

The Global Economy

Trade Theory

Are markets “moral”?

- Examples of markets working well? Not so well?
- Should we have more or less market activity in
 - International trade in goods?
 - International trade in assets?
 - Shortages after natural disasters?
 - Addictive drugs?
 - Human organs?
- Do markets contribute to prosperity?
- Are markets moral?

The idea

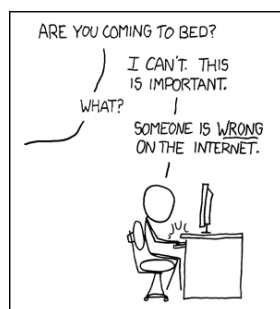
- International trade theory
 - International trade, and markets in general, are win-win: both sides of a trade benefit, or (presumably) they wouldn't do it. This is simple and compelling logic, not opinion.
- International trade reality
 - A fact of life in international business is that locals use their political connections against foreign competitors.

The idea (cave man version)



Source: Frank and Ernest.

The idea (my wife's version)



Source: vkcd.com

Roadmap

- Are markets moral?
- Trade facts
- The logic of markets
- Ricardo's model of trade
- Thinking about trade

Trade facts

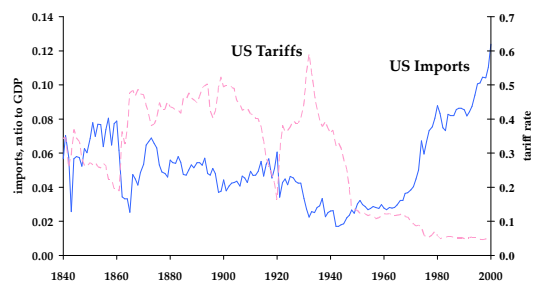
Trade has expanded



Source: WTO

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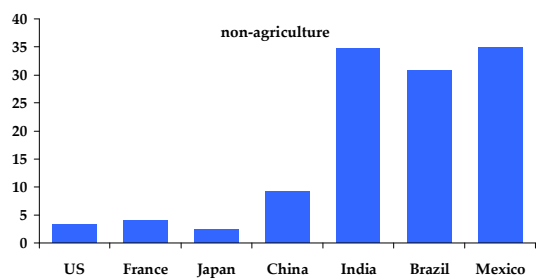
... but hasn't always



Source: WTO

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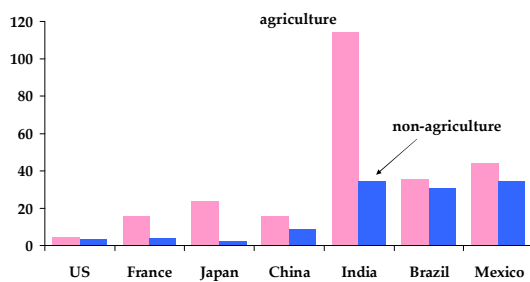
Average tariffs



Source: WTO

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Average tariffs



Source: WTO

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More than tariffs

- Subsidies to producers
- Especially agriculture in rich countries
- Health and safety regulations
- Voluntary export restraints
- Anti-dumping duties

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Trade facts: summary

- Trade is increasingly important
 - Not a sure thing, we've seen reversals before
- Many ways to stifle trade
 - Tariffs, regulations, paperwork
- Barriers on manufactured goods generally low
- Barriers on agriculture much higher
 - Especially in rich countries

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The logic of markets

The logic of markets

- Adam Smith, *Wealth of Nations*, 1776
 - By pursuing his own interest, **[an individual] is led by an invisible hand to promote the interest of the society** more effectively than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. (paraphrase)
- Logic
 - If two people or countries voluntarily exchange products, it suggests that both find it in their interest. It's "win-win."
Economic activity is a positive sum game.

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The logic of markets

- Adam Smith, *Wealth of Nations*, 1776
 - It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom.
- Who wins from protection? Who loses?

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The logic of markets

- First theorem of welfare economics
 - Under certain conditions, **competitive markets produce a good allocation of resources.**
- What conditions?
 - Clearly defined property rights, full information
- What do we mean by a "good allocation"?
 - No one can be made better off without someone else being made worse off. ("Pareto optimal")

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The logic of markets

- Voluntary exchange is "win-win"
 - Suppose two people value an asset or product differently
 - Trade can benefit both
 - What price?
 - Who gains? Who loses?

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The logic of markets

- Airlines, October 2001
 - Too many planes, too little cash
- General Electric
 - Lots of cash, major player in plane leasing business
- Solution: trade!
- What price?
- Who gains? Who loses?

