Lecture 10(i) Announcements

Midterm Mon Nov 12, 7pm-8pm
If conflict, register by Mon, (Nov 5), 4pm to avoid **late registration penalty**. Email head grader, headgrader@gmail.com

- Question and Answer Sessions
- Wed Nov 7: 4-5:30: Anderson 310
- Wed Nov 7, 7:30-9: Anderson 210
- Thur Nov 8 3:30-5 : Anderson 210

Don't forget to vote for the carbon policy platforms at Canvas week 10 to get bonus points.

- No lecture on Friday or Monday of exam
- Office Hours this week (Hanson 4-135)
  - Wed: 1:30-3:30
  - Fri: 9:30-10:30

  - Don't forget about TA off. hrs.
- Coverage: Lec 6(i)-Lec 10(ii)
  - Look at practice midterms
  - 3 Worksheets at Canvas.
  - Reading 4, Reading 5

- Don't Forget to Vote!
- For 4 policies at Canvas
- (get bonus points)
- (Deadline same as HW 8)

- Lecture

1. Review finding profit on the graph.

2. More discussion of case of perfectly elastic long-run supply.

3. Entry and Exit

4. Apply this to looking at impact of China on consumer goods industries in the U.S. (Reading 6)
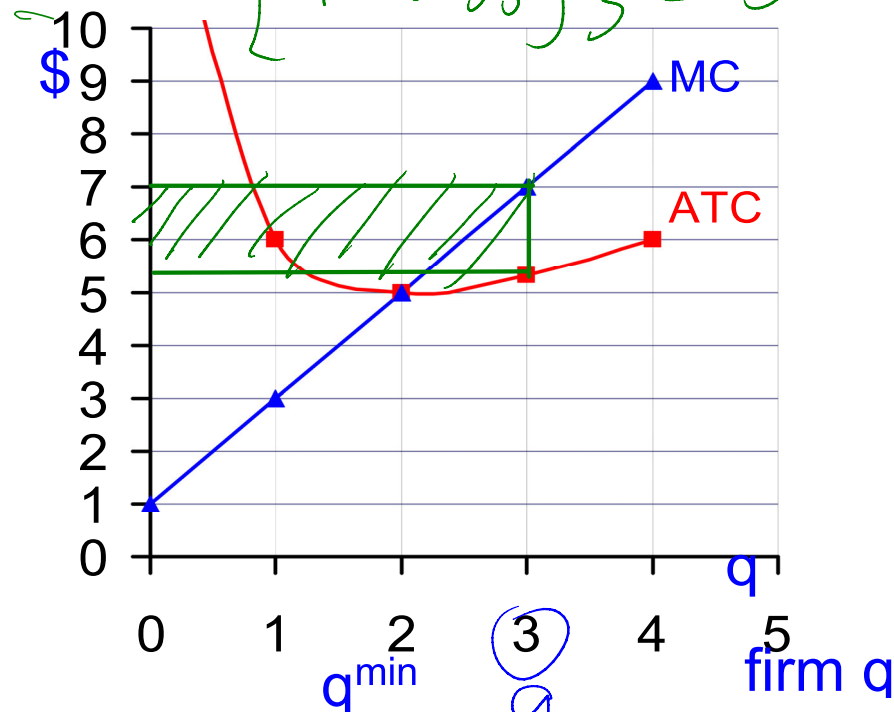
For future reference,

some points on ATC...

q	ATC
1	6
1.5	5.17
2	5
3	5.33
4	6

For midterm (and practice problem)
I will either give a table like this.
Or you find this information on the
graph.

