ECON 206
MACROECONOMIC ANALYSIS

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Chapter # 14a

Why do we care about international trade?

- We all remember our national income accounting identity, which includes EXports minus IMports, or the trade surplus:

$$Y = C + I + G + \underbrace{EX - IM}_{\text{the trade surplus}}$$

- What happens to national income, Y, when imports are greater than exports, IM > EX?
- It **falls** — exports are more income for a country, while imports substitute for goods that country could produce but chooses not to
- Does this mean that imports are **bad**? *Not necessarily*

International Trade

Chapter 14 (1 of 2)

Why might imports be good?

- What do we do with imports?
- **Consume** them or use them as **investment** goods, both of which improve well-being:
  - Imports we consume are things like Sony Playstations and Nintendo Wii's, which are a lot of fun!!!
  - Imports we "invest" are specialized tools like giant floating cranes that unload tankers more efficiently, which help us get Playstations and Wii's more easily!
- Why did we import these goods?
  - Their prices were low enough so that purchasing them from somebody else was better than building them ourselves

Overview of today & next class:

- Foreign trade: what is it & **why** do we do it?
- The principle of **comparative advantage**
- Factors of production — labor and capital — can also be traded, and *immigration* and trade are related
- Next time: Trade deficits are like borrowing, while trade surpluses are like saving, and government budget deficits matter too!

Why might imports be "bad?"

- Consider an individual person, rather than a country
- Let's take a college professor who produces lectures
- This professor earns $60,000 teaching and spends $50,000 locally in apartment rent
- How much would the professor **save**? 60K – 50K = $10,000
- Now imagine that the professor buys a Nintendo Wii for $250 — now how much is saving? $10,000 – 250 = $9,750
- Importing increases consumption, which rises from $50,000 to $50,250, but it **decreases saving**, which will lower investment, other things equal. The professor saves less for retirement or consumption later, and less money goes into the domestic capital stock

Why *else* might imports be "bad?"

- Who competes with Nintendo?
- Sony, but also ***Microsoft***

- How much does a Microsoft Xbox 360 cost? A little over 300, compared to $250 for a Nintendo Wii
- So it's cheaper for the professor to buy the Wii
- But Microsoft is a U.S. company, while Nintendo is Japanese (true, Xboxes are manufactured overseas, but Microsoft's profits are reported and distributed in the U.S.)
- So when the professor buys the Wii instead of the Xbox, Nintendo earns his $250, which compensates Japanese workers and stockholders, and *shrinks Bill Gates's bottom line*
- Since imports are produced by foreign **factors** — domestic factors, **workers** and **investors**, lose the opportunity

This is the Principle of Comparative Advantage

- On Gilligan's Island, even when the Professor is more productive than Gilligan at everything, *there are still gains from specializing and then* ***trading***
- We do this every day of our lives with local trade:
  - I produce and trade away my teaching services
  - I trade for food and other goods and services even when I think I could produce them more efficiently if only I had the time!
  - Case in point: home cooking is often preferable, but it's better for me to spend my time either working or eating, not cooking
- At the **international** level, the *very same principle applies!*
- With their high total factor productivity, U.S. workers might be better at producing *many things*, but we still specialize & import

Trade is good because it allows us to **specialize** in what we do best

- Who doesn't trade? It's rare — let's imagine a smart, able-bodied hermit living alone somewhere ("The Professor" from "Gilligan's Island")

- He must **produce everything** he consumes: gathering coconuts, trying ways to get off the island
- He doesn't have much free time! It's hard to do both
- Now imagine a lone shipwreck victim washes up onshore
- What should the **two** of them do?
- **Work together**, divvying up the tasks and sharing the results
- If both are able-bodied and smart, one of them can collect coconuts while the other thinks, and they're both better off

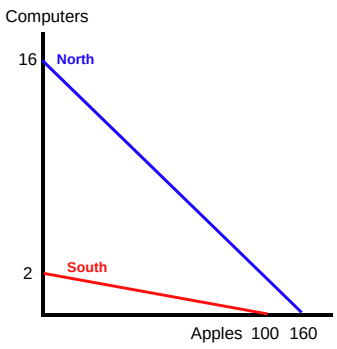
Let's try a graphical example

- Consider **two countries**, North and South, and **two goods**, apples and computers, that workers in each country can produce
- North's workers are just more productive than South's workers, but there will be gains from specialization and trade!
  - A worker in the **North** can produce 160 apples or 16 computers
  - A worker in the **South** produces either 100 apples or 2 computers
- People in both countries like to eat apples and use computers
- So if North and South do not trade, each country will have some workers producing apples while other workers produce computers, so they can consume both types of goods
- How does this appear *graphically*?