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The logic of markets

- Goldman Sachs, September 2008
 - Liquidity tight, wanted cash
- Berkshire Hathaway
 - Lots of cash on hand, earning low returns
- Solution: trade!
- What price?
- Who gains? Who loses?

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The logic of markets

- What examples come to mind?

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Ricardo's model of trade

How most people think about trade

- Mexicans
 - We can't compete with the US, they're more productive
- Americans
 - We can't compete with Mexico, their wages are too low
- Trade is "lose-lose"
- Sound familiar?

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Ricardo's model of trade

- Why a model?
 - Simpler than the real world, a good way to check our logic
- Ricardo, 1817
 - Two countries, two goods
 - With free trade, each country produces one good
- Key concept: comparative advantage
 - Each country produces the good at which it is **comparatively** most productive
- Details in the notes

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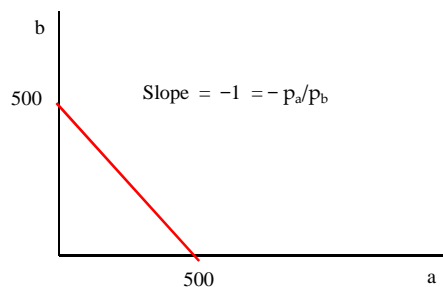
Ricardo: setup

- Two countries: US, Mexico
- Two goods: apples, bananas
- One input: labor
- Production function: $Y = AL$ (no K)
- Productivities A (output from one unit of labor):

	Apples/hr	Bananas/hr	Labor (hrs)
US	20	10	100
Mexico	5	5	100

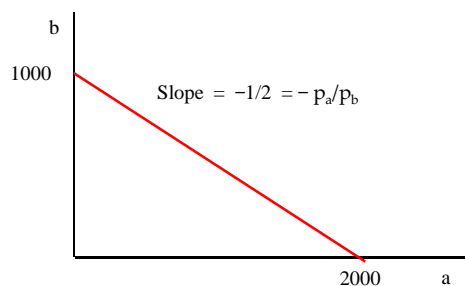
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Production possibilities in Mexico



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Production possibilities in US



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No trade: "autarky"

- With no trade
 - Production = consumption
 - Production possibility set = consumption possibility set
- Relative price of apples in US

$$p_a/p_b = 0.5$$
- Relative price of apples in Mexico

$$p_a/p_b = 1$$
- Note: apples cheap in US, bananas cheap in Mexico

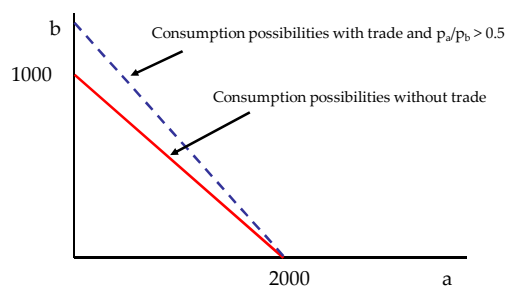
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What if?

- What if the US could trade apples for bananas with $p_a/p_b > 0.5$?
- What if Mexico could trade bananas for apples with $p_a/p_b < 1$?
- What should each country do?
- Who gains? Who loses?

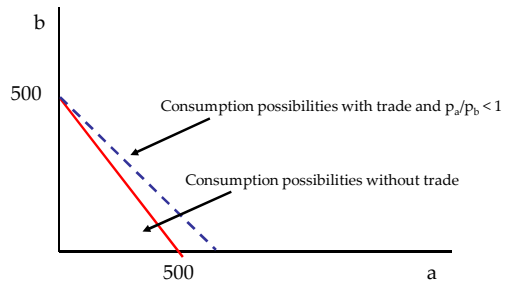
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Consumption possibilities in US



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Consumption possibilities in Mexico



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Comparative advantage

- Without trade
 - Relative price reflects only relative productivities
- With trade
 - Produce good with highest relative productivity
 - Comparative advantage!
- Relative productivity of apples
 - US: $20/10 = 2$
 - Mexico: $5/5 = 1$
- Relative productivity of bananas
 - US: $10/20 = 1/2$
 - Mexico: $5/5 = 1$

Who has the comparative advantage?

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Comparative advantage

- US trades apples for bananas
- Mexico trades bananas for apples
- Both trade on better terms than local production allows
- Consumption opportunities expand
- Voila!