Cost Structure
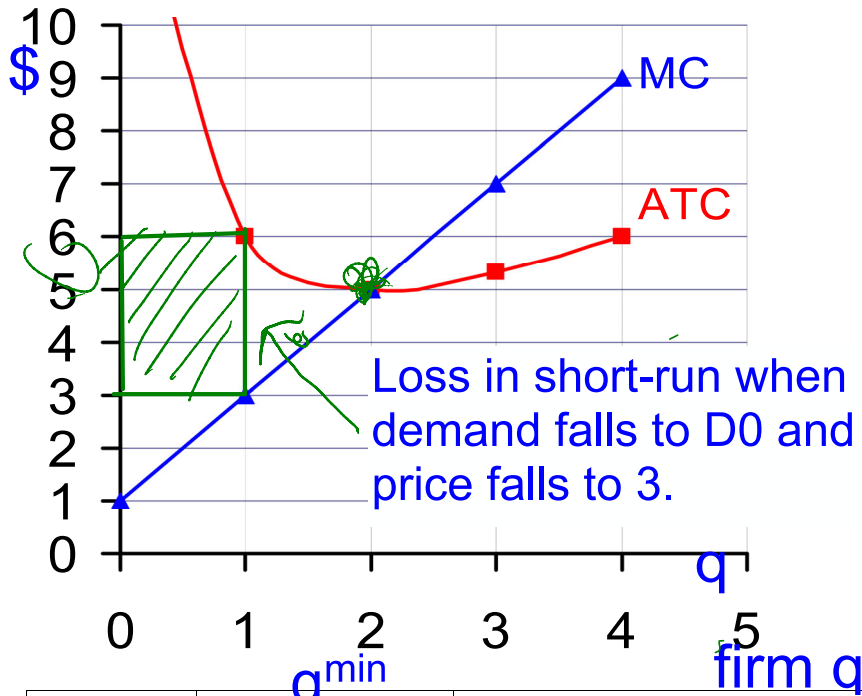
$$Profit = \{P - ATC\}q$$
$$= \{7 - 5.33\}3 = 5$$
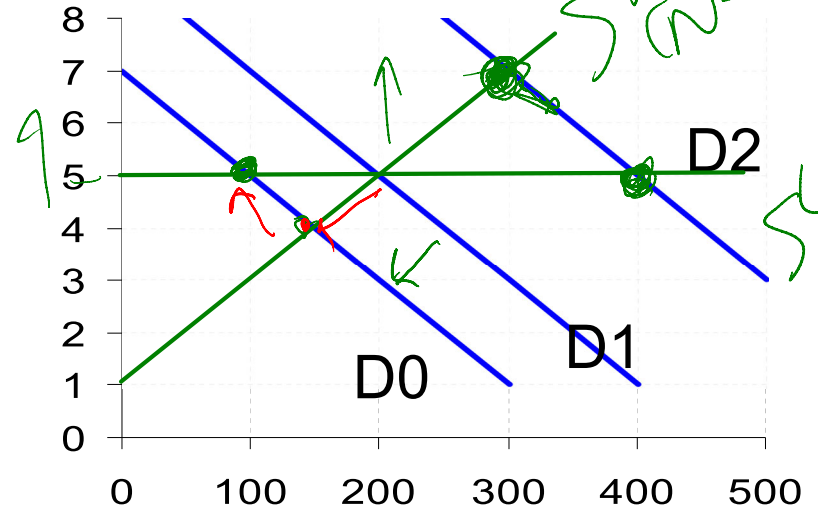

Find profit when:
P = 7?
P = 3?

Cost Structure

Price	Firm SR supply	Industry SR supply (N=100)
3	1	1*100=100
4	1.5	1.5*100=150
5	2	2*100=200
7	3	3*100=300

Short-Run Supply (N=100)

Start at D1.
    What is long run equilibrium?
    What is short-run supply curve?
Now shift to D0 or D2.
    Short-run? Long-Run?

Review assumptions where
Long Run Industry Supply looks like
this:

• Same Technology is available
for all
• No barriers to entry
• Input prices to industry do not go
up as the industry expands

Clear example: garden statue business

• Technology for making garden
gnomes available for all.
• No restrictions to entry.
• It is such a small part of the market
for all of its inputs (e.g. cement,
paint, unskilled labor), that demand
for garden gnomes could increase
by a factor of 10 and it won't make
any difference for the price of the
inputs.

