



MERCANTILISM

- Dominant theory of political economy from the beginning of European exploration and commerce in the 1500s until the Industrial Revolution (approx. 1760 – 1840)
- Viewed trade as a **zero-sum game**, where gains from one country would be balanced by losses in another country
- Trade balances were heavily scrutinized
 - Accumulation of monetary reserves (sometimes called bullionism)
Remember that in the international economy before fiat money and floating exchange rates that precious metals as official reserves were **extremely** important
 - Non-tariff trade barriers were erected
 - Emphasis on finished goods manufacturing
 - Aggressive colonialism
 - War to protect trade interests

ADAM SMITH (1723 – 1790)

At this point in history, economics had not been separated from the discipline of social philosophy, which explains this enlightened Scottish thinker's first seminal work: *The Theory of Moral Sentiments* (1759).

- 1776 – *An Inquiry Into the Nature and Causes of the Wealth of Nations*
 - often cited as the first work of economics
 - Laid the foundation for all free market theories by arguing that free trade is natural: people have a "propensity" to trade or "to truck and barter"
 - Argues against mercantilists
 - Trade is a positive sum game (both partners can benefit)
 - Rising productivity (via division of labor), not accumulation of foreign reserves through trade or current account surpluses, reflects a nation's wealth
 - Economies should allocate resources to most productive uses (specialize) rather than just focusing on the exploitation of every available resource
 - Specialization and efficiency (division of labor) is supported by greater trade, not less trade



HOW DOES SMITH PROVE FREE TRADE IS BETTER?

Trade promotes specialization, allowing for greater efficiency, thus freeing labor and other resources for more productive uses.

Hence, free trade "frees" the economy to produce more without exerting any extra effort.

- Mode of Argument
 - Used labor theory of value to measure productivity
 - Two country, two commodity framework
 - One country may be more productive in one good i.e. take less labor to produce a good
 - Another country has the advantage in another good, where it takes less labor
- Labor theory of value: In the absence of international trade, the relative prices of goods are equal to their relative unit labor requirements.

A SIMPLE EXAMPLE OF ABSOLUTE ADVANTAGE

Number of labor hours required to produce one unit of output:

	<u>USA</u>	<u>China</u>
Segway HT (1 HT)	3 hrs	12 hrs
Moped (1 moped)	6 hrs	5 hrs

In this example, the US is better at producing Segways than China is. (3 is less than 12)

China is better at producing mopeds than the US is. (5 is less than 6)

In this situation, the US should produce Segways, China should produce mopeds, and they should trade with each other.



CLASSIC EXAMPLE OF ABSOLUTE ADVANTAGE

Number of labor hours required to produce one unit of output:

	<u>England</u>	<u>Portugal</u>
Wine (1 barrel)	4 hrs	3 hrs
Cloth (1 bolt)	1 hr	2 hrs

In this example, Portugal is better at producing wine than England is. (3 is less than 4)

England is better at producing cloth than Portugal is. (1 is less than 2)

DERIVING COSTS USING LABOR THEORY OF VALUE

	<u>England</u>	<u>Portugal</u>
Wine (1 barrel)	4 hrs	3 hrs
Cloth (1 bolt)	1 hr	2 hrs

England

- 4 hours = 1 barrel of wine or 4 bolts of cloth.
- Producing 1 barrel wine requires giving up 4 bolts cloth.
- Or 1W costs 4C
- Or 1C for $\frac{1}{4}$ W

Portugal

- 3 hours = 1 barrel of wine or 1 $\frac{1}{2}$ bolts of cloth.
- Producing 1 wine requires giving up 1.5 cloth.
- Or 1W costs 1.5C
- Or 1C for $\frac{2}{3}$ W

BASIS FOR TRADE UNDER ABSOLUTE ADVANTAGE

Price Comparison

In England, 1 barrel of wine costs 4 bolts of cloth.

In Portugal, 1 barrel of wine costs 1.5 bolts of cloth.

- Wine is cheaper in Portugal.

In England, 1 bolt of cloth costs 0.25 barrels of wine.

In Portugal, 1 bolt of cloth costs 0.66 barrels of wine.

- Cloth is cheaper in England.

Thus, the two countries agree to exchange goods at:

- $1W = 3C$ (1 barrel Portuguese wine for 3 bolts of English cloth)
- $1C = 0.33 W$ (1 bolt of English cloth for 0.33 barrels of Portuguese wine)

Trade Benefit

England obtains 1 barrel of wine by giving up 3 bolts of cloth instead of 4.

Portugal acquires cloth by giving up only $\frac{1}{4}$ barrel of wine instead of $\frac{2}{3}$.