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Trade and autarky

	Autarky	Trade
US		
Consumption of apples	1500	1500
Consumption of bananas	250	375
GDP at world prices	91.7	100
Mexico		
Consumption of apples	375	500
Consumption of bananas	125	125
GDP at world prices	27.1	33.3

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Thinking about trade

How people think about trade, cont'd

- How does Mexico compete against high US productivity?
- How does US compete against low Mexican wages?
- Who gains? Who loses?
- Why?
- What happens to overall productivity?

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How we think about trade

- Production done by most efficient producer
 - Stop producing in the inefficient sector
 - Shift resources to the efficient sector
 - This raises real wages
- Consumers buy from cheapest vendor
 - Allows them to consume more
- No change in number of jobs
 - Trade is about what jobs, not how many
- Same thing inside countries

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Trade and technology

- Is trade like new technology?
 - Both change production possibilities frontier
 - Both disrupt production and employment
 - Both generate complaints

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Winners and losers

- In our model, everyone wins
- In more complex models
 - Some people win
 - Some people lose
 - But winners gain more than losers lose
- Examples?

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Automobile productivity

- New technology for making cars
 - Technology breakthrough reduces labor requirement
 - Thousands thrown out of work
- Who gains? Who loses?
- Is this good for the economy as a whole?

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Automobile productivity

- New technology for making cars
 - Grow soybeans in Iowa
 - Ship them to Japan, get cars in return
 - Thousands thrown out of work
- Who gains? Who loses?
- Is this good for the economy as a whole?

Source: Steve Landsburg

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What have we learned?

- Globalization is a fact of life
- Clear logic for (competitive) markets and trade
 - Production more efficient (“comparative advantage”)
 - Consumers get lower prices
 - Win-win: “comparative advantage”
 - Like new technology?
- More shortly

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The Global Economy

Trade Reality

Roadmap

- What's coming up
- Problem Set #2
- Trade fallacies
- If trade is so great...
- Offshoring
- Trade restrictions

What's coming up?

- We're finishing "long-term economic performance"
- Midterm next class
- Bring calculator that does logs and exponents
- Also one page, both sides, with anything you wish
- Practice exams now posted
- Also answers to problem sets and practice problems
- Special office hours Fri & Sat (other times by request)

Problem Set #2

- Answers attached, will be posted Saturday

Problem Set #2

- Question 2: What's going on in Italy?
- GDP growth? Productivity? Institutions?

Problem Set #2

- Question 3: Would you locate a plant in Brazil, the Czech Republic, or Singapore? Why?

	Brazil	Czecho	Singapore
Hourly direct pay (USD)	5.95	7.23	15.71
Hourly total compensation (USD)	11.20	11.95	24.16
Literacy of adults (%)	90	100	96
Minimum wage (monthly, USD)	350	440	0
Severance (weeks, 10 years experience)	36	13	0
Strictness of employment protection (index)	1.75	2.66	—
Average years of school (age ≥ 25)	7.6	12.1	9.1

Trade fallacies

The fallacy game

- Think about how this works in Ricardo's model
- Add anything you think is missing

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Fallacy #1

- Trade costs us jobs
- Why a fallacy?
 - Trade is about what jobs, not how many
 - What they're really saying: "I lost my job, and I'm mad"
 - In most countries, trade is a small factor in job creation and destruction [in US, replace "small" with "tiny"]

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Fallacy #2

- Our tariffs are good for us – they protect our industry
- Why a fallacy?
 - Inefficient production
 - Higher prices for consumers
 - Note: still a fallacy if other countries have tariffs [they can make their own mistakes]

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Fallacy #3

- We should subsidize local producers to help them compete
- Why a fallacy?
 - Costs us money
 - Encourages inefficient production

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Fallacy #4

- High-wage countries can't compete
- Why a fallacy?
 - Competitiveness depends on relation between wages and productivity
 - If wages reflect productivity, high wages are a sign of strength, not weakness

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Fallacy #5

- Free trade creates trade deficits
- Why a fallacy?
 - My deficit is someone else's surplus: can't cause deficits all over
 - Trade deficits are really about capital flows

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If trade is so great...

... why are so many people against it?

- Lou Dobbs
 - The shipment of American jobs to cheap foreign labor markets threatens not only millions of workers and their families, but also the American way of life. Corporate America isn't doing all this alone: Big business and Washington are in cahoots, trading our nation's livelihood for short-term gain.

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... why are so many people against it?

- Global Trade Watch
 - The data are in and they clearly show the damage NAFTA has wrought for millions of people in the US, Mexico, and Canada. As we predicted: a race-to-the-bottom in wages, destruction of hundreds of thousands of good US jobs, undermining of democratic control of domestic policy-making, and threats to health, environmental and food safety standards.