We concluded: Long-run supply is
perfectly elastic at P = MinATC

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Supply curve of taxicabs in New York start to go upward sloping at the point where all the taxicab medallions are in use so there is no more entry. An quantity can only increaseif drive existing cabs more (along short-run S.)
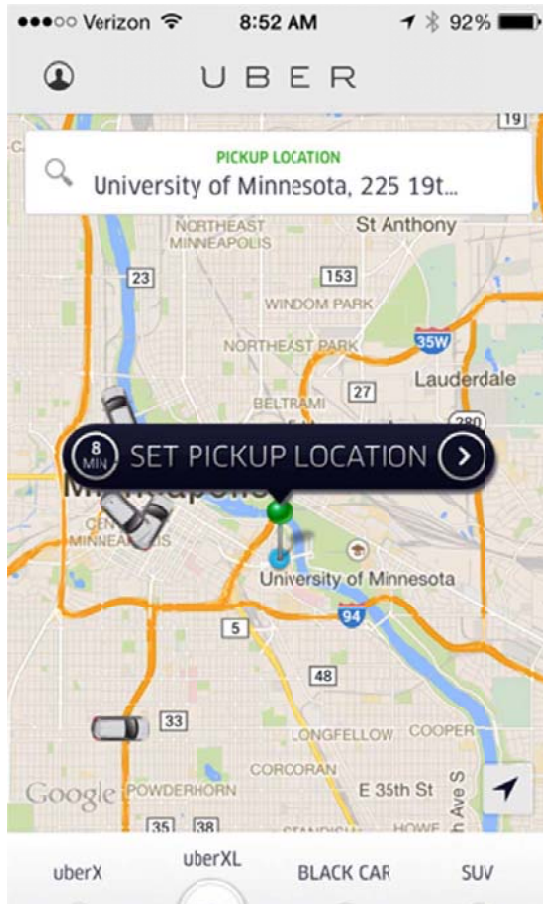
Another example:

Taxicab business
(if not regulated by requiring a medallion for entry)
None of this:

NEW YORK CITY
TAXI AND LIMOUSINE COMMISSION
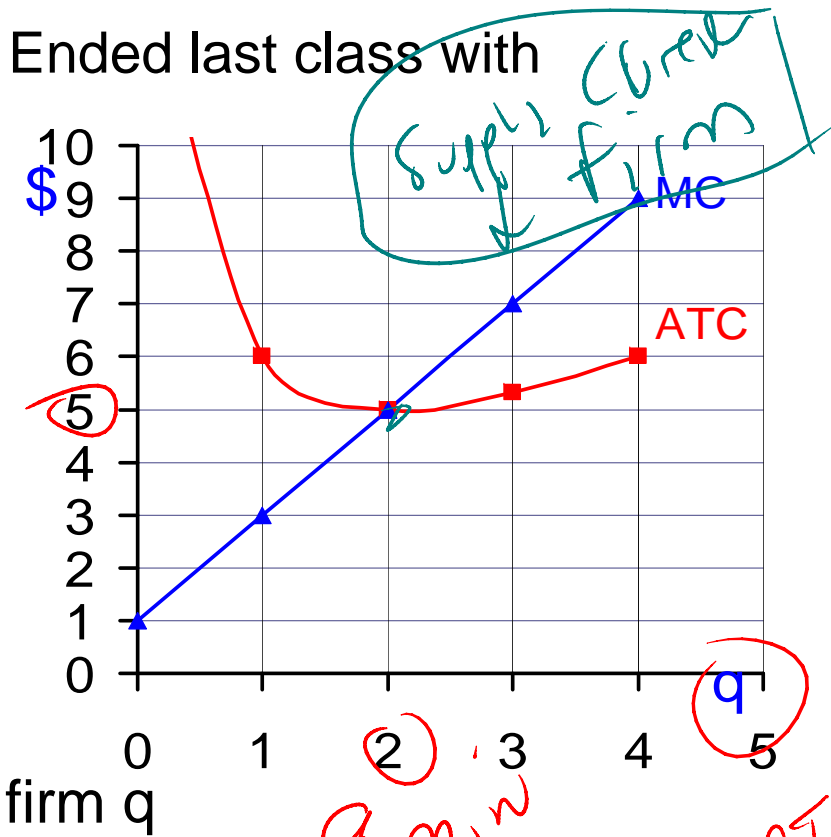LICENSED TAXICAB 1B44
2007-2009
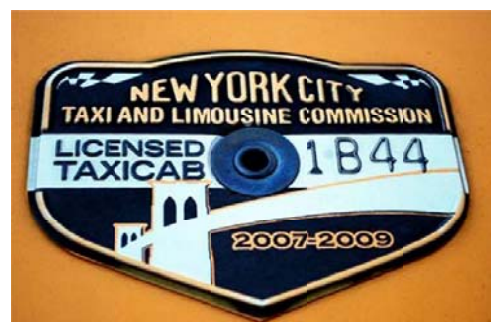
Uber driver
Think of each car as a one firm.
Think of q is the number of hours the car is driven in a day.

