Econ 1101
Spring 2013
Week 1

Section 038

1/23/2013

Welcome!

- Instructor: **Radek Paluszynski**
- Second-year PhD student in the Department of Economics – from Poland / US
- E-mail: **palu0041 @ umn.edu**
- Website: www.econ.umn.edu/~palu0041/
- Office: Hanson Hall 3-155
- Office Hours: Wednesday 3.00-5.00pm
  - Tentative!

Agenda for today (1st part)

- Introduction to the course (administrative stuff, general overview of what we do in Economics)
  - This will be sort of sketchy. You are required to read the syllabus!
- Textbook Economics
- Models

Agenda for today (2nd part)

- Auctions – a „warm-up" to Supply and Demand

- Wholesale Electricity Auctions in the United Kingdom

E-mail

- I will send you e-mails from time to time. You should have already received the first one.

- In case you haven't, check your UMN junk mail!

- This is my preferred way of communicating with you (outside our classes or office hours)

- Please start the subject with [Econ-1101]

Office hours

- Questions regarding lecture contents, the class in general, etc.

- Last resort help for homeworks

- Important note: the Dept of Economics locks up at 4.30pm every day.

- In case you're planning to arrive between 4.30 and 5.00, ring my office phone: 612 624 9357 so that I can let you in ☺

Lectures

- Do:
  - Ask questions if you are confused
  - Point out any mistakes I may have made
- Don't:
  - Chat with your neighbors
  - Talk on the phone
  - Play loud music, make other noises…
- OK:
  - Using your computer/tablet to take notes or follow along with the slides or read newspapers
  - Coming in or leaving quietly at any point
  - Sleeping (although there are better places to do that)

Recitations

- This class has fifteen recitation sections.

- Your TA – Sergio – is really awesome.

- In the recitation you will go over important material, review stuff, have debates (more on this later), and make your Econ 1101 experience more personal.

- Think of your TA and I as a team to help you go through this class and make it enjoyable for you.

Exams

You need to be able to take these exams. This is posted well in advance so you can make any adjustments to your schedule. These cannot be moved because they are common exams.

- Midterm 1: Monday, Feb. 25, 7:30-8:30pm
- Midterm 2: Monday, Apr. 8, 7:30-8:30pm
- Final: Tuesday, May 14, 6:30-8:30pm

Makeups

Things do come up, so with a documented reason, you can take a makeup exam:

- Makeup Midterm 1: Wed. Feb. 27, 4:00pm
- Makeup Midterm 2: Wed. Apr 10, 4:00pm
- Makeup Final: Friday, May 17 (tentative)

Note: Makeup is different from the original midterm.

Additional note on Exams

- If you can document a conflict with a Monday midterm, you can take the Wednesday makeup.

- E-mail: headgrader@gmail.com

- If you can **document** a conflict with both the regular time and the makeup (if you are sick that week), we will **reweigh your other midterm and the final,** there is no **makeup makeup!**

- If you miss both regular midterms and both makeup midterms (if you go 0 for 4), you need to take an incomplete or drop the class.

Course information

- Course information, large lecture handouts, etc. can be found on Moodle (moodle2.umn.edu)

- READ THE SYLLABUS!!!!!

- The entire Econ 1101 operation consist of multiple lectures and instructors all doing the exact same thing, so the syllabus will be followed to the letter. Make sure you read it carefully!

Course info, cont'd

- This course is designed to be flexible – but in a specific way.

- For example: Homework is due online Friday evenings, 11:45 pm C.S.T.
  - Late homework cannot be accepted, even by a few seconds.
  - Flexibility: There are 11 homework assignments, we will drop your lowest 2 (to accommodate illness, sudden internet disruptions, a dog that ate your computer, etc.)

How this class will work

- Lecture is the main deal.
  - Text is a complement, not a substitute.
  - At the beginning of the week, the preliminary lecture slides for that week will be posted at:

    www.econ.umn.edu/~palu0041

  - The annotated slides will be posted after class.
- Reading Assignments from the textbook
- Outside Readings (7) on Moodle

How this class will work, cont'd

- Recitation
  - Small group activities
  - Ask questions!!!

- Weekly Forum (on Moodle)
  - I will aim at answering a few times a week.
  - Check the forum if you think your question might be common.
  - You can answer another student's questions.

- Homework
  - Cards are stacked in your favor (3 tries...)
  - But still have to make a good effort in order to get something close to the full credit (20% of course grade).

How this class will work, cont'd

- Exams
  - Multiple choice questions
  - Look at old midterms on Moodle.
  - There will be more or less step by step solutions for these old midterms.

Aplia

- Homework delivered online at aplia.com
- You need to pay for an account ☹
  - Bookstore bundle: (Aplia, hard copy text+online text). Don't lose the code!
  - Purchase only Aplia (get online text) at http://login.cengagebrain.com/

- Follow instructions for picking your Aplia section (link at the top of the syllabus)
- Course key that you will need (you can also find this on Moodle): **PP99-QCHE-PVSQ**

Aplia, cont'd

- REGISTER WITH YOUR UMN EMAIL!!!!!!!!!

