Econ 100B: Microeconomic Theory
Spring 2009
Class Information

- Web: http://econ.ucsb.edu/~grossman/Econ100BS09.html
- Office hours: Wednesday 2-3:30pm PM or by appointment, 3049 North Hall
- Required Materials:
  1. Intermediate Microeconomics by Hal Varian
  2. Workouts in Intermediate Economics by Ted Bergstrom and Hal Varian
  3. iClicker - available at Bookstore
- Waitlist: https://econ.ucsb.edu/cgi-bin/waitlist.cgi
Midterm (40%): Tuesday, May 5 in class
Final (50%): Tuesday, June 9 in CHEM 1179 (here)
2 Quizzes (along w/ section participation, 10%): in section during week of April 20-24, May 18-22
Recipe for Success

- Attend the class, and ask questions that will help you understand better.
- Practice all questions in the Workout Book.
- Attend and participate in section.
- Come to office hours whenever you have questions, and do not wait until a week before an exam.
<table>
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Regulation: Good or Bad?

- Should government regulate economic activity?
- Politicians love to talk about this:
  - “...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
Regulation: Good or Bad?

Clicker Vote

- A) We need more regulation
- B) We need less regulation
- C) Don’t know
- D) It’s complicated

So, how do economists think about this question?
Your goals for this course

- 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, for example
  - How did the repeal of financial regulation in the 90’s contribute to the current crisis?
  - Do executive compensation schemes need to be better regulated?
  - How will an increase in unemployment benefits affect the labor market?
Structure

- Well functioning (competitive) markets (roughly 1/3)
- Market failure (roughly 2/3)
  - Monopoly (plus oligopoly, gametheory)
  - Externalities (e.g. pollution, information externalities)
  - Public goods (how to use stimulus money, trust in the banking system)
  - Imperfect/Asymmetric Information (covered in Econ 100C; insurance/paying for healthcare)

Today and Thursday:
- Whirlwind recap of Econ 100A
- Uncertainty
Key questions from 100a

How do we think about rational choice?

- Utility function represent preferences
- Limited resources: budget imposes constraint
- Maximize utility subject to constraint.
Utility Functions

Example: Cobb-Douglas

- Utility function:
  \[ U(c_1, c_2) = c_1^\alpha c_2^{1-\alpha} \]

- Indifference curves:
Utility Functions

Example: perfect substitutes

- Utility function:
  \[ U(c_1, c_2) = c_1 + c_2 \]

- Indifference curves:
Utility Functions

Example: perfect complements

- Utility function:

\[ U(c_1, c_2) = \min(c_1, c_2) \]

- Indifference curves:
The budget constraint represents the frontier of consumption bundles affordable with income $m$.

Equation:

$$p_1 c_1 + p_2 c_2 = m$$

Graphically:
Rational Choice

- How does the consumer choose?
- The consumer chooses an affordable bundle to maximize utility:
  \[
  \max_{(c_1, c_2)} U(c_1, c_2)
  \]
  subject to
  \[
  p_1 c_1 + p_2 c_2 = m
  \]
- Solution: demand \( c_1 = D_1(p_1, p_2, m) \) and \( c_2 = D_2(p_1, p_2, m) \).
Choice: Graphical Illustration

The consumer will choose a bundle where

- Algebraically:

\[ MRS = \text{price-ratio} \implies \frac{MU_2}{MU_1} = \frac{p_2}{p_1} \]

- Graphically:
Recurring Theme

We use this approach repeatedly

- Individual choosing consumption bundle
- Firm choosing production bundle (minimizes cost)
- Individual choosing consumption over time
- Ahead: choosing consumption when the future is uncertain
Uncertainty about what?

- Behavior of others, future prices, wealth
- Will my house burn down? Earthquake? Cancer?
- Will the federal stimulus succeed? Auto Execs: will Congress bail us out?
Today and Thursday

- How do economists think about uncertainty?
  - Using the same set of tools: constrained optimization
  - Expected utility theory
- What are rational responses to uncertainty?
  - A portfolio of contingent consumption goods
  - Buying insurance
- Understand: what AIG was supposed to be doing and what didn’t it do?
States of Nature and Contingent Plans

- **States of Nature:**
  - “fire destroys house” (f) vs. “no fire” (nf)
  - Probability of: fire = $\pi_f$, no fire = $\pi_{nf}$; $\pi_f + \pi_{nf} = 1$
  - Fire causes loss of $\$L$

- **Contingent Plan:**
  - A state-contingent consumption plan: consumption level/bundle is different in each state (e.g. vacation only if no fire)
  - Contracts may be state-contingent (e.g. insurer pays only if there is a fire)
State-contingent budget-constraints
Preferences under uncertainty
Insurance
Diversification