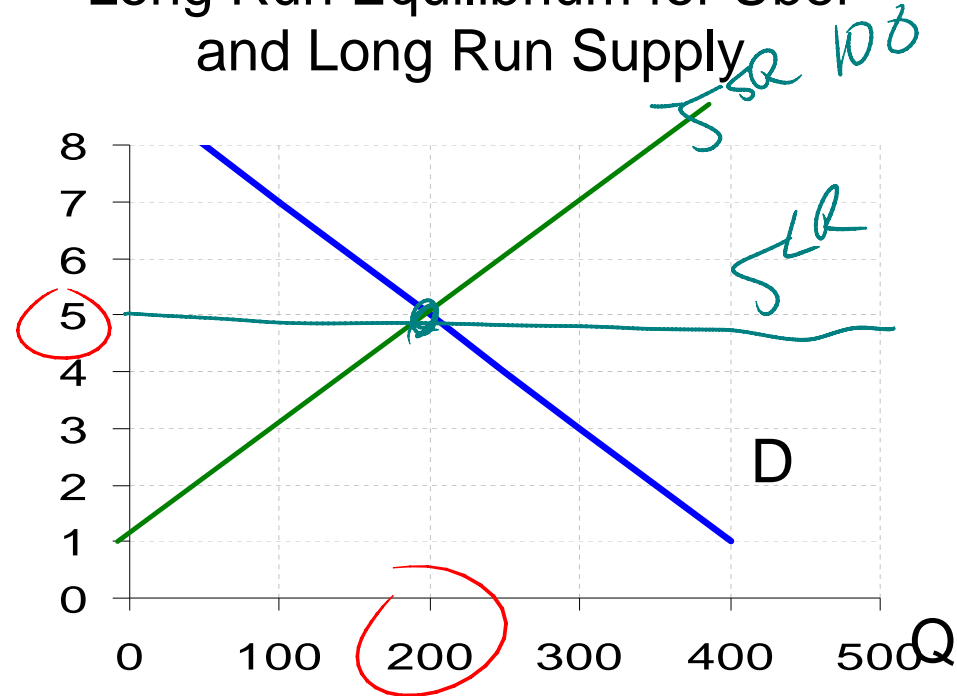Note: zero profit condition means zero profit net of opportunity costs
- Driver needs to get paid for opportunity cost of time
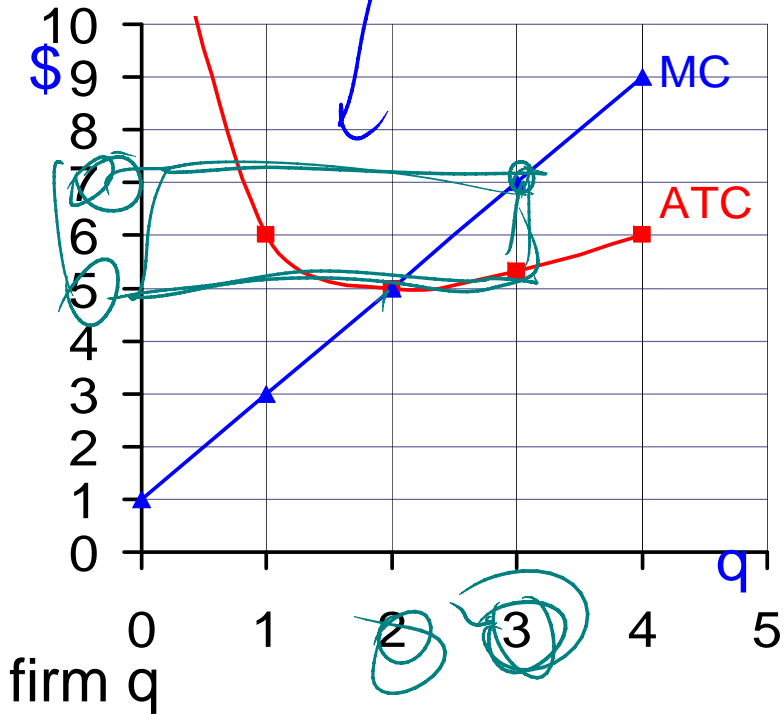- Owner of vehicle gets return on insvestment

Ended last class with

(handwritten, circled: Supply curve firm)

Left graph axes: $\$$ (vertical), firm q (horizontal, 0–5). Lines labeled MC (blue), ATC (red). Value 5 circled on $\$$ axis. 2 circled on q axis. Point at q=2 marked.

