

# Market Failure and Government Intervention

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# Why intervene?

Economists generally believe in the invisible hand: the market and competition are the best ways to allocate resources. In fact, redistributing income can be very bad for the economy.

## Okun's Leaky Bucket

- ▶ taxing the rich reduces their incentive to be productive, creative
- ▶ giving money to poor reduces their incentive to work
- ▶ redistributing slices of the pie shrink the pie
- ▶ or are like a leaky bucket

# Why intervene?

However, there are reasons for govt intervention.

We won't discuss monopoly power today, but other important reasons include:

- ▶ Externalities
- ▶ Public goods
- ▶ Common resources

# Externalities

- ▶ Defn: an externality is the uncompensated impact of one person's actions on the well-being of a bystander
- ▶ Positive (research) or Negative (pollution, contagious disease)

# Graphing externalities

negative

positive

Production

Consumption

# Solution 1

Coase Theorem: if private parties can bargain without cost, they can solve the problem of externalities on their own

→ doesn't usually work b/c:

- ▶ there are transaction costs
- ▶ parties can't agree
- ▶ there are many parties to organize

## Solution 2

Govt Regulation: quotas, specific rules, etc.

→ isn't perfect b/c:

- ▶ requires a lot of knowledge about the industry
- ▶ inflexible (when times change, need new rules)
- ▶ doesn't encourage efficient allocation of pollution reduction (it is cheaper for some to abate than others)
- ▶ doesn't encourage abatement beyond regulation

## Solution 3

### Taxes and Subsidies:

- ▶ encourages more abatement than regulation
- ▶ encourages efficient allocation of abatement
- ▶ but govt has to choose right tax rate

**Note:** On the next page is proof that there are efficiency gains to this kind of tax. **I assume that all tax revenue goes to the bystanders.**

# Welfare gain from Tax on Negative Externality graph

## Welfare gain from Tax on Negative Externality

	<u>Before Tax</u>	<u>After Tax</u>	<u>Change</u>
CS	$A+B+C+D$	$A$	$-B-C-D$
PS	$F+G+H+I$	$I$	$-F-G-H$
By-standers	$-B-C-F-G$	$-$	$+B+C+F+G$
	$-D-E1-H-E2$		$+D+E1+E2+H$
TS	$A+I-E1-E2$	$A+I$	$+E1+E2$

- Dwt Loss of Eqbm: (social cost > value) E
  - Cs and Ps profited at the expense of the bystanders
  - CS down, PS down, TS up
- e.g. “sin taxes” taxes on alcohol, tobacco, gasoline

## Solution 4

### Tradable Pollution Permits:

- ▶ Govt decides amount of total pollution allowable.
  - ▶ Passes out pollution permits summing up to limit.
  - ▶ Firms can trade permits.
  - ▶ Firm A, with low abatement costs, sells permit.
  - ▶ Firm B, with high costs, buys.
- Using Coase's Theorem.
- Like a tax, but don't have to know the right tax rate.

# Public Goods

- ▶ Defn: **public goods** are goods that anyone can use without paying (not excludable) and are not diminished by each person's use (not depletable)
- ▶ Defn: **free riders** are those who receive the benefit of a good but avoid paying for it
- ▶ Examples: national defense, research, absence of poverty, snow removal, flood control, mosquito control, public radio, health knowledge
- ▶ Note: not all govt gds & services are public goods – e.g. education is not a public good (excludable and depletable). The govt provides it because it has positive externalities.

# Solution

- ▶ do cost-benefit analysis
- ▶ if benefits outweigh cost, govt should collect taxes and provide the good

# Common Resources

- ▶ Defn: **common resources** are goods that anyone can use without paying (not excludable) and are diminished by each person's use (depletable)
- ▶ Tragedy of the Commons: As pop of people and sheep grows, grazing land is destroyed. If there had been coordination, they could have maintained the land.
- ▶ Examples: fish in the ocean, environment, oil in the ground

# Solution

- ▶ regulate
- ▶ tax
- ▶ turn into private goods

# Interventions in Health

- ▶ Taxes and subsidies – health insurance, sin taxes
- ▶ Public Provision – support of public hospitals, VA hospitals
- ▶ Transfer programs:
  - ▶ Medicaid – health care for poor
  - ▶ Medicare – health care for aged
- ▶ Regulation – FDA, OSHA, mandated benefits
- ▶ Research – NIH, NSF
- ▶ Public Health Initiatives – Healthy People 2010

# Competitive Strategies as Interventions

## Health savings accounts

- ▶ individual (+employers) put money in tax exempt account
- ▶ purchase low-cost high-deductible insurance plan
- ▶ pay out-of-pocket for most health expenses
- ▶ if amount left over, rolls over to next year
- ▶ encourages individuals to use care sparingly, sensitive to price
- ▶ main problem: adverse selection, healthy people like them, sick people will drain account often, choose more expensive insurance plans raising premiums (due to higher risk pool)

# Competitive Strategies as Interventions

## Prescription drug benefit plan

- ▶ govt subsidizes private insurers to offer seniors drug plans
- ▶ govt cannot negotiate lower prices for drugs, insurers must do it (controversial – keeps innovation going, lets market do work, no info required of govt, good for pharm industry)

# Doughnut hole