- Demonstration of Aplia in recitation. There is also a "free points" assignment to help you with using Aplia.

- There is a grace period until: 2/10 during which you can start using Aplia without an access code.

What is Economics?

I like to think of Economics as the study of human choice. The choices of individuals to best allocate **scarce** resources.
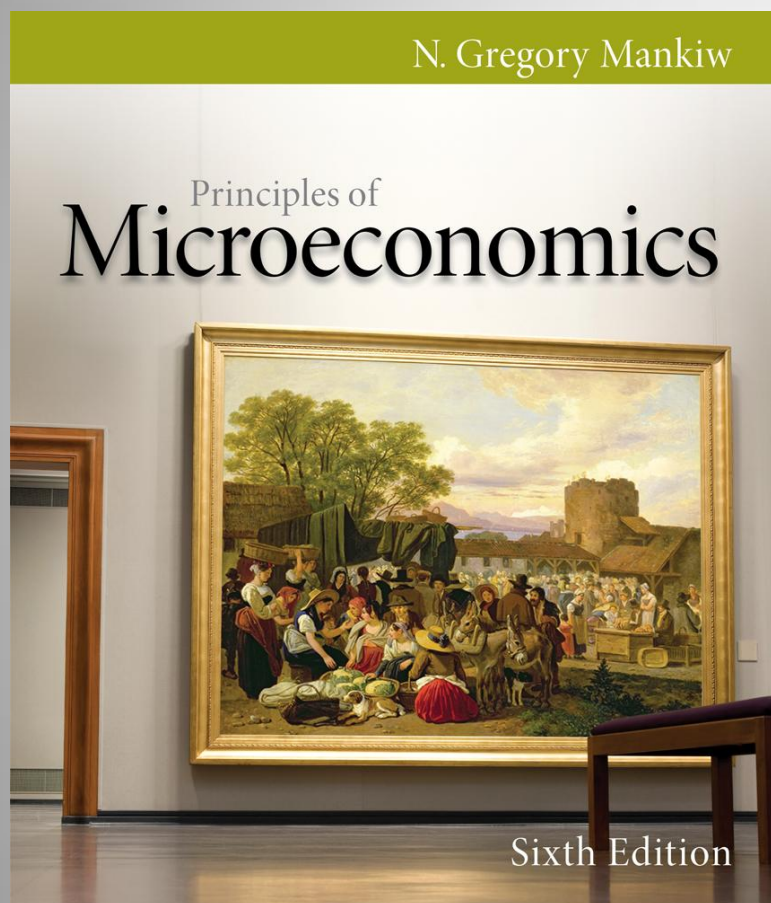
- Think of scarcity as unlimited wants & limited resources

Why do consumers make the decisions that they do? How do they respond to incentives?

Why do firms make the decisions that they do? How do they respond to incentives?
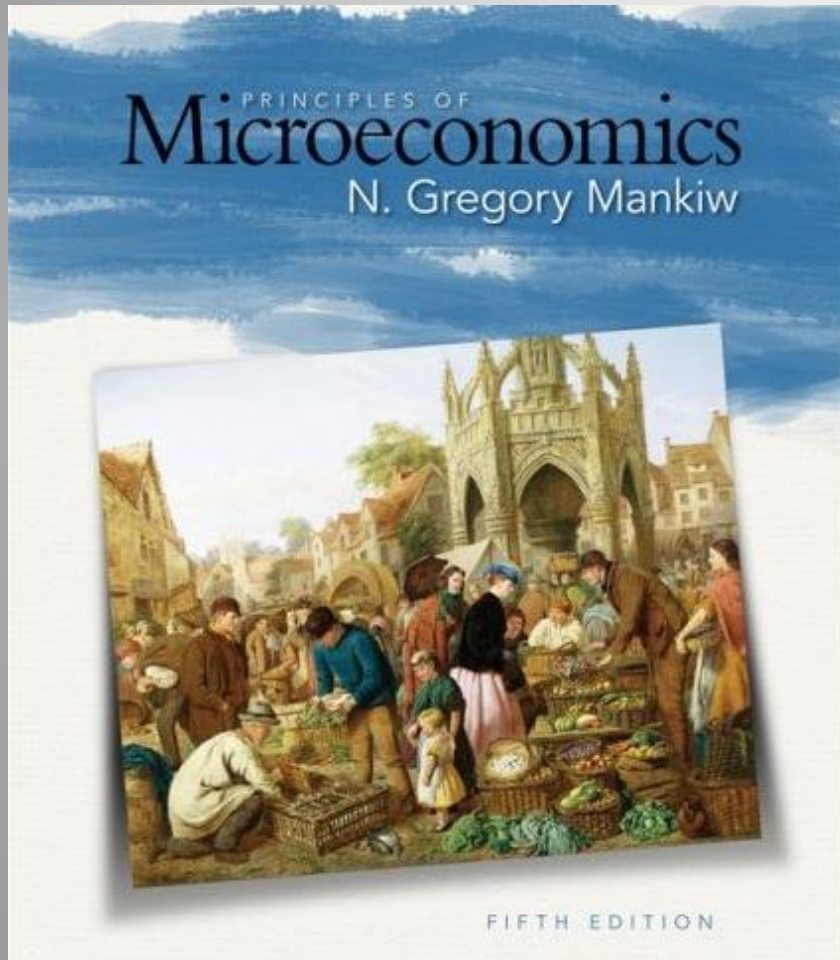
How does it all work together?

