Course Recap

March 11, 2010

Today

- Evaluations
- A few final (exam) words
- Course recap

Final exam details

- Three levels of question difficulty
  - Almost everyone should get
  - Many people will get
  - Only a few people will get
- Format: $\sim$ 15 Mult-choice; 2-3 free-response
- Review Session: Friday 3/12 (tomorrow), 2-4pm here
- Extra OH: Sunday 3/14, 4-6pm, NH 1006

Econ 100a/b: Intermediate Microeconomic Theory

What is this course sequence about?

- 100a: rational choice under scarcity
  - Utility maximization, deriving demand from preferences
  - Profit maximization, deriving supply from costs
  - Applying framework to labor supply, choice over time, uncertainty
- 100b: Markets: behavior and welfare

Regulation: Good or Bad?

- Should government regulate economic activity?
- Politicians love to talk about this:
  - "I'm always for less regulation." –John McCain (*WSJ*, March 3, 2008)
  - "...I do believe that there is a role for oversight." –John McCain (same interview)
  - "A lot of the problems that are going on in our country now appear to have been related to lax regulation." –Texas State Senator Steve Ogden (March 21, 2009)
  - Ogden is a Republican
- This is an economic question

Course Objectives

- Understand basic theoretical framework we use to think about
  - If/how/when markets do & don't "work"
  - What happens when they don't & what should we do
- Develop analytic tools you can apply to specific economic questions
  - How does a tax affect behavior and welfare
  - Which goods should the govt. tax to generate revenue
  - What can/should we do to reduce greenhouse gas emissions?
  - What types of goods should the government be in the business of providing?

Structure

- Well functioning (competitive) markets
- Market failure
  - Monopoly (plus oligopoly, game theory)
  - Externalities (e.g. pollution)
  - Public goods
  - Imperfect/Asymmetric Information (covered in Econ 100C; insurance/paying for healthcare)

Well-functioning (Competitive) Markets

- Welfare measurement: Consumer Surplus approximates the consumers' gains-from-trade
- Use CS to evaluate the welfare impact of a policy
- Market demand: individual demand added horizontally
- Equilibrium in competitive markets: price equalizes $D(p)$ and $S(p)$.

Well-functioning (Competitive) Markets

- Market efficiency: equilibrium in competitive markets realizes all possible gains-from-trade, maximizes welfare

- Regulation: can lead to excess supply or demand
- Taxes create a wedge between consumer and producer prices
- Interference leads to unrealized gains-from-trade, DWL, inefficiency

Well-functioning (Competitive) Markets

What conditions are required for perfect competition?

- Firms are price takers, free-entry
- *Monopoly: when there are barriers to entry (cost structure, returns-to-scale, regulatory), sole producer can set price*
- Many firms, so that one firm's behavior has negligible impact on other
- *Oligopoly: multiple producers, and each takes into account how it's behavior affects others*
- No spillovers– all costs and benefits of market behavior are experienced by market participants
- *Externalities: producer or consumer behavior affects people other than buyers or sellers, market for cost/benefit is missing*
- No incentive to free-ride
- *Public goods: non-excludable, non-rival* $\Longrightarrow$ *incentive to free-ride*
- Perfect information *See econ 100c*

Without these we have market failure

Monopoly

- Profit-maximizing condition: $MR = MC$
- Perfect comp: firm is price-taker $\Longrightarrow$ horizontal demand $\Longrightarrow$ $P = MR$, so $P = MC$
- Monopoly: firm is industry $\Longrightarrow$ downward-sloping demand $\Longrightarrow P > MR = MC$
- Monopoly underproduces to keep price high, causes DWL
- Efficiency retained with non-uniform pricing (perfect price discrimination, two-part tariffs), but works by allowing monopolist to extract *all* consumer surplus

Oligopoly

- Quantity vs. price competition
- Simultaneous choice vs. leader/follower
- Cournot, Stackelberg quantity duopoly models
- Collusion can increase profits, but is unstable
- Cartel members have incentive to cheat/free-ride

Exchange

- Ch31 is not about market failure
- It's about general equilibrium
- Extends behavioral and welfare analysis to multiple markets w/ simultaneously determined outcomes
- Edgeworth box used to graphically illustrate powerful conclusions about welfare
- Competitive equilibrium is Pareto Optimal
- I.e. competitive markets "work"

Externalities

- Missing market for external effect
- No one takes ownership over external costs/benefits so production is not socially optimal
- Can correct externality with Pigouvian tax or by assigning property rights
- Each works by internalizing externality
- Common-pool resources
  - Rival, but not excludable
  - Overused (tragedy of the commons): individuals don't internalize effect of their use on others

Public Goods

- Efficient provision level: $\sum MRS = MC$ (MB is same as MRS when one good is 'money')
- Free-riding leads private market to underprovide
- Govt frequently provides
- How to know when providing is socially worthwhile?
- Use a revelation mechanism, e.g. Groves-Clarke tax to elicit individuals' true valuation
- Makes people pay the cost they impose on others