(handwritten red: q_{min} = MINATC)

Variable	Definition	Value
P^{LR}	long-run price	5
Q^{LR}	long-run quantity	200
q^{LR}	output per firm	2
N^{LR}	number of firms	100

Long Run Equilibrium for Uber and Long Run Supply

(handwritten: S_{SR} 100, S_{LR})

Right graph axes: vertical 0–8, horizontal Q (0–500). Lines: D (blue, downward), S (green, upward), S_{LR} (teal horizontal at 5). Equilibrium at Q=200 (circled), price 5 (circled).
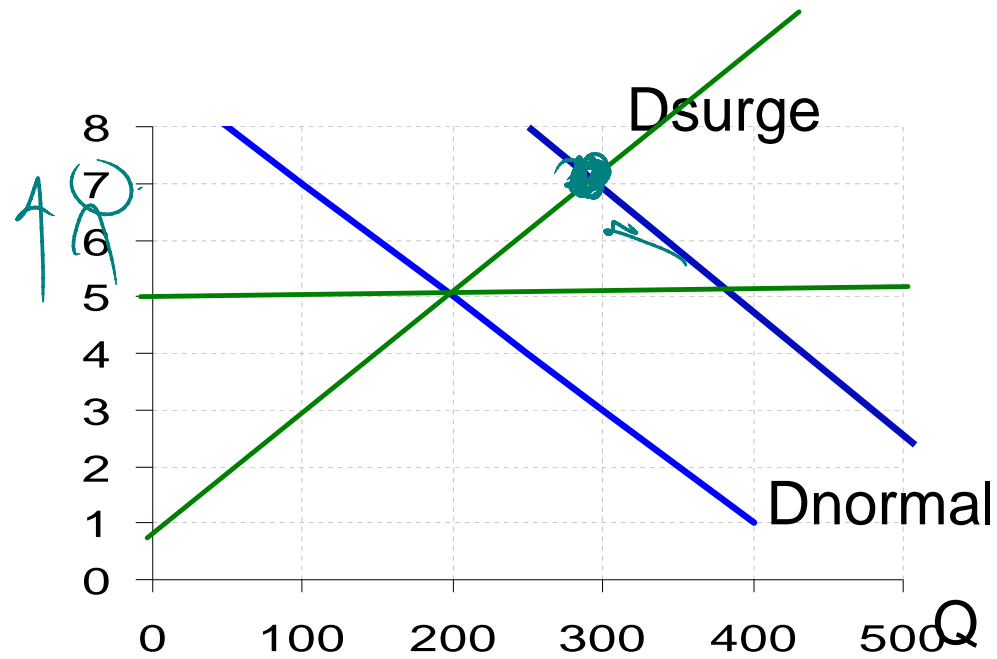
Profit with surge pricing

firm q

Suppose in long run equilibrium, but there is a temporary shift in demand? Uber can use surpricing

What Happens with a Temporary Surge in Demand

Move along a short turn supply with $N^{LR} = 100$ Uber drivers

If the surge turns out to be permanent, then what happens?

2. Other Cases of Long-Run Perfectly Elastic Supply?

Again the **Assumptions:**
• Same Technology is available for all
• No barriers to entry
• Input prices to industry do not go up as the industry expands

Other examples besides garden gnomes and Uber
How about week long ocean cruises?
  • In short run # vessel fixed (and captains..) in short run as demand goes up price of cruise increases
  • long-run get more entry (and captains....)