Textbook Economics (1)

N. Gregory Mankiw

Principles of
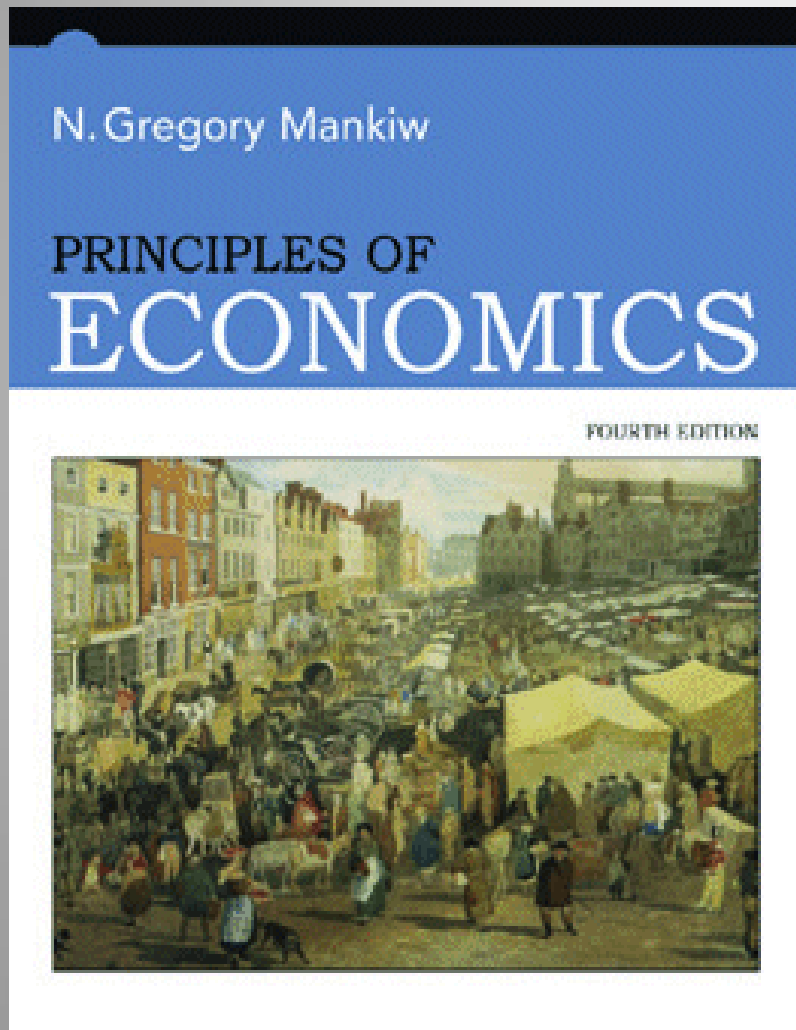Microeconomics

Sixth Edition

6th Edition (2011)

