
 - ▶ match with (Bayesian) prior
 - ▶ active seek proportional to net exp. gains of info

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Legal instruments (1)

- Laws have the following impacts
 - ▶ instrumental: constrain agents' choices: agents calculate the net gain of following vs. breaking the law
 - ▶ normative: following the law is a matter of principle (voluntary compliance - obligation/commitment)
- Legitimacy: a prerequisite for compliance
 - ▶ distributive justice (fair outcomes)
 - ▶ procedural justice (law made in a fair way)
 - opportunity to take part/present arguments (hearing)
 - neutral process
 - policy makers' motives are accepted
 - outcomes considered fair

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... legal instruments (2)

- Case on legitimacy: Manure regulations in Britain (Lowe & Ward 1997 - not in compendium)
 - ▶ law and fines alone ⇒ "hide and hunt" game between farmers and authorities, where it appeared farmers did not accept the premise for the regulation
 - ▶ coupled with information ⇒ created acceptance for rationale for regulation ⇒ increase in compliance (although some fines still levied)
- Laws may establish new standards for what is considered fair/legitimate
 - ▶ ex. Norwegian smoking law
 - ▶ impact of procedural justice

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Summary

- Impacts of economic instruments may be over-estimated if agents make decisions based on other criteria than those underlying regulations
- Information
 - ▶ expected gains and cost of acquiring info
 - ▶ consistency with (Bayesian) priors
 - ▶ actively seeking or "passively" receiving info
 - ▶ complicated area where much research takes place
- Legal
 - ▶ norm building if procedural justice perceived OK
 - ▶ legitimacy of law (links to information provided)

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Concept questions

- Under what conditions would we expect legal and informational instruments to
 - ▶ perform well?
 - ▶ perform poorly?
 - ▶ (before responding be careful to define performance)
- How do informational, legal and economic instruments complement or reinforce each other?

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