

## Final Review

### I. Intro to Public Economics

A. When should the government intervene?

- Lesson of basic micro: the private market equilibrium is optimal for a market that meets the criteria of perfect competition.
- Need to ask: where is the market failure that causes a deviation from perfect competition?

B. How should the government intervene?

C. What is the effect of government intervention on economic outcomes?

- Sometimes, one policy is more efficient. Example: externality with heterogeneous firms.
- Important to think about direct and indirect effects of a policy. Individuals and firms change their behavior in response to the policy. Example: free care for people without insurance.

D. Why do governments do what they do? Political Economy.

### II. Externalities

A. Definition

- Definition of externality: actions of one individual affect another individual in a way that is outside of the market mechanism. At private equilibrium,  $SMC \neq SMB$ .
- There is overproduction or underproduction of the good because people don't take into account the additional benefit or cost the production or consumption of the good imposes on society. There is a dead-weight loss (DWL).

B. Private Sector Solutions: Coase Theorem

C. Public Sector Solutions

- Pigouvian taxation
- Pigouvian subsidy
- Quantity regulation
- Tradeable permits

### III. Public Goods

A. Definition

- Public goods are non-rival (my consuming it does not prevent you from consuming it) and non-excludable (I can't stop you from consuming it).
- Optimal level of provision of public goods: since both people are able to consume the good, set sum of  $MRS = MRT$ .

## B. Private provision of public goods

- Public goods problem: can be described as a free-rider problem or a positive externality. The result is underprovision by the private market.
- To find level of private provision, use Nash bargaining (what do I want to do, holding your actions constant).

## C. Public Provision

- Crowdout: you reduce private provision to offset increase in public provision. Mitigated by warm glow model and if you are taxed more than you were contributing.
- Basic principle: if you start from an individual optimum and the environment changes, if you are able to undo this change to get back to the optimum, you will.

## **IV. Political Economy**

### Cost-Benefit Analysis

- Idea: examine MRS and MRT from public project to decide whether to do it.
- Key concepts: discounting, setting up a PV calculation (do if  $PV > 0$ ), choosing discount rate, valuing costs and benefits (market price; shadow price; revealed preference – compensating differentials/hedonics; contingent valuation), distributional concerns, uncertainty.

## **V. Fiscal Federalism**

### A. Tiebout

- Mobility results in market-like solution to public goods problem. People “vote with their feet,” self-select into towns with identical people who want the same amount of public goods and pay for this with taxes. This results in competition among towns and efficient provision. Only works under certain assumptions.

### B. Inter-governmental grants

- Types of grants: conditional (matching, closed-end match, non-matching) and unconditional/block grant.
- Flypaper effect

## **VI. Social Insurance**

### A. What is social insurance?

- insurance against adverse events i.e. unemployment, living too long, needing to retire too early, etc.
- features of SI: mandatory participation, eligibility and benefits as a function of contributions, benefits tied to an event, benefits not means-tested.
- If actuarially fair insurance market, risk averse individuals want full insurance (full consumption smoothing).

## B. Reasons for government intervention:

- Adverse selection and missing markets. The “Lemons Problem” says that, at any insurance price, only people for whom it’s a good deal will buy, so insurers can’t make any money.
- Externalities
- Administrative costs fall as pool gets bigger (closer to actuarially fair insurance when admin costs are lower).
- Paternalism: People are myopic when they make insurance decisions and under-insure
- Samaritan’s Dilemma: gov’t can’t commit to not help you, so it’s rational for you to under-insure!

## C. Problem with social insurance:

- Moral hazard: by removing adverse selection, we encourage adverse behavior.

Fundamental tension between insurance and incentives!!

## **VII. Important Types of social insurance**

- Social Security
- Unemployment insurance
- Disability insurance
- Worker’s compensation

## **VIII. Health Care**

### A. Facts

- Spend about 14% of GNP on health care, very heterogeneous outcomes.
- *Medicare* for elderly, *Medicaid* for low-income (Know the difference!)
- Rationales for government involvement? 1) physical and financial externalities, 2) offset effects, 3) equity, 4) Job Lock!!

### B. Moral Hazard

- Comes from unobserved severity of illness. Insurance decreases marginal cost to me, so I overconsume health care, leading to DWL. May be overconsuming on the “flat of the curve”, so not getting a lot of health benefits.
- RAND health insurance experiment showed that demand for health care is not inelastic. Also, showed that insured people are likely on flat of curve: people with more health care weren’t better off!