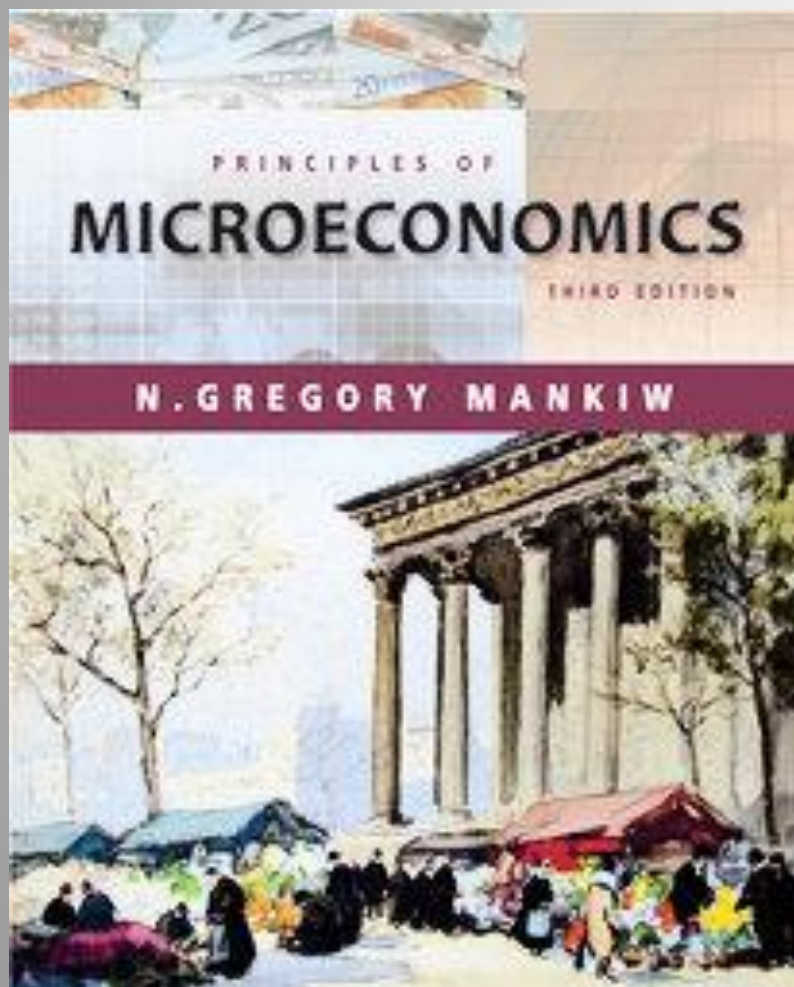- Amazon new: $171.94

Textbook Economics (2)

- 5th Edition (2009)
- List $175.02
- Amazon new: $70.33
- Used: $19.90

Textbook Economics (3)

- 4th Edition (2007)
- New: $111 (In 2007)
- Used: $18

Textbook Economics (4)

- 3rd Edition (2003)
- $2.50 (+$3 S&H) at Abebooks.com
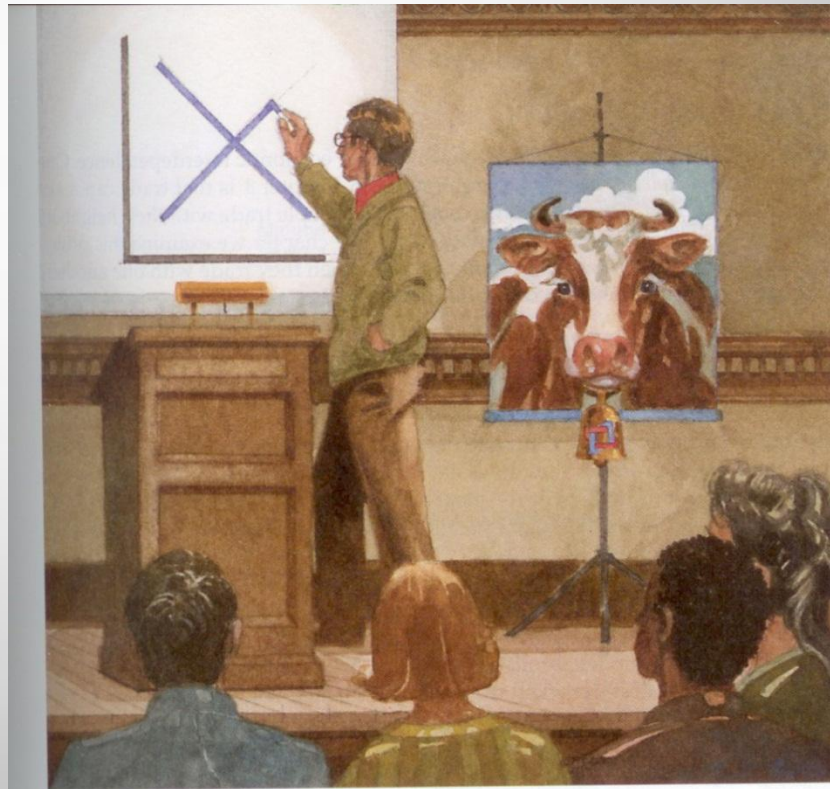
Textbook Economics, cont'd

So in what way are the new editions better? Why can't you just buy a third, fourth, or fifth edition instead of the sixth edition?

- Suggestions?

Textbook Economics, cont'd

The pictures! (The text is the same)

