

Introduction

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Lecture 1
Regular Section
Elements of Economics II
Fall 2011

Welcome

- My name is Glen Weyl
 - Call me Glen, Professor Weyl, any nickname
 - We respect ideas, not titles, aim to be my colleague!
 - If I mess up, correct me; if you disagree, jump in
- This is Elements of Economics II (ECON201)
 - Second quarter of intermediate micro, requires ECON 200
 - Also requires a year of calculus *which we will use*
- This course covers:
 - 1 The behavior of (competitive and monopolistic) firms
 - 2 Market equilibrium and externalities
 - 3 Economic policy (regulatory, competition and public)
- Main goal: give you a sense of being an economist
- This is the “Regular” section (not Turbo)
- During this first lecture I will:
 - Talk logistics, discuss the reading, outline of course

Goals

This course aims to do two things:

- 1 Give a flavor of what it is like to be an economist
 - What sort of questions do economist (have to) think about?
 - Policy questions economists are asked to advise on
 - Examples drawn from my experience of policy work
 - I'll ask you to reach your own conclusions about these
 - How do economists look at these questions distinctively?
 - Give you a flavor the the distinctive economic approach
 - You'll know by the end "what an economist would say"
 - How to employ economics to solve social problems?
 - If you ever work for government, they should rely on you
 - If you work in private sector, understand social implications
- 2 Teach the tools needed to become an effective economist
 - Mathematical and empirical techniques for future courses

Idiosyncrasies

This may be a bit different than previous courses:

- 1 I will cold call (starting today!)
 - This is not to embarrass you!
 - I want to know if people are understanding
 - And I want to give credit to those who are prepared

⇒ *DO READING BEFORE CLASS!*
- 2 It will force you to learn some concepts by exploration
 - Problem sets will test skills, but also teach concepts

⇒ Engage with, don't just solve, problem sets
- 3 Problem sets will be more open-ended (harder and 40%)
 - You will not be able to solve the whole thing
 - *Do not spend more than 4-8 hours*
- 4 Scores will be lower (but will be curved)
⇒ *Don't freak out!*
- 5 I want you to come to office hours (and so do the TAs)

Regular v. turbo

This course has two sections, both on Tuesday/Thursday:

- 1 This “Turbo” section meets from 9-10:20am
- 2 “Regular” section meets after at 10:30-11:50am

Lectures similar (so attend other if you miss) but Regular...

- 1 Has less, easier reading, covers basics in detail
- 2 Is less mathematical and focus more on core
 - My Turbo not that mathematical; Gay’s Monday more
- 3 Mostly relies on skills you are used to in econ
- 4 Is geared towards preparation for courses
- 5 Has essentially the same evaluations, curve
- 6 Will likely be larger = less personal attention
- 7 I will be unlikely to take research assistants from Regular
 - ⇒ Try shopping all three sections, decide preference

From here on out, I will assume you are all Regular students

Some practical information

- The course website is on chalk
 - Most also on <http://www.glenweyl.com/teaching.htm>
- Required readings and additional references in syllabus
 - Complete all readings *before coming to class*
 - Extra enrichment readings (take a look!) on list
- Text: *Intermediate Microeconomics* by Hal Varian, 8th Ed.
- All other readings will be on website
 - Some references will be on reserve, enrichment in library
- Reach me at weyl@uchicago.edu, (773) 702-4862
 - My office ours are Wednesday 4-6pm, Rosenwald 205B
 - If you can't make them, we'll find another time
- Section: Philipp Tillmann (ptillmann@uchicago.edu)
 - Section is Monday, 4-5pm, Stuart 101
 - Office hours are Thursday 11:50-1, Stuart Cafeteria
 - Will cover mostly math and problem sets

Requirements and grading

- Six problem sets (40%), a midterm (20%) and a final (30%)
 - Midterm 4:30-6 on Tuesday, November 1 (SS122)
 - YOU MUST MAKE MIDTERM SO TELL US NOW IF NOT
 - Final will be scheduled by administration, 3 hours
 - Exams are open everything, but no two-way communication
 - Bring calculator or Mathematica for computations
 - All problem sets due at the beginning of lecture
 - Up on chalk, first due a week from Thursday
 - *NO EXTENSIONS WILL BE GRANTED*
 - Problems set will be long and hard
 - You are not expected to complete everything
 - Everything will be curved
- 10% participation (but we mean it!): section and cold calls
 - ⇒ Please show up to both lecture and section
 - If you cannot come to either, you must justify this

Friedman's perspective on medical licensure

Launch the class by showing power of economic analysis

- *Capitalism and Freedom* first opened my eyes
- The assigned chapter is economic analysis at its best:
 - 1 Obvious conventional wisdom: doctors should be licensed
 - 2 Look at it from an economic perspective
 - 3 Makes (very?) persuasive argument to the opposite
 - 4 Skillfully and informally uses skills we will learn

⇒ This is the type of reasoning you can learn here

What is Friedman's basic argument?

