Lecture 10: Comparative Advantage and Gains from Trade

October 29, 2024

Overview

1. Administrative Notes
2. Ripped from headlines
3. Comparative Advantage and Gains from Trade

Course Administration

1. Midterm return at the end of class
2. Vanilla summaries graded next week – apologies
3. Case summaries remaining for Lectures 13 and 14
4. Please come to office hours
5. Problem Set 8 posted
6. Chapter 8 End-of-Chapter questions posted
7. Any other questions or outstanding issues?

Midterm Results

Raw Scores

Range	Both	Aft	Eve
40-50	5	3	2
$>$ 50 - 60	0	0	0
$>$ 60 - 70	3	3	0
$>$ 70 - 80	9	7	2
$>$ 80 - 90	11	7	4
$>$ 90 - 100	11	4	7
Exams	39	24	15

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$>$ 60 - 70	3	3	0
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$>$ 80 - 90	11	7	4
$>$ 90 - 100	11	4	7
Exams	39	24	15

Curved Scores

Range	Grade	Both	Aft	Eve
$>$ 43 - 60	C	5	3	2
$>$ 60 - 70	B-	3	3	0
$>$ 70 - 80	B	9	7	2
$>$ 80 - 85	B+	7	4	3
$>$ 85 - 90	A-	4	3	1
$>$ 90 - 100	A	11	4	7
Exams		39	24	15

Looking Forward

- If you are on the border of a letter grade, I round up
- If you got an A and are willing to volunteer to help a student, email me
- If you got a B- or below and would like a student partner, please let me know
- If you scored 50 or below, please come see me in office hours regularly

How What You're Learning is Policy-Relevant

Ripped from Headlines presentation(s)

As a reminder, next week

Send the article by Wednesday midnight for approval

Afternoon, joint presentation

Finder	Presenter
Matias M.	Jenna A.
Elly H.	Motunrayo F.
Lillien S.	Tia V.

Evening, individual presentation

Finder	Presenter
Elizabeth A.	Heidi M.
Chase K.	Baylee W.

Today's Ripped from the Headlines

Afternoon, joint presentation

Finder	Presenter
Samantha C.	Halle V.
Motunrayo F.	Taryn G.
Tia V.	Michael J.

Evening, individual presentation

Finder	Presenter
Heidi M.	Tanya Q. (choose your article!)
Katelyn H.	

Today: Comparative Advantage and Gains from Trade

1. Gains from Trade
2. Comparative Advantage
3. Power of Prices
4. How Managers Can Harness Market Forces

1. Gains from Trade

Gains from Trade

Gains from trade:

- $\equiv$ benefits from reallocating things
- $\equiv$ economic surplus resulting from trade

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Why do they exist?

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- trades are voluntary
- engage in trades that leave at least one party better off

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Examples

- US exports movies, imports TVs
- You buy dinner
- More examples, pls!

2. Comparative Advantage

Comparative Advantage

(a). Why should you care about comparative advantage?
(b). What is it?
(c). Using logic of comparative advantage
(d). Comparative advantage in markets
(e). Comparative advantage in international trade

1(a). Why Should You Care About Comparative Advantage?

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Comparative advantage determines

- who produces what
- who does which tasks
- how beneficial it is to divide tasks into sub-tasks

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Explain how this could apply to your work

1(b). What is **Absolute** Advantage?

Time in Hours to Complete a Policy Proposal

	Tasks	
Mr.	Communication	Analysis
1	2	4
2	3	5
3	2	2
4	4	8

1(b). What is **Absolute** Advantage?

Time in Hours to Complete a Policy Proposal

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2	3	5
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- Who can do any task with fewest inputs?
  - absolute advantage

1(b). What is **Absolute** Advantage?

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- Who has absolute advantage in analysis?

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- Who has absolute advantage in analysis?
  - Mr. 3

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- Who can do any task with fewest inputs?
  - absolute advantage
- Who has absolute advantage in analysis?
  - Mr. 3
- Absolute advantage does not indicate who should do task

1(b). Calculating Comparative Advantage

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- This means you need to know
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  - and a comparison with someone or something else

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$$\text{Opp. Cost of Task} = \frac{\text{hours this task takes}}{\text{Hours req'd to produce alternative}}$$

1(b). Calculating Comparative Advantage

Time in Hours to Complete a Policy Proposal

	Tasks in hours		Opp. Cost of Tasks Ratio of Hours to Alternative	
Mr.	Communication	Analysis	Communication	Analysis
1	2	4	2/4	4/2

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Time in Hours to Complete a Policy Proposal

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Mr.	Communication	Analysis	Communication	Analysis
1	2	4	2/4	4/2
2	3	5		

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2	3	5	3/5	5/3
3	2	2	2/2	2/2
4	4	8	4/8	8/4

1(b). Who Should Do What?