But what if the shipwreck victim is less productive at everything?

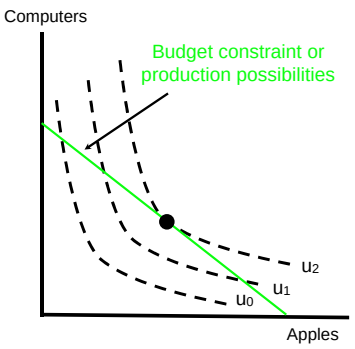
- Imagine that it's Gilligan who washes up ashore, and he's a total dunce! He'd spend all day dropping coconuts on his feet and shouting "OW!" and you don't want him thinking up ways to leave the island
- What's better — should the Professor shrug his shoulders, turn his back on poor Gilligan, and collect coconuts and figure out how to leave the island all on his own?
- You've seen the show. The answer is **no**, the Professor *still specializes in* ***what he does best*** — he's always making batteries out of coconuts and trying to get the radio working, sort of like the "A-team" or "MacGyver"
- Meanwhile, Gilligan collects coconuts, and then they **trade** *even though the Professor is better at collecting coconuts* ***and*** *at thinking*

We examine the production possibility frontier in each country



- Let's look at per-capita production
- **North** produces 16 computers or 160 apples per person, and possibilities are linear
- The **slope** is the **price** of apples in terms of computers
- **South** produces either 2 computers or 100 apples per person
- **North** has the *absolute advantage* in both goods: it can produce more of each good per person
- Why should the **North** trade at all? Preferences?

Preferences appear as indifference curves

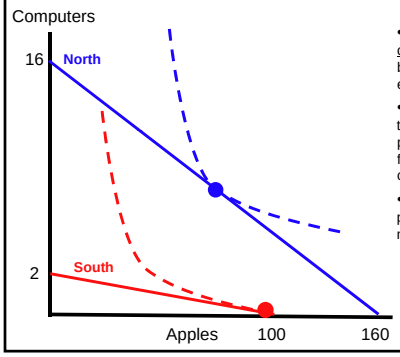


- In each country, consumers like to eat apples and have computers together
- If computers are really expensive, they'll eat more apples. If apples are expensive, they'll buy more computers
- Consumers will be indifferent over bundles along a convex curve like this — this *indifference curve* shows utility at some level u_1
- Indifference curves don't overlap, & more is better
- Consumers choose a bundle on the *highest feasible* (tangency)

What have we learned?

- Even when one country is better at producing **everything** than another — like how workers in the U.S. are more productive at producing everything (on average) — there are still gains from specialization and trade!
- This is the principle of comparative advantage! Trade will benefit countries that specialize in producing whatever they are comparatively better at, even if they are not the absolute leader in anything!
- Think: Gilligan collects the coconuts even though he's a goof, while the Professor focuses on how to get off the island, even though he's better at collecting coconuts than Gilligan is
- But national economies are made up of more than just one *average* person — there are identifiable groups with particular skills at doing particular things, even though we all consume

Consider the highest utility obtainable when North and South don't trade



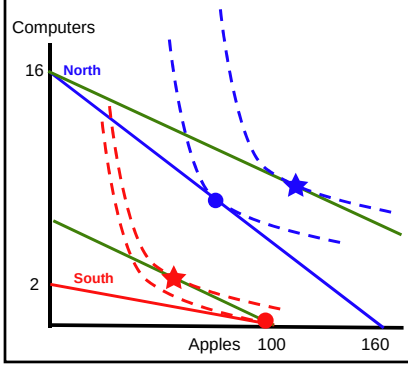
- We assume that indifference curves are shaped similarly in both countries, since everybody likes both goods
- If **North** and **South** don't trade, they will choose these points as optimal — the furthest to the northeast they can get
- In the case of **South**, production of computers might be very low!

If people in each economy have different skills, what happens?

- The benefits of free trade accrue through **specialization** — for example: U.S. workers all engage in the legal profession while all Canadian workers engage in bacon production
- But not everyone in the U.S. wants to go to law school, nor would they graduate if they did

- In this example, U.S. pig farmers and bacon curers would find themselves **jobless** after trade with Canada commenced
- Today, we frequently call this problem "job outsourcing" — frequently in regards to the white-collar jobs like computer programming that can be staffed more cheaply in India
- In an earlier era, Ross Perot referred to a "giant sucking sound" when he opposed NAFTA in 1992, thinking U.S. jobs would be vacuumed away to Mexico. NAFTA passed anyway

But what if North and South can trade?