- Medical licensure serves primarily to raise wages
- Actually lowers the quality of medical care
- Almost all benefits of licensure served by certification
- Medicine should be open to free practice
- Any other system will become too manipulated politically

Argument in detail

How does Friedman make his argument?

- 1 Reducing *quantity* of doctors benefits current; why?
 - When there aren't many doctors, price is bid up
 - But harms more those wanting to enter, consuming
 - Wedge between willingness-to-pay and accept
 - Incentive for, potential harm from licensure
 - Common strategy in economics: tariffs, farm subsidies
- 2 If standard story true, who should we see lobbying?
 - If necessary to protect consumers, consumer groups
 - Product safety regulations: industry often opposed
 - But in practice system primarily defended by producers
 - Always a dangerous sign if industry supports regulation
 - Not openly ill-intentioned, but easy self-deception
 - Veneration of technical efficiency (and hazing)

Friedman's argument continued...

- ④ Standard: requirements should be competence; but?
 - But many we observe irrelevant
 - Think about technical physical skills of surgeon
 - Hijack other ethical views: separate areas of policy to avoid
 - Very common political maneuver: farm subsidies
- ⑤ Producers more concentrated; why important?
 - Thus consumers have little incentive to prevent abuse
 - General principle of protecting consumers
 - Need not be pro-market, often anti-
 - Classic example is regulation of finance
- ⑥ Association prevents competition, innovation
 - Pay has to be equalized to prevent competition
 - Similarly, poorly performing doctors defended
 - This is one of the most insidious effects of teacher's unions
 - Innovation threatens value of doctors

Lessons for policy

What does Friedman advocate?

- Certify doctors or other solution to IP problem
 - There is a problem of rewarding certification
 - Public good: once available, everyone benefits
 - Government certification is a solution
 - Helping protect secrets may also help do this
- Certification flexible enough to discipline by entry
 - Protection in case certification is captured by industry
 - Also provides incentive to discipline the board

Applications today?

- 1 Enormous cost of medical system, role of licensure
- 2 Role of AMA in preventing technology, cost reduction
 - Anti-depression drug study and automated medicine
- 3 Personal stitches story

What does this have to do with our class?

For this class: Friedman's arguments use tools you will learn

- 1 Long v. short-term responses of medicine (Lecture 4)
- 2 Unequal salaries under competition (Lecture 5)
- 3 Targeting solutions to externalities (Lecture 7)
- 4 Inferring information/preference from actions (Lecture 8)
- 5 Monopoly incentives and distortions (Lecture 9)
- 6 Price discrimination and group practice (Lecture 10)
- 7 Capture of regulators by the regulated (Lecture 12)
- 8 IP to reward certification (Lecture 13)
- 9 Incentives of certifier to provide quality (Lecture 14)
- 10 Danger of communication among competitors (Lecture 15)
- 11 Protecting consumers as priority (Lecture 16)
- 12 Collective action problems (Lecture 17)

Is this science?

Exciting, powerful, interesting, but science?

- No experiments, predictions, etc.
 - That's the view of science from middle school
 - But is it really right, even for hardest sciences?
 - Consider Darwin's evolution
 - Essentially has never made a falsifiable prediction
 - *Never* been experimentally tested but...
 - Powerful framework/language for organizing biology
 - Typical analysis runs much like Friedman
 - Explain some observed fact: camouflage or lobbying
 - Prescribe some action: limit antibiotics or licensure
 - Hardest theory (Newton's laws) do not predict on their own
- ⇒ What scientific theories really do is provide a language
- This class will be to teach you to speak economics

The rationality postulate and the economic method

The Darwinian theory talks of fixed environment

- Adaptation to maximize fixed reproduction with limits

Basic elements of economics are the same

- 1 Utility/preferences = reproduction, constraints=environment
- 2 Preferences are over basic objects and don't vary much
 - From psychology, sociology, biology, but not economics
- 3 All constraints on choices interpreted as prices
- 4 Technology, markets and information help determine these
 - This is where laws of hard sciences enter
- 5 Economists focus on behavior of market aggregates