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... why are so many people against it?

- AFL-CIO
 - America's policies do little or nothing to safeguard the rights of workers and the environment here and around the world. They fuel a race to the bottom in living standards. That needs to change. We need policies that support good jobs at home and sustainable development abroad. We need to blatant abuses by countries that stack the decks against US workers.

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... why are so many people against it?

- Dave Barry
- Q: You are a large US car maker. You have been losing sales to Japanese producers, whose cars tend to be extremely well made. You should:
 - a) Have Congress restrict Japanese imports
 - b) Have Congress give you money
 - c) Have Congress allow you to kidnap consumers' children unless they buy your cars.
 - d) Remind everyone about Pearl Harbor.
- A: These are all pretty good.

Source: Dave Barry, "Claw your way to the top"

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... why are so many people against it?

- Political process
 - Democratic leaders often protect their supporters
 - Dictators often protect their friends
- Trade adds
 - Protect us from foreign competitors who don't vote
- Gains outweigh losses, but
 - Losses clear and concentrated (5k people lose 100k jobs)
 - Gains fuzzy and dispersed (300m people gain \$10 each)

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Offshoring

Offshoring

- Terminology
 - Outsourcing: buy something you previously produced yourself
 - Offshoring: usually means imports of services [eg, business process outsourcing]
- Technology makes this much easier than before
 - Internet connections, Skype, etc
 - Communication virtually free to anywhere
- Feels more threatening to many of us

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Krugman's example

- You work for Deutsche Bank, make \$100k/year
- They fire you, pay 20k to Indian producer, save 80k
- Who gains? Who loses?

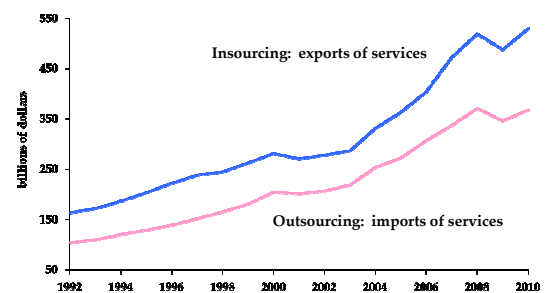
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Krugman's example, cont'd

- You work for Deutsche Bank, make \$100k/year
- You pay 20k to Indian producer, pocket 80k
- Who gains? Who loses?
- Someone did this:
<http://www.theglobeandmail.com/technology/how-a-model-employee-got-away-with-outsourcing-his-software-job-to-china/article7409256>

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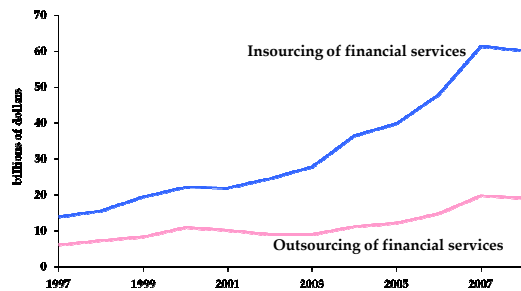
US trade in services



Source: BEA, International data, table 3a.

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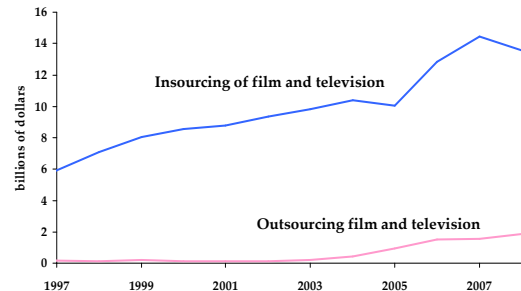
US trade in services



Source: BEA, International data, table 3a.

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US trade in services



Source: BEA, International data, table 3a.

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Trade restrictions

Managing markets

- There are times markets don't work well
- But hard-earned experience makes us modest about chances of doing better
- See for yourself...

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Ways to restrict trade

- Tariffs limited by treaty, so use
 - Subsidies to local producers
 - Health and safety regulations
 - Quotas
 - Antidumping suits

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Subsidies to sugar producers

- US policy
 - Guaranteed prices for sugar (18-22 cents per lb.)
 - World price for sugar around 9 cents per lb.
 - Estimated cost: \$2.15b over 10 years
- Who gains?
 - 5,980 sugar and sugar beet farms in 2002 census (600k per!)
- Who loses?
 - Taxpayers
 - Consumers: they pay \$1.9b over world price
- Who's the pirate?