SUMMARY OF SMITH'S ABSOLUTE ADVANTAGE

- Lower prices (lower opportunity costs) are available internationally.
 - Both countries use less labor.
- Hence, trade is a **positive sum game**.
- Wealth is accumulated through specialization and mutually advantageous trade.

Thus, nations should *specialize* where they have a productivity advantage.

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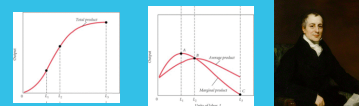
DAVID RICARDO (1772 – 1823)

Massively successful British speculator, although he was a Jew of Portuguese descent born in Holland, became an influential theorist after having amassed a fortune large enough (largely through insider trading and manipulation of the markets during 1815's Battle of Waterloo) to retire and buy a seat in the UK Parliament.

- 1817 – *On the Principles of Political Economy and Taxation*

Theories laid the foundation for today's globalization and international free trade.

- Comparative advantage
- Law of diminishing returns – further investment does not result in a corresponding linear increase in production (the same with labor)
- Ricardian equivalence – Although he did not advocate this position, he argued that whether a government paid for its projects with debt or tax revenue ultimately did not matter



THE RICARDIAN MODEL A.K.A. COMPARATIVE ADVANTAGE

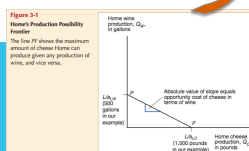
In contrast to Adam Smith's theory of absolute advantage, Ricardian theory postulates that free trade benefits countries even if their productivity in a particular product is lower than their trading partner. What matters is not the efficiency of production vis-à-vis their trading partner but rather vis-à-vis other domestic sectors.

We can think of this model as that which evolves toward the minimization of opportunity costs across many trade partners.

Opportunity cost: the trade-offs made when choosing to produce one good over another, or to select one project over another. Can be quantified by a **production possibility frontier**.

This deductive logic became the basis of free-trade economic reform (the first instance of which was the overhaul of the Corn Laws) in Great Britain, which led to the unilateral lowering of agricultural tariffs, reducing poverty and hunger for the lower class and somewhat counterintuitively increasing profits for the resistant landlords.

Great Britain spreads Ricardo's argument while it ascends as world economic power.



COMPARATIVE ADVANTAGE ARGUMENT

Assumptions

- Factors of production are considered immobile across countries
- No movement of capital (FDI) and labor migration
- 19th century assumption

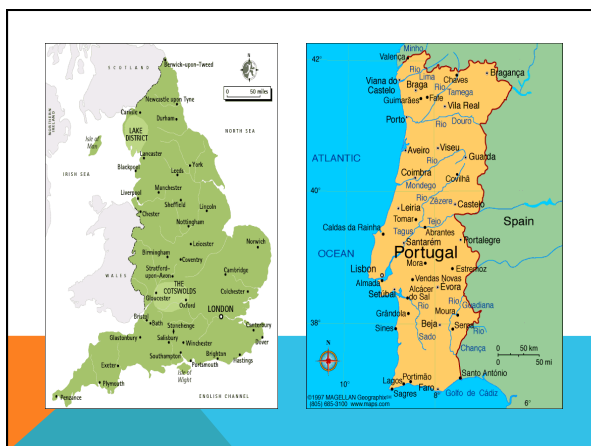
Case

Look at a situation where one country is more productive than trading partners with respect to all goods. Ricardo's great insight was that there are *still* grounds for trade!

A nation gains from trade by exporting goods or services where, from a domestic viewpoint, it has the *greatest* productivity advantage and imports where it has less advantage. Nations, like people, should specialize in what they do best even if they cannot do that better than other countries.

Comparative means relative as opposed to absolute.

Like Smith, Ricardo also uses labor theory of value to prove his theory, as we see next.



AN EXAMPLE OF COMPARATIVE ADVANTAGE

Number of labor hours required to produce one unit of output:

	<u>Portugal</u>	<u>England</u>
Cloth (1 bolt)	1 hr	3 hrs
Wine (1 barrel)	2 hrs	12 hrs

In this case, Portugal produces cloth *and* wine more efficiently than England does.

Thus, Portugal has an *absolute advantage* in both goods.

Clearly, Portugal's advantage in producing wine is *greater* than its advantage in producing cloth, though. What is the basis for trade?

Again, we can state this in terms of prices using the labor theory of value.