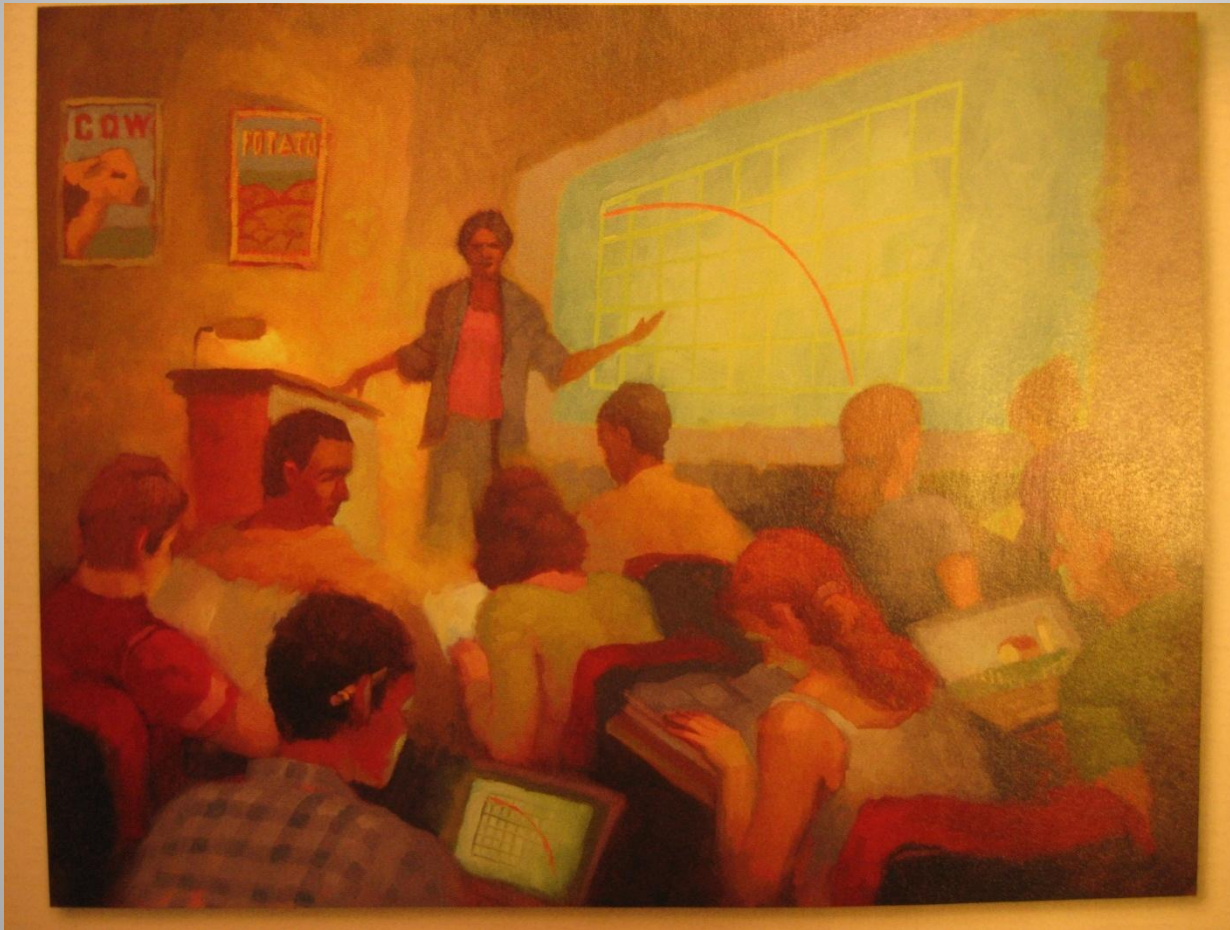- 3rd Edition: Boring Old Male Professor with Whiteboard

- 4th Edition: Female Professor with Powerpoint!

Note: the cow is still there

- 5th Edition: Cool Female Professor
- Plus Students Get Laptops!

Note: the cow still there

- 6th Edition: not much changed, except students are now wearing very nerdy shirts

Note: the cow still there

Textbook Economics, cont'd

Lesson 1. Textbooks are durable goods

- Like a car (not like a cheesecake)

- The new edition comes out, it's sold to everybody in the first semester.

- Students sell them back to the bookstore and after the first semester used books drive down new books sales.

- Unlike a car, consumer needs a book for a short time.

Textbook Economics, cont'd

What can a book publisher do then?
Answer: Kill off the used market.

Strategy 1: New edition (every 3 years) Most importantly, change page and problem numbers.

Strategy 2: Bundle content, like online homework, so that payment is mandatory in consequence.

Strategy 3: Mutilate books when the opportunity arises. Like for you.   (For our bundle: the publisher incurred higher costs to mutilate our hard copies...and kill off the resale potential)

Textbook Economics, cont'd

Lesson 2: Demand for textbooks is i**nelastic** (relatively insensitive to price).

So there is an incentive for firms to set a high price.

- For students, price of textbook a small part of the much larger cost of being in college . So students (or parents) pay the high prices so as not to mess up the investment.

Incentive Problem for Professors/Instructors:

- Don't pay for the books themselves. Like doctors prescribing medicine not ordering generic versions of drugs.

Textbook Economics, cont'd

- Our analysis of textbooks sort of gives us an idea of how economists like to look at the world.