Should work for goods like:
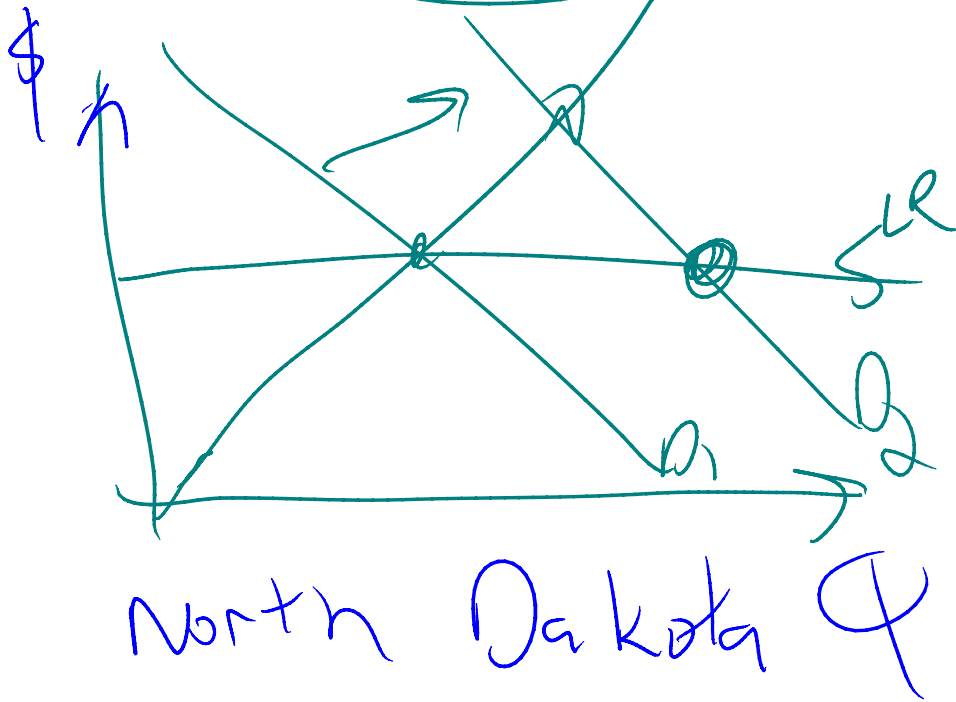 • chicken...
  • granite countertops

Should work for gasoline market for a small country like Norway

But why won't the theory work as well for the gasoline market in the U.S. (Hint U.S. consumes a large share of world oil supply).

What about the market for playing 18 holes of golf in...

Manhattan?
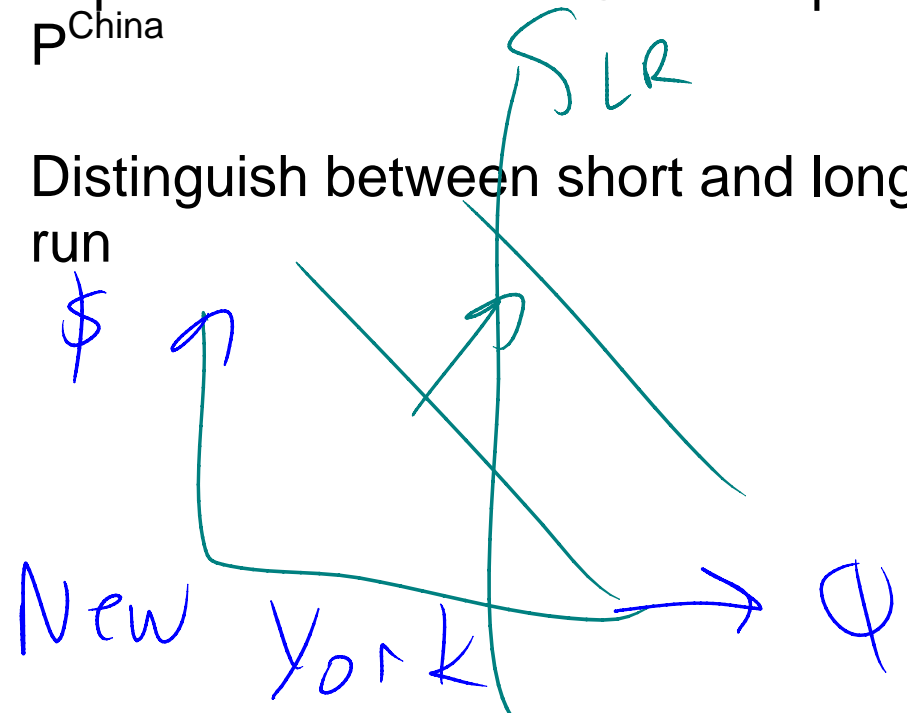
Anywhere in North Dakota?