DERIVING COSTS: LABOR THEORY OF VALUE

Number of labor hours required to produce one unit of output:

	<u>Portugal</u>	<u>England</u>
Cloth (per bolt)	1 hour	3 hours
Wine (per barrel)	2 hours	12 hours

Price of wine (= opportunity cost of wine)

- Portugal: 2 bolts/barrel
- England: 4 bolts/barrel

• **Wine is cheaper in Portugal.**

Price of cloth (= opportunity cost of cloth) is the inverse

- Portugal: 0.5 barrel/bolt
- England: 0.25 barrel/bolt

• **Cloth is cheaper in England.**

CLOTH AND WINE ARBITRAGE

To observe comparative advantage in practice:

Portugal can produce both cloth and wine more efficiently than England can, but its wine will fetch more cloth in England than in Portugal.

- A merchant from Portugal wants to exchange his barrel of wine for cloth.
- He can exchange it for 2 bolts of cloth in Portugal or 4 bolts of cloth in England.
- He chooses, of course, to exchange his barrel of wine for the 4 bolts of cloth in England.

The **opportunity cost** of producing cloth is higher in Portugal than in England, even though Portugal produces both cloth and wine more efficiently than England does.

We see, therefore, that Portugal should **specialize** in the production of wine and should import cloth from England.

DOES THE RICARDIAN MODEL REPRESENT REALITY?

As in his recognition of the Ricardian equivalence, Ricardo readily acknowledged that his theory, by its very nature, had its limitations.

There are many assumptions:

- Only two countries and two products
- No transportation costs
- Constant returns to scale
- Immobile factors of production **many argue that this is its main weakness.*

Ricardian vice: using abstract models with mathematical formulas based on oversimplification is a term that describes economists, even today, that make and test theories that disregard the complexities of reality in favor of their mathematical elegance (over their practical applications)

In spite of these assumptions, the comparative advantage model is very influential. It is still widely regarded as the main argument in favor of free trade and specialization.

- Ricardo assumed that marginal opportunity costs were constant, i.e. that for every bolt of cloth Portugal stopped producing, they could produce 1/2 barrel of wine.
- In reality, conversions may be more difficult (because of land, infrastructure, composition of the local labor force, etc.).
- This difference in the ease with which resources can be re-allocated prevents complete specialization in the real world.

SPECIALIZATION AND THE REAL WORLD

Should nations specialize where there is a comparative advantage?

- Static concept
- How can we know if the comparative advantage arises naturally or is a created advantage?

Real world of 19th century indicates created advantage:

Wine

England sets up Portugal to sell wine for British cloth as a substitute for French wine.

Opium War

England sets up India to produce opium to exchange for Chinese tea.



THOMAS ROBERT MALTHUS (1766-1834)

Whereas mercantilism emphasized an ever-expanding population to not only harvest more and more raw materials but also to transform them into more and more finished goods, Englishman T. R. Malthus was among the first theorists to warn of the dangers of a perpetually rising population.

- 1798 – *An Essay on the Principle of Population*
 - Economic cycle ebbs and flows with the condition of the lower class worker.
 - When population rises faster than food production, real wages fall, condemning the lower class to subsistence-level living while enriching the owners of capital, who deploy their increasing earnings back into their business until the scarcity of labor drives up real wages once again.
 - “Positive” checks – hunger, disease, war
 - “Preventive” checks – limited birthrates and reduced marriages
 - Criticized for this eugenics approach – associated high birth rates with immorality intimating that the poor may even deserve their wretched fate, believed that the Earth had a certain “carrying capacity” that if exceeded would lead to catastrophe.

His work would have wide ranging influence on his contemporary Ricardo (+), as well as later thinkers Darwin (+), Marx and Keynes (-).



GAINS FROM TRADE

In order to justify international trade, we must first establish that the exchange is almost always to their mutual benefit i.e. trade is a positive sum game.

- Indirect method of production => increases efficiency via large-scale production
- Consumption patterns can be tailored to best fit the population, otherwise consumption possibilities are the same as production possibilities

Once we agree that there are indeed gains from trade, we must then ask: How much?

- Demand and supply
- Cost differences
- Factor availability
- Country size
- Trade terms
- Production efficiency

International migration and international borrowing are also forms of international trade that demonstrate the justifications for the gains from trade in unique ways. How exactly?

JOHN STUART MILL (1806 – 1873)

This Englishman's *Principles* was the default textbook on economics at Oxford University until 1919. His father was a close friend of Ricardo. At this point in history, there were still not pure economists. Thus, his work covered the nature of politics and society as well. As a utilitarian that leaned socialist in his later years, his views were pragmatic and changed over time. He even served in Parliament, was an early feminist, and Malthusian proponent of birth control.