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Subsidies to sugar producers, cont'd

- Why does this work?
- Accidental byproducts
 - High-fructose corn syrup
 - Ethanol

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Subsidies to cotton producers

- US policy
 - Agreed to \$1.6b cap in 1995
 - Current subsidy: >\$2b
 - Brazil argued they violate trade rules
 - WTO agreed in 2004
 - Resolution: we pay Brazilian producers as well as our own
- Who gains? Who loses? Who's the pirate?
- [Planet Money podcast](#) (search: "cotton wars")

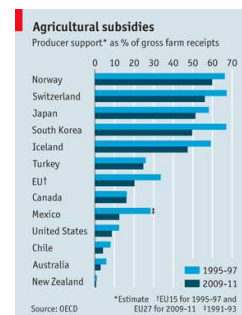
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Norway

- Smuggling milk and butter into Norway

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Agricultural subsidies



Source: OECD numbers, reported in The Economist.

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Health and safety

- EU bans hormone-treated meat in 1989
- US bans unpasteurized cheese
 - Cheese must be made with pasteurized milk or aged for 60 days
- Ban on genetically-modified rice
 - Only approved for consumption in US, Canada

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Health and safety

- UPS enters Mexico in 1992 for post-NAFTA boom
- Mexicans protect locals (big trucks "unsafe" – for UPS)
- NAFTA arbitration panel sides with UPS – 3+ times
- UPS asks Clinton for help
- Clinton drags feet when Teamsters protest Mexican truckers entering US ("unsafe"!)
- Mexico drags its feet in return
- 20 years later little has changed

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Quotas

- Limit quantity of a good that can be imported
- Voluntary export restraints: quotas imposed by the exporting country (“voluntarily”!)

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Voluntary export restraints

- In 1980s, US “persuaded” Japan to limit car exports
- Similar to a tariff, but
 - “Voluntary”
 - US collected no revenue
- Limits on **numbers** benefited Japanese producers
 - Eliminated competition among them, prices rose
 - Instigated increase in quality
- What were we thinking?

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Dumping

- Dumping
 - When foreign firms use “predatory” pricing
 - Predatory means price below domestic price or estimated cost
 - Domestic firms may file for protection
 - **Must show foreign firms pricing “unfairly” and “injury to domestic firms”**
 - If so, compensating tariff imposed
- Who wins? Who loses? Who’s the pirate?
- How can we tell dumping from competition?
- What does “unfair” mean?

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Chinese furniture dumping

- Stickley builds huge plant in Vietnam
- Files dumping suit against Chinese producers
- US producers divided
 - Retailers against suit, producers in favor
 - Production leaves US anyway
- Chinese firms hire US lawyers, settle
- China passes dumping law, files suits against Americans
- Who gains? Who loses? Who’s the pirate?

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Save US wire hangers!!

- One remaining US-based hanger producer...
- ... files petition against Chinese producers
- US’s International Trade Commission investigates
- Finds: hangers sold below “fair market value”
- Duties assessed range from 33% to 165%
- Hanger prices double in US market
- Who wins? Who loses? Who’s the pirate?

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Save hangers, cont’d

- Who wins?
 - Domestic hanger producers
 - Wisconsin hanger plant reopens
- Who loses?
 - Dry cleaners
 - People who use dry cleaners
- Unintended consequence
 - Hanger recycling

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World Trade Organization

- 1947 General Agreement on Trade and Tariffs
 - 23 original signers
 - Major cornerstone: nondiscrimination
- 1995 GATT becomes the World Trade Organization
 - Enforcement mechanism: none
 - Exemptions: health and safety arguments
- Current issues
 - Tariffs on non-agriculture very low
 - General Agreement on Trade in Services (in the works)
 - Trade Related Aspects of Intellectual Property Rights (in the works)

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WTO principles

- Tariff “binding”
 - A negotiated tariff is bound: it cannot be increased in the future
 - Nondiscrimination
- Member grant each other *most favored nation* status ... now called *normal trade relations* (NTR)
 - Tariff rates the same for all
 - Exception: regional trade agreements (eg, NAFTA)
 - Exception: “escape clauses” (China and tires)

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What have we learned?

- Strong arguments for trade
 - And open competitive markets in general
- But political opposition is a fact of life
- Many ways to protect friends and locals
 - Tariffs, quotas, dumping, health and safety, ...
- International business remains a challenge

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For the ride home

- Foreign “sweatshops”
 - Wages low by US standards, but higher than local alternatives
 - Working conditions poor by US standards
- What are the issues?
 - Is this “fair”?
 - Who should decide, us or them?
 - Should we apply pressure?
 - Other options?

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