Time in Hours to Complete a Policy Proposal

	Tasks in hours		Opp. Cost of Tasks Hours:Alternative	
Mr.	C	A	C	A
1	2	4	1/2	2
2	3	5	3/5	1 2/3
3	2	2	1	1
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- If we chose by absolute advantage, who should do what?
  - Mr. 3 should do everything
- If we choose by comparative advantage, who should do what?
  - C: Mr. 1 or Mr. 4 should communicate
  - A: Mr. 3 should analyze

1(b). Recipe for Calculating Comparative Advantage

1. Determine how long each task takes each person. $\rightarrow$ cost of producing goods in hours
2. Convert into opportunity cost by calculating how much of the alternative good you could have produced in that time
3. Evaluate who has the comparative advantage at each task by assessing who can produce each good at lowest opportunity cost

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You cannot be "comparatively" better at everything

1(c). Use Comparative Advantage to Assign Tasks to Workers

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1(c). Use Comparative Advantage to Assign Tasks to Workers

- Who is better at cleaning teeth? Dentist or hygenist?
  - Why doesn't the dentist clean your teeth?
- Why does the doctor not check your blood pressure?
- Why are there fewer paralegals per lawyer in the biggest US cities?

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- Markets allow trade that lets people specialize in their comparative advantage

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  - imagine a world where all fields are equally productive for all crops

1(d). How Markets Facilitate Gains from Trade

- Markets allow trade that lets people specialize in their comparative advantage
- Gains from trade arise from comparative advantage
  - if everyone did everything equally well, there would be no reason to trade
  - imagine a world where all fields are equally productive for all crops
- Comparative advantage makes specialization worthwhile

Comparative Advantage Explains Trade at Many Levels

- within a household
- within a city
- within a country
- across countries

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Forces stemming from comparative advantage reallocate resources to most productive use

3. Power of Price

Price is Information About the Market

- We'll discuss 3 ways in which price delivers information
  1. as a message
  2. as an incentive
  3. as an aggregator of information
- Not mutually exclusive

3(a). Price is a Message

1. Message to producers
   - reveals value of product
   - what does a high price say?

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   - what does a high price say?
   - what does a low price say?
3. Coordinates better outcomes
   - can deliver news at a distance, without shared language or culture
   - think of spice trade between Asia and Europe

3(b). Price is an Incentive

- Incentive to producers
  - high price $\rightarrow$ produce more!
  - low price $\rightarrow$ produce less!
- Incentive to consumers
  - high price $\rightarrow$ consume less!
  - low price $\rightarrow$ consume more!
- Incentive for strangers to cooperate

3(c). Price Aggregates Information

- Price is an equilibrium outcome
  - what producers do
  - what consumers buy

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- Price is an equilibrium outcome
  - what producers do
  - what consumers buy
- Stock price: how we expect company to do now and in the future
- Futures prices: expectation of future prices
- Think about how rent and home price differ
  - Rent: today's value only
  - Home price: today's value + future changes

What Markets Do You Participate in Without Clear Prices?

What Markets Do You Participate in Without Clear Prices?

- Choosing classes
- (largely) K-12 education
- Certain types of healthcare services

4. Managers and Market Forces

How Markets Can Help Managers

- Managers want to allocate resources to the most profitable use
- How can they know which use is most profitable?

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- How can you replicate this within a firm?

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  - price!
- How can you replicate this within a firm?
  1. Feeding America
  2. Transfer pricing

Internal Markets and Feeding America

The Problem

- Feeding America is the US's third largest not-for-profit
- Food bank that gets donations from large (Conagra, Kraft) and small firms
- Sends centrally gathered food to local food banks
  - banks often run out of storage space
  - get food their clients don't want
  - some banks already get food locally
- How to fix?

The solution

- U of Chicago economists design system
  - each local food bank gets "shares"
  - needier banks get more shares
  - local banks bid daily on food items
  - can "sell" locally donated food
- What should it improve?
  - allocation across locations
  - excess food in some
  - trade-offs between different types of food

Read more here, here and most completely here.

Comments from a Previous Dissenter

"John Arnold, a director of a food bank in western Michigan who died in 2012, at first rejected the new approach: 'I am a socialist,' he said. 'That's why I run a food bank. I don't believe in markets.' But despite his initial objections, he became a champion of basic market reforms and continued to innovate, pioneering 'free market' inventions like allowing food bank clients to choose their own food, instead of making everyone accept the same basket, as early as the mid-1990s." *NYT*, linked, previous slide

Internal Transfer Prices

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  - in 1998, assign permits across entire company
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  - how does this improve efficiency?

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  - in 1998, assign permits across entire company
  - allow trade in permits
  - how does this improve efficiency?
- HP gives sales people \$20 to bet on future sales where you make money if you predict correctly; market predictions better than internal predictions
- Textbook also discusses prediction markets
  - make people bet on outcomes
  - market outcomes sometimes better than polls

In Sum: Power of Markets

- Well-functioning markets allow trade across place
- Allocate goods and services efficiently
- Final allocation depends on tastes and initial levels of income and wealth

For Next Class

- No class next week
- See you Nov. 12 – but come to office hours next week!
- No office hours Nov. 11
- Do problem set
- Read Chapter 14
- Read Ripped from Headlines articles

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I will

- post these lecture notes on my webpage
- post link to lecture recording on Blackboard
- post or prepare vanilla assignment grades
- anything else?