- **1848 – *Principles of Population Economy***

- Largely accepted Ricardo's theory of free markets and comparative advantage, but extended it by claiming that such a system benefited the countries with the most **elastic demand** for other countries' goods
- Regulation of the economy OK if it provides for the "greater good"
- Flat tax – because a progressive tax is "a mild form of robbery" – but believed such a policy should be tempered by an aggressive inheritance tax
- "Stationary state" – Advocated the absence of growth over environmental destruction



JOHN MAYNARD KEYNES (1883 – 1946)

In his youth, he was a homosexual scholar – the only economist in the famed London literary/art clique the Bloomsbury Group (Virginia Woolf, Clive Bell, Roger Fry...). Later, he would author the seminal book on macroeconomics, the tenets of which led the US out of the Great Depression and, later, the Great Recession.

- **1936 – *The General Theory of Employment, Interest, and Money***

- Aggregate demand drives the economy, as opposed to classical economists' view that supply creates its own demand
- Multiplier effect – Government should borrow and spend money to counter economic malaise, creating a positive feedback loop that would resound through the economy
- Animal spirits – confidence and future expectations determine the future behavior of businessman and other economic agents
- Savings bad, spending good
- *Bancor* – his proposed centrally managed global reserve currency



FISCAL V. MONETARY POLICY

- **Fiscal Policy.** Government spending and taxation that **directly** affects the demand for goods and services in an economy, hence **"demand-side management."**
 - Slow-moving due to government inefficiency and inability to compromise.
 - Inflexible because much government spending is determined by formula (Medicare, Social Security) rather than policy formulation.
 - Budget deficits, on the whole, spur demand.
- **Monetary Policy.** Manipulation of interest rates and money supply that **indirectly** affects demand in an economy. Another form of **demand-side management**.
 - Easy to implement via the Federal Reserve System.
 - Open market operation. The Fed simply just writes itself a check and **poof!** new money is created. No need to negotiate with politicians.
 - Efficient in the short run, but not necessarily in the long run.
- **Policy tools:**
 - Fed funds rate target, discount rate, reserve requirement.

Hello, I'm John Maynard Keynes.



Figure 2-2

The Size of European Economies, and the Value of Their Trade with the United States

Source: U.S. Department of Commerce, European Commission.

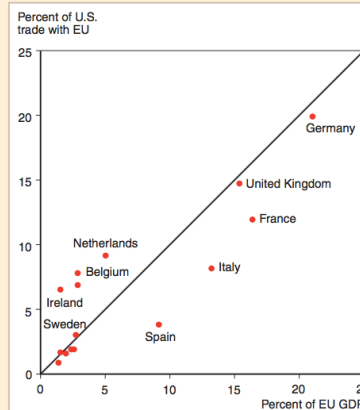
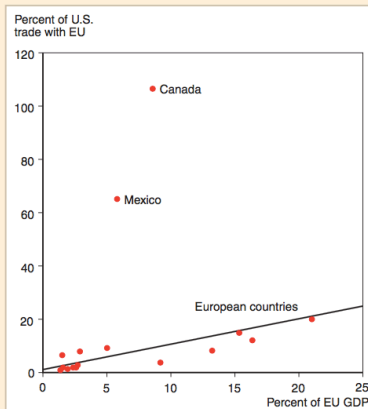


Figure 2-3**Economic Size and Trade with the United States**

The United States does markedly more trade with its neighbors than it does with European economies of the same size.

Source: U.S. Department of Commerce, European Commission.

**GRAVITY MODEL**

The *gravity model* is the theory that the value of trade between any two countries is proportional, all other factors being equal, to the *product* of the two countries' GDPs, diminishing with the distance between the two countries.

- Size really matters!
- Distance matters, too.
- Currency is also a contributing factor.

In practice, countries spend much or most of their income at home. The United States and the European Union each account for about 25 percent of the world's GDP, but each attracts only about 2 percent of the other's spending.

Takeways

- The model helps us to identify anomalies in trade. For example, why do Ireland, the Netherlands, and Belgium enjoy a disproportionate trade with the US?
- Estimates say that a 1 percent increase in the distance between two countries is associated with a fall of 0.7 to 1 percent in the trade between those countries.

TRADE MATH

Gross Domestic Product (Y)

$$Y = C + I + G + NX \text{ where}$$

C = Consumption

I = Investment

G = Government Spending

NX = Net exports (X - IM = exports - imports)

Gravity Model

$$T = (Y_a * Y_b) / D_{ab} \text{ where}$$

T = trade

D = distance

3RD WORLD MANUFACTURING

The use of developing countries (3rd World) by developed countries (1st World) has evolved in the past 50 years, largely due to technology and globalization.