North Dakota Q
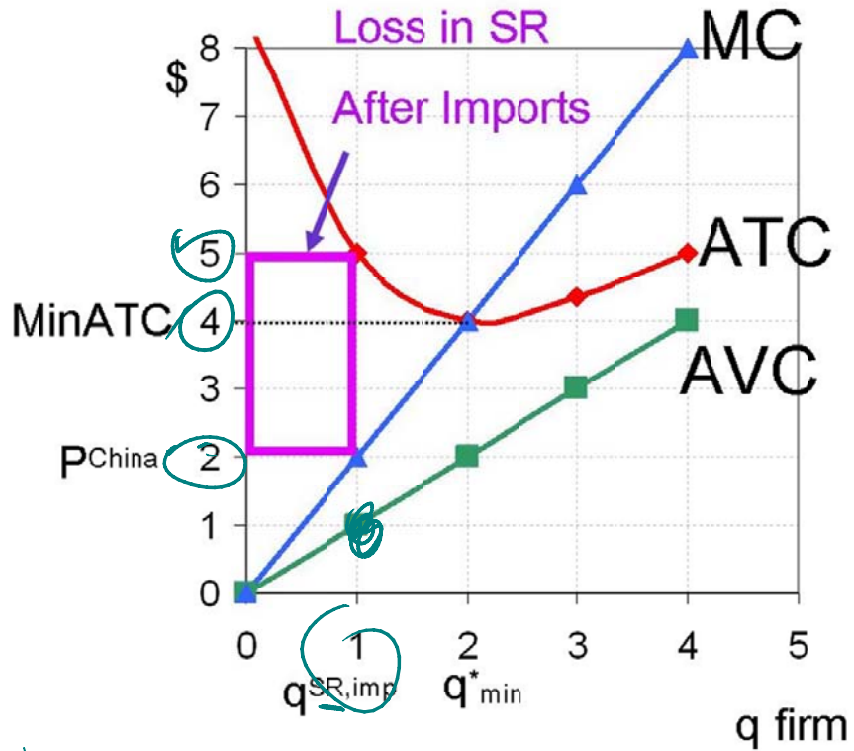
Impact of Imports (Reading 5) 5

Initial Situation: No imports from China.
(Because not developed enough or because of import restrictions)

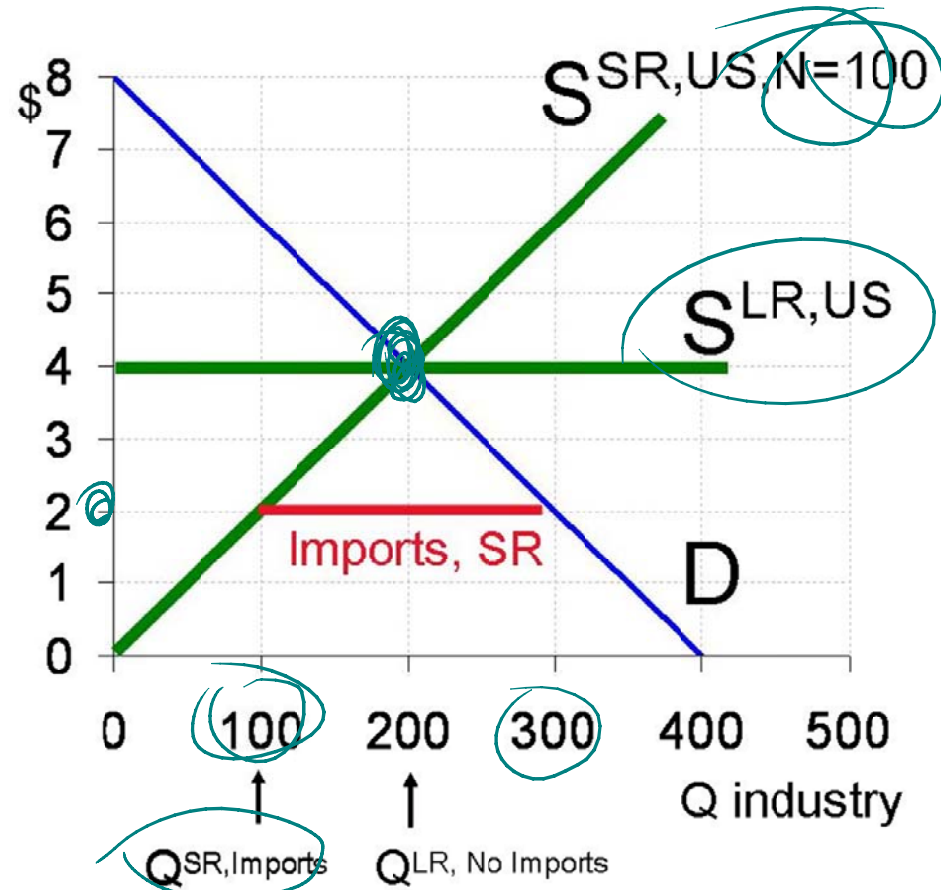New Situation:
Imports come in from China at price P^{China}