- How do economists solve problems?
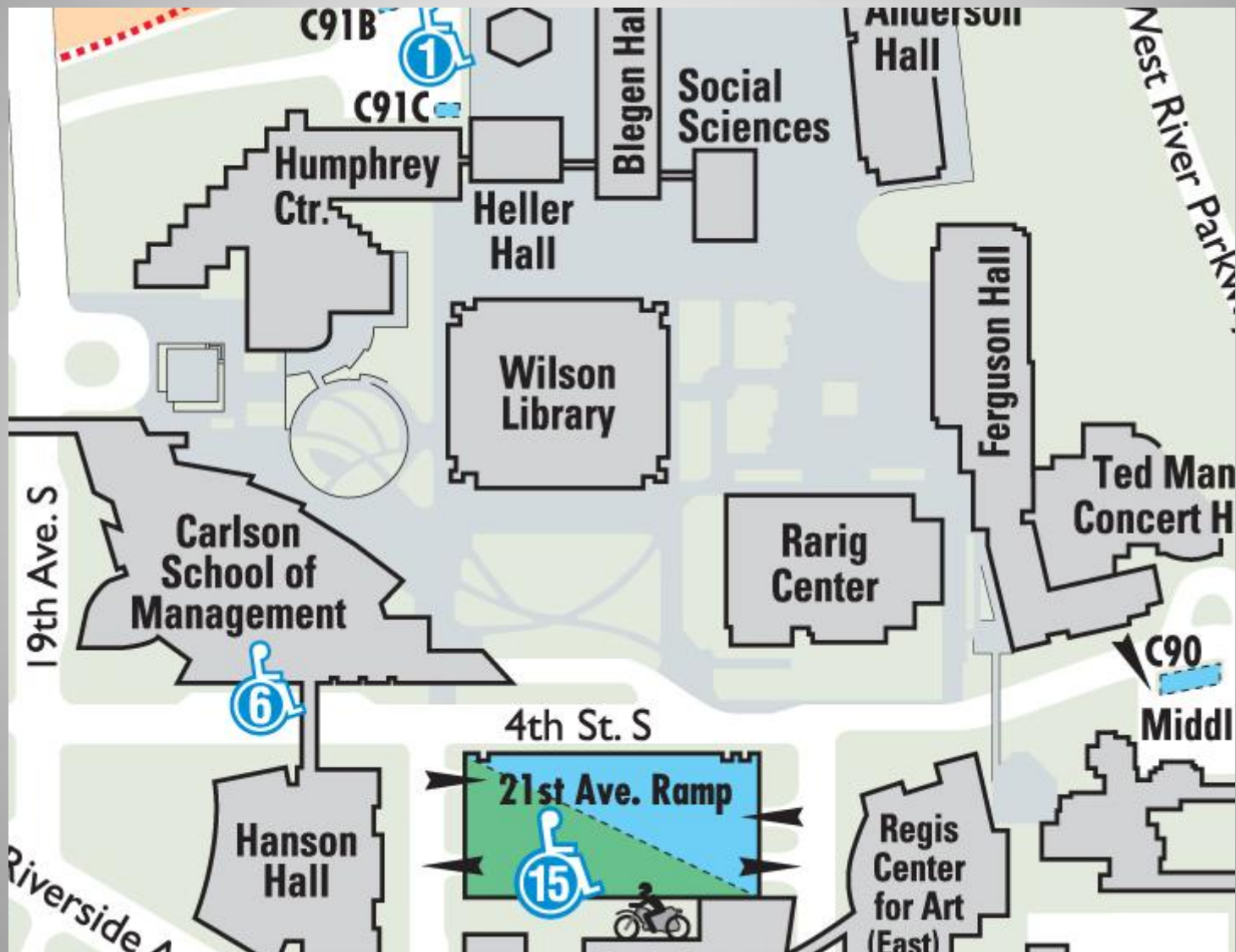
- They use models!

Economic Models

In a lot of ways, Economic models can be thought of as a map.

If I were to explain to you how to get to Hanson Hall (for my office hours), I could:

- Show you a precise map:

- Or show you a less detailed map:

- Or even draw you one!

Economics Models, cont'd

- All of those maps were trying to explain the same thing, but some with more detail than others.

- In the same way, when we study human behavior and choice, there are way too many variables to account for everything.

Economics Models, cont'd

- Thus, as economists, we simplify things by making models that perhaps are not exactly like real life, but that will still tell us something about the world and how it works.

- For example, we make assumptions like there are infinitely many producers, or that goods are infinitely divisible.

- In the end, we still get something valuable – much like the maps. Even the one I drew will give you an idea of where you are/going… I think.

How about a 15-minute break now?

- Some announcements in the meantime:
  - HW 1 due 11:45 pm CST on Aplia next Friday (Feb 1)!
  - Readings for this week available on Moodle. Chapters 1 and 2 in the text and Reading 1 that we will be covering today.
  - In-class experiment next week:
    - Last part of the class (after lecture)
    - Bring your computers (or know where to find a computer lab on campus)
    - Go through the pre-experiment homework on Aplia beforehand!