1970s - 3rd World mainly exported primary products (an extension of colonial framework)

Now, 90% of exports to China consists of manufactured goods.

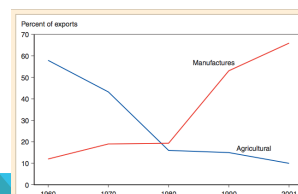
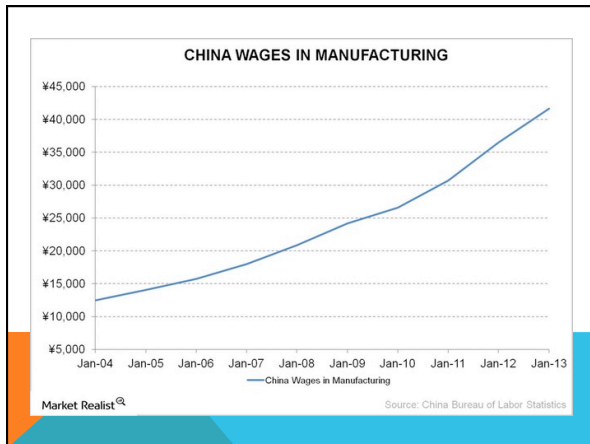
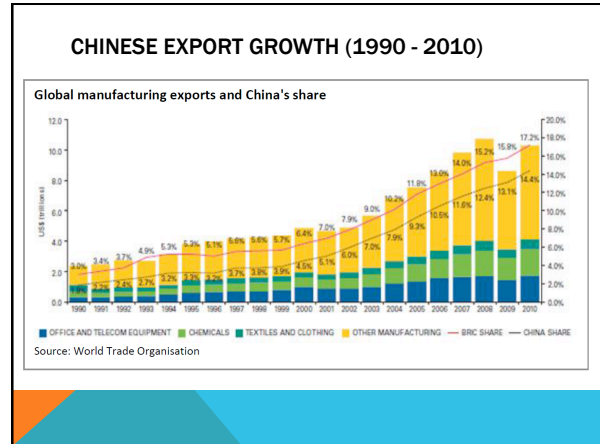
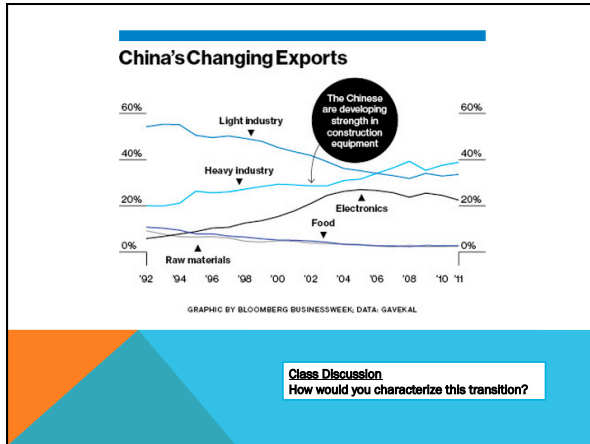


Figure 2-6
The Changing Composition of Developing-Country Exports
Over the past 50 years, the exports of developing countries have shifted toward manufactures.

Source: United Nations Council on Trade and Development.



RELATIVE WAGES

THEY TOOK 'ER JOBS!

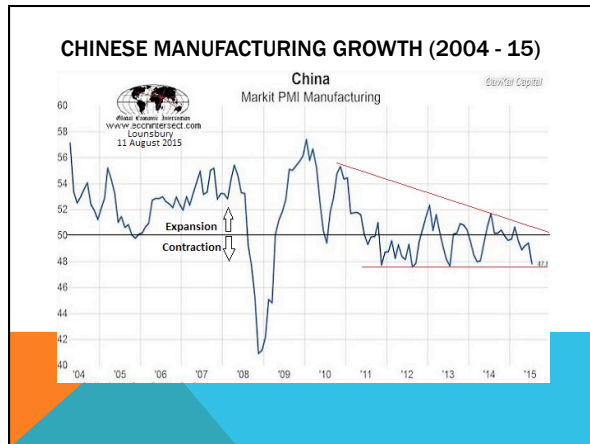
OF COURSE, FOREIGNERS STEAL YOUR JOB

BUT MAYBE, IF SOMEONE WITHOUT CONTACTS, MONEY OR SPEAKING THE LANGUAGE STEALS YOUR JOB, YOU'RE SHIT

RAISE THE MINIMUM WAGE! 15 NOW

WHY NOT JUST LEGISLATE \$ 50 PER HOUR MINIMUM WAGE ?

Purchasing Power Parity (PPP) is the