Not the only approach, nor best, but I hope you'll find it

- 1 A useful discipline on your thinking
- 2 Provides fruitful language in analyzing many questions
- 3 Applicable in apparently non-economic settings

Overview

You'll learn to use economics to answer:

- How much debt should companies take on?
- When does it make sense to have “special” tax breaks?
- How does/should prestige correct market failures?
- Who should be favored in auctions to maximize revenue?
- When should companies give discounts for buying more?
- How progressive should the tax system be?
- How generous should unemployment benefits be?
- What is the right mix of R&D subsidies and IP?
- When should internet companies lose money early on?
- Which mergers should be approved?
- When is eminent domain necessary?
- Should we be harsher on cartels than other monopolists?
- When is voting a good way to make a collective decision?

To do this, you'll need to master a range of areas...

Firms

1 Today

2 Theory of the Firm

- What is a corporation and what is its legal basis?
- How do we think of companies as behaving?
- What should companies try to achieve?
- How do internal conflicts inhibit profit maximization?
- How does the financial structure of a company help?
- What activities do/should go on inside companies?

3 Cost

- How do we describe technologies firms use to produce?
- How do we graphically represent production and costs?
- Classification of costs (fixed, variable, sunk etc.)
- Cost curves and their relationship to one another
- Assumptions about and measurement of cost curves

Supply

4 Firm Supply and Duration

- How much will a competitive firm supply?
- How do profits relate to costs?
- How do firms respond to temporary changes?
- How do firms respond to long-lasting changes in demand?
- How are these responses related to one another?
- Investment and expected duration of production

5 Industry Supply and Rents

- Relating industry supply from individual firms
- Decomposing supply into entry and expansion
- When can competitive firms make profits?
- Role of exceptional technology and talent in profits
- Empirical regularities about distributions of size, talent

Equilibrium and externalities

6 Market equilibrium

- Graphical representation of simple general equilibrium
- Why does international trade promote efficiency?
- The social efficiency of the price system
- When does the price system out-perform alternatives?

7 Payment in Accordance with Product

- Externalities and Pigou's principle
- Equivalent approaches: cap and trade, damages
- Coase's "Theorem" and information in externalities

8 Assessing Externalities

- Objective calculations, cost/benefit analysis and science
- Statistical value of life and evaluation of carbon externalities
- Contingent valuation and survey methods
- Problems with surveys and mechanisms for elicitation

Monopoly

- 9 Basic Monopoly Theory
 - How does a monopolist maximize profits
 - Optimal monopoly pricing and elasticity
 - Deadweight loss from monopoly in theory and data
 - Tax pass-through under monopoly
- 10 Price Discrimination
 - Perfect price discrimination, information and optimality
 - Second-degree price discrimination and quantity discounts
 - Third-degree price discrimination and medications
 - Price discrimination and tax policy
- 14 Quality
 - What quality product does a monopolist supply?
 - Marginal v. average valuation: the Spence distortion
 - Hotelling's spatial model of product design
 - Applications to politics and the Median Voter Theorem

Monopoly policy

12 Regulation

- Natural monopoly
- Average v. marginal cost regulation
- Information problems with regulation
- Monopolistic competition and free entry
- Average cost pricing and free entry
- Selection and regulation

13 Intellectual Property

- Monopoly profits as an incentive
- What do monopoly profits incentivize?
- Dynamics of competition
- Intellectual property as a policy tool
- Optimal intellectual property
- Alternative to intellectual property

Competition and policy

15 Oligopoly

- How should firms behave in oligopoly?
- Cournot's model of oligopoly
- The Edgeworth-Bertrand critique of Cournot
- von Stackelberg's sequential model of oligopoly
- Broader models: conjectural variations
- Stigler's theory of oligopoly

16 Competition Policy

- Competition and prices
- The effect of increased competition
- Cournot's theorem and perfect competition
- General lessons about competition
- Competition law and merger/cartel control

Redistribution and public goods

11 Redistribution

- Some facts about domestic and global inequality
- The “Veil of Ignorance” and the case for redistribution
- Utilitarianism as a framework for evaluating redistribution
- A refresher on risk aversion and welfare
- How progressive should taxation be?
- Empirical approaches to income tax policy

17 Public Goods

- What happens with more than one monopolist?
- How about many monopolists?
- Contributions to public projects
- Unanimity as a potential solution
- Problems with unanimity
- Impossibility of private provision of public goods