Auctions

- An important form of market exchange (treasury bills, cell phone spectra, etc.)
- And relatively easy to see how they work (so a good warm up)

- Let's discuss a few types of auctions and illustrate them with experiments.

Auctions, cont'd

- Auctions can be either **single-sided** or **double-sided**
  - Who can guess what the differences may be?

Auctions, cont'd

- Single- and double-sided refer to the party that bids.

- In a single-sided auction, only buyers or only sellers bid.

- In a double-sided auction, both are bidding. We will see more of this next week when we do an experimental auction on Aplia.

Auctions, cont'd

- Auctions can be:
  - Sealed-bid
  - Open outcry

Auctions, cont'd

Now we will do a few experiments. This will hopefully:

- Illustrate that economists sometimes do research through experiments.

- get you ready for the experiments next week.

- get you ready for the way things work in "Econland" (the economy we will create for this course).

Auctions, cont'd

Experiment I: single-sided, sellers submit bids, sealed bid, pay as bid.

- A buyer needs a book
  - There are three sellers, i=1,2,3
  - The buyer has a **reservation price** (won't pay any more than this)
  - $w(i)$ is the wholesale price of seller i
  - the seller i submits price $p(i)$ (sealed bid)
  - sale goes to the lowest bidder at this bid (if below the reservation price)
  - If bidder i gets to sell, then the profit is:

$$p(i) - w(i)$$

Auctions, cont'd

A word about currency:

- This is a global perspectives class, so the currency is Euro.

- Right now, the exchange rate is $1 for every €0.75 (or € 1 for every $1.33)

Auctions, cont'd

Auction outcome:

- Buyer reservation price is €80
- Seller costs:

$$w_1 = € \ 60 \quad w_2 = € \ 60 \quad w_3 = € \ 60$$

- Bids:

$$p(1) = € \ 69 \quad p(2) = € \ 67 \quad p(3) = € \ 75$$

Winner is Bidder __2__?

Selling price is winner's bid of ____67____?

Profit to Bidder _2_ is ____7____?

Profit to buyer: 13

Auctions, cont'd

We just saw from above that the sellers all faced a tradeoff: What are the costs and benefits of submitting a low bid?

Auctions, cont'd

Takeaway from Experiment 1:

• There is a tradeoff when submitting a low bid.

• The good thing about a low bid: it increases the chance of winning.

• The bad thing about a low bid: you don't make as much money when you win.

Auctions, cont'd

Experiment 2: (Adding some competition)

Let's set up a situation where bidders know each others' costs:

Costs $w_1 = w_2 = w_3 =$ € 75

(i) Sale price with three bidders?

(ii) Sale price with one bidder?

Auctions, cont'd

Takeaway from Experiment 2:

If bidders know each other's cost, are not working together, and have the same cost, then the selling price will usually be close to the cost. **Competition works!**

If there is one bidder, we have a monopoly situation and **the price will come out high**. The price will probably be pretty close to the buyer's reservation price.

Auctions, cont'd

Experiment 3: (adding collusion)

- Set up similar to Ex. 2 with three bidders.

- Are there three people in the class who are friends? (Or maybe would like to be friends....)

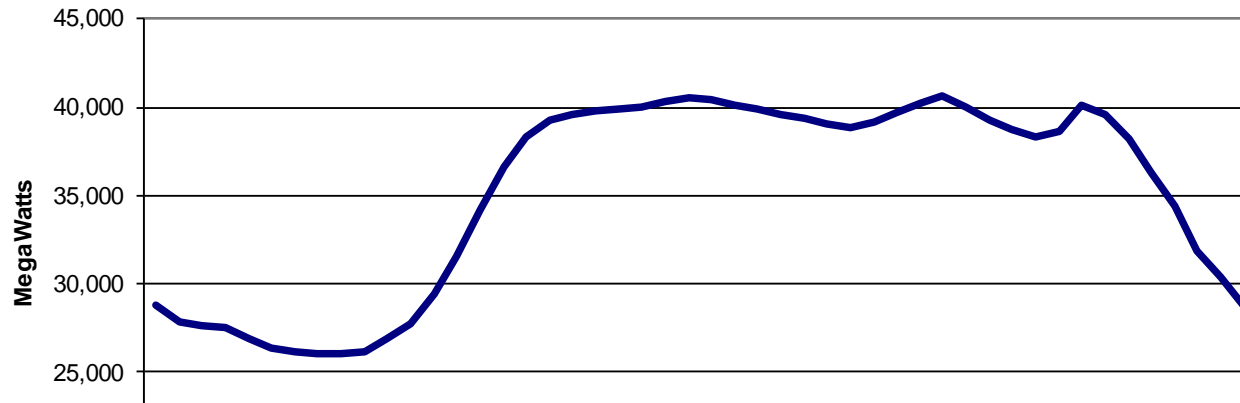 - What would your bid be for selling your textbook?