Distinguish between short and long run

New York Q

Impact of Imports in the Short and Long Run

Cost Structure of Firms

Industry Level Variables

Initial Long Run Equilibrium
$P^{LR}=4$, $Q^{LR}=200$, $q^{LR}=2$, $N=100$

Short run impact:

$Q^{SR,US,Imports}$ = $\underline{}$ $300 - 100 = 200$

P^{SR} = $\underline{}$ 2

Imports, SR = $\underline{}$ 200

Long Run Impact
$Q^{LR,US,Imports}$ = $\underline{}$ 0

P^{LR} = $\underline{}$ 2

Imports, LR = $\underline{}$ 300

Now look at a list of industries hit by a surge from China)

Reading 6
International Application
Consumer Goods Manufacturing: The Rise of China and Plant Exit in the United States

All of these industries are intensive users of low-skill labor for assembly.

If have time let's look for a few minutes at the clip "With These Hands"
http://www.youtube.com/watch?v=2_qKYolUU_A
About the last day of work at the Hooker furniture factory Virginia (I've added a link at the bottom of Reading 6)

See lot of scenes of low skill workers doing routine tasks.

There are strong economic forces to move that kind of work outside of the U.S.

Industry	Import Share Shipments (percent)		China Share Imports (percent)		Percent Change in U.S Employment
	1997	2007	1997	2007	1997-2007
Curtain & drapery mills	8	56	38	65	-47
Other household textile prod mill	22	68	25	49	-51
Women's & girls' cut & sew dress	29	67	21	55	-71
Women's & girls' cut & sew suit,	48	92	19	49	-91
Infants' cut & sew apparel mfg	60	99	08	62	-97
Hat, cap, & millinery mfg	44	80	26	67	-74
Glove & mitten mfg	58	88	50	63	-78
Men's & boys' neckwear mfg	25	56	02	59	-67
Other apparel accessories	39	80	35	64	-75
Blankbook, looseleaf binder,	18	47	43	52	-51
Power-driven handtool mfg	28	56	18	46	-56
Electronic computer mfg	12	49	0	56	-68
Electric housewares & fan mfg	52	78	48	76	-54
Wood household furniture mfg	29	62	18	46	-51
Metal household furniture mfg	29	55	37	85	-48
Silverware & plated ware mfg	44	91	31	73	-82
Costume jewelry & novelty mfg	31	68	31	67	-63
Mean of China Surge Industries (N=17)	34	70	26	61	-66

Within industries, the segments that have survived tend to be different from the part that has left.

Example of wood furniture industry
- In 1997 and earlier, dominated by places like Highpoint, NC
- Large plants making standardized products for mass market.
- These places mostly in South
- Custom, hand crafted segment scattered around the country in small plants
  - Need to be close to supply of craftsman (e.g. Amish)
  - Good to be close to consumers for custom work

Example of clothing industry

- Also dominated by places in the South
- New York city retained fashion element in small craft-oriented plants

What has happened?
- China is knocking out the large plants in North Carolina making standardized goods for the mass market.(China the new North Carolina)
- Small plants doing custom work have increased share (and places like New York)

China's comparative advantage is weakest in:

1) Custom element (helps to be close for this, quicker turnaround, better communication.

2) Cases where high end niche products, with premium on fashion and creativity.

Even for these segments, prospects not great not always so great for American manufacturers
1) segment small
2) communication getting better so possible to do custom at a distance.
3) China moving up quality ladder.