### C. Private HI Issues

- Between 30 and 40% of uninsured are offered HI by employers. So uninsurance problem is not just about access, but about non-takeup.
- Employers don’t always pay full price of HI.
- Adverse selection in choice of health insurance plan (Harvard study)
- Cost savings from competition.
- Managed Care/HMOs reduce moral hazard on provider’s end. Seem to lower cost, because of lower provider prices. No evidence of lower quality. Also no evidence that they control cost growth!

#### D. Uninsured and Medicaid

- Chart about how Medicaid actually affects health. Goes from policy to eligibility to coverage to utilization to cost-effectiveness. Need to consider all of the links (i.e. takeup and crowdout determine how eligibility affects coverage).
- Medicaid expansions increased preventative care utilization, decreased infant and child mortality. Suggests that newly eligible Medicaid recipients aren't on the "flat of the curve".
- What to do about the uninsured? More expansions for kids, outreach, expand to other demographic groups (i.e. adults), tax policy.

Critical issue is "bang for the buck"!

#### E. Medicare

- A lot of out-of-pocket expenses (premiums, copays, drugs, etc).
- Prospective payment system
- Managed care
- Competition/"Premium Support"

#### F. HI and Mobility/Job Lock

- Wage offsets can't fully reflect worker valuation of HI and some firms won't offer HI.
- Leads to job lock, where person won't switch to job with higher marginal product, because he doesn't want to lose health insurance. Evidence suggests 25% reduction in mobility associated with job lock.

### **IX. Redistribution**

#### A. Why redistribute?

- Redistribution as a public good.
- Redistribution as social insurance.
- Social welfare functions: utilitarian social welfare function is maximized when everyone has the same income, because of diminishing marginal utility.
- Might not want full redistribution though, because want incentives for people to "expand the pie" and because people have different tastes for income. Conservative criticism of redistribution says it's morally wrong. Commodity egalitarianism says all that matters is that the poor have some minimum standard of living.

#### B. Welfare Policy

- categorical vs. means-tested (i.e. welfare for single mothers vs. welfare for low income people)
- cash vs. in-kind (i.e. TANF cash transfers vs. food stamps, Medicaid, etc.)

#### C. Benefits and Costs of Welfare

- benefit is redistribution, as discussed above.
- "Leaky Bucket" due to administrative costs, work disincentives and DWL from tax-financing.

- “Iron Law of Welfare”: cannot necessarily improve incentives just by changing the implicit tax rate on welfare benefits.
- Ways to improve negative income tax:
  - Tagging mechanisms
  - In-kind welfare is a kind of tagging device: give something that’s valued more by the needy than by the non-needy.
  - Improve outside opportunities i.e. higher wages, child support enforcement.

## **X. Taxation**

### A. Incidence

- Incidence is about prices not quantities
- Statutory burdens are not real burdens
- Side of the market is irrelevant
- Inelastic factors bear taxes; elastic factors avoid taxes.
- Short-run and long-run elasticities may differ
- Scope of tax is important (i.e. taxing restaurants in Cambridge vs. taxing restaurants in Massachusetts).

### B. Efficiency

- efficiency is about distortions in quantities. DWL is the efficiency cost.
- DWL is the efficiency loss from trades that are not made that would have made both parties better off.
- DWL rises with demand and supply elasticities. If a factor is inelastic, there is no DWL, because there is no change in quantity.
- DWL rises with square of tax rate.
- Implications: 1) should have low rates on broad bases, 2) government should intertemporally smooth tax collection, 3) must consider pre-existing distortions.

### C. Tax-benefit linkages: Financing social insurance for workers doesn’t generate as big of a DWL as you might otherwise expect.

### D. Optimal Commodity Taxation

- Ramsey Rule:  $t^* = \lambda / \eta_d$ . Optimal tax is inversely proportional to elasticity of demand.
- Tradeoff: DWL rises with  $\eta_d$ , but DWL rises with  $t^2$

### E. Optimal Income Taxation

- trade-off between equity and efficiency. Goal is to raise certain amount of revenue, while maximizing social welfare.
- Laffer curve says that there is a  $t^*$  that maximizes revenue. Setting  $t > t^*$  will actually decrease revenue!
- At  $t^*$ , should find  $\frac{MU_i}{MR_i} = \lambda$ , for all individuals

### F. Additional Tax Topics: labor supply, savings, capital gains, tax bases, corporate taxation (next week), etc.