Auctions, cont'd

Takeaway from Experiment 3:

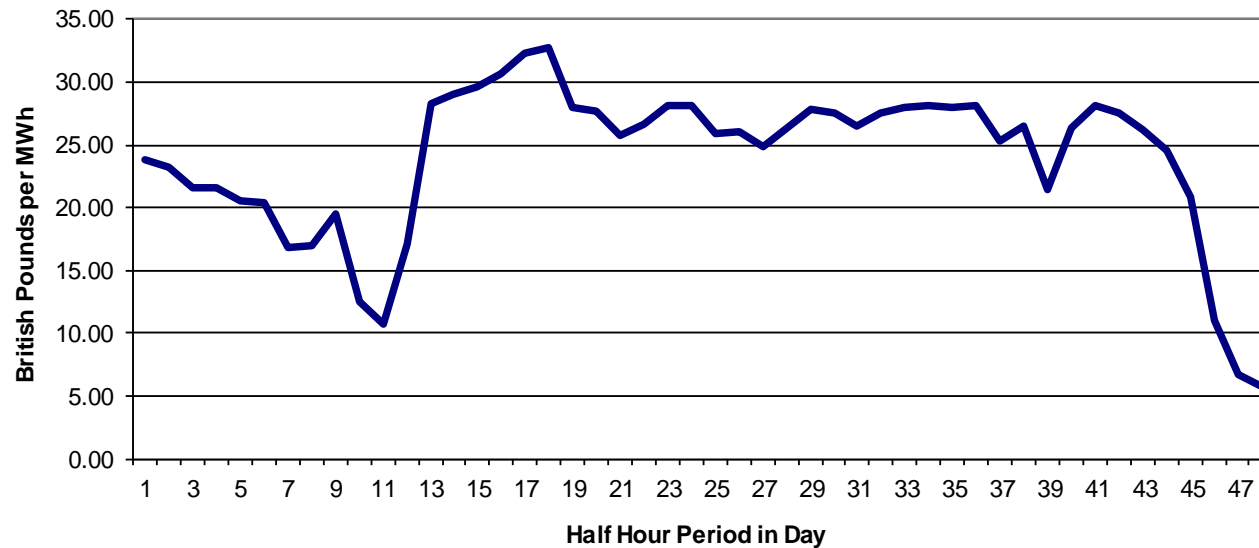Even with multiple firms we can get something close to monopoly prices if firms collude.

Collusion to fix prices is illegal in the US and in many other countries!

Electricity Auction in the UK

Electricity Demand in Great Britain by Time of Day (Sept 3, 2009)

System Sell Price by Time of Day (Sept 3, 2009)

Electricity Auction, cont'd

There is an "Independent System Operator":

1. Receives offers to sell from Suppliers
   - "I will sell 10 Megawatt hours for £25 from 11:00-11:30…"
2. Sees forecasts of demand
3. Picks Price, Quantity and Who gets to sell
   - ("P, Q, and Who")

Rules: Sort bids by price, set price equal to last needed to meet the demand. This is a **uniform price auction:**

- Contrast with "pay as bid auction"

Electricity Auction, cont'd

Seller Name	Sell Price for 1 MWh (£ per MWh)
S1	30
S2	5
S3	50
S4	10
S5	20
S6	25
S7	5
S8	10
S9	50
S10	15

- Buyer submits quantity demanded:

  Q^d = 6 MWh

- Sellers submit bids

Electricity Auction, cont'd

- First task of ISO (Independent System Operator): Sort Bids (lowest to highest)

Electricity Auction, cont'd

Seller Name	Sell Price for 1 MWh (£ per MWh)
S1	30
S2	5
S3	50
S4	10
S5	20
S6	25
S7	5
S8	10
S9	50
S10	15

Rank	Seller Name	Sell Price	In?
1	S2	5	X
2	S7	5	X
3	S4	10	X
4	S8	10	X
5	S10	15	X
6	S5	20	X
7	S6	25	
8	S1	30	
9	S3	50	
10	S9	50	

Electricity Auction, cont'd

Seller Name	Sell Price for 1 MWh (£ per MWh)
S1	30
S2	5
S3	50
S4	10
S5	20
S6	25
S7	5
S8	10
S9	50
S10	15

Rank	Seller Name	Sell Price	In?
1	S2	5	X
2	S7	5	X
3	S4	10	X
4	S8	10	X
5	S10	15	X
6	S5	20	X
7	S6	25	
8	S1	30	
9	S3	50	
10	S9	50	

Electricity Auction, cont'd

Rank	Seller Name	Sell Price	In?
1	S2	5	X
2	S7	5	X
3	S4	10	X
4	S8	10	X
5	S10	15	X
6	S5	20	X
7	S6	25	
8	S1	30	
9	S3	50	
10	S9	50	

Demand line

supply curve

£

Q

Electricity Auction, cont'd