- If **North** and **South** **can trade**, they will haggle on an international price — a new slope of their mutual production possibilities, between the two old slopes
- The new production possibilities curves *with trade* have a slope like **this**
- If countries can trade, they will **specialize**, **North** producing all computers and **South** producing all apples, and then they will trade to achieve higher utility in each!!!

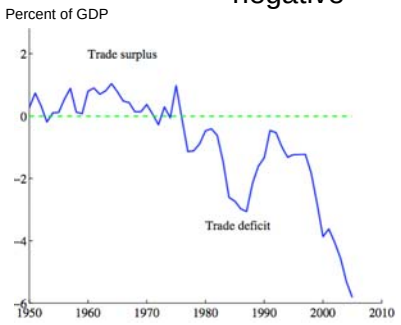
Who gains and who loses from trade?

- It is tempting to say that **corporations** gain from trade
- Some do, but *who owns* public corporations? Members of **the public** who own corporate stock and bonds ultimately own them. (But not everyone owns stock!)
- **The public** gains from free trade in the lowering of prices due to efficiency gains — so that on average, we are better off from trade because our money goes further
- But **displaced workers** clearly lose from trade. If you have trained to be a coal miner or steel producer in the U.S., your individual economic pain is high, and it is not offset by your gains from cheaper goods
- **Displaced corporations** also lose from trade. Owners of U.S. steel mills, and in previous eras, automobile factories, rationally ask from protection from foreign competition

Rightly or wrongly, international trade ends up being a political issue

- The **losers** from free trade are always limited groups whose pain is considerable, so they are very vocal and motivated
- The **winners** from free trade are usually diffuse: all U.S. consumers, for example, so they are less politically motivated
- (There are also other reasons why trade becomes political, including issues regarding slave or child labor, and regarding barriers to trade such as tariffs/taxes and quotas)
- Good trade policy seeks to secure the gains from free trade while compensating the losers
- In the U.S., we have **trade adjustment assistance**, transfer payments meant to help retrain displaced workers

The balance of trade has swung strongly negative

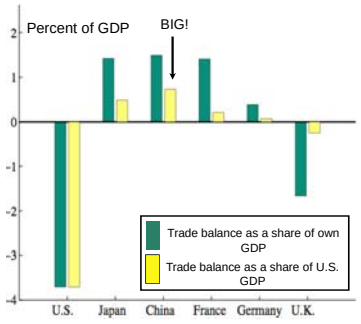


- Prior to the late 1970s, trade was roughly balanced or even in surplus
- Massive **trade deficits** first opened up in the 1980s
- Except for some relief in the late 1980s, the trade deficit has been increasing rapidly ever since, with no end in sight
- What is the cause of this massive shift?

What else is a fiery political issue?

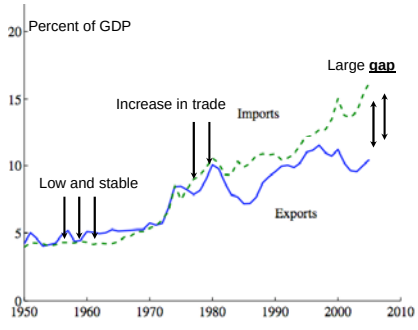
- The **IMMIGRATION** debate touches on very similar points
- Many immigrants seek economic gain: leaving low-wage countries where productivity is low in order to work in high-wage countries where productivity is high
- (Other immigrants are refugees — fleeing a region to escape violence or specific threats)
- Economic gains to the immigrant are typically larger than what could be accomplished through the trade of goods & services
- But immigrant workers may compete with native workers (and with other immigrants) and drive down wages since labor demand slopes down, at least in the short run
- Debates continue. Maybe a good way to proceed is with **immigration adjustment assistance** for natives

Foreign countries have trade surpluses that balance the U.S. trade deficit



- The green bars in this graph show the trade balances in each of these countries; Japan, China, and France all have surpluses about 1.5% of their GDP's
- The yellow bars show these trade surpluses as percentages of U.S. GDP, so that the length of other countries' yellow bars equals the length of the U.S. bar
- You can see that the deficit with **China** is very important!

How have imports and exports behaved over time in the U.S.?



- After the Second World War, imports and exports were each around 5% of GDP, or relatively low
- During the 1960s, U.S. exports exceeded imports!
- Starting in the 1970s, both increased a lot
- Exports dipped after 1980 and have since remained lower than imports
- Fueled by growth in imports, the gap between the two has since grown **large** ...

Next time

- The macroeconomic sources and implications of the U.S. trade deficit
- Trends in the U.S. trade position over time
- Domestic saving and investment, private and public (government), and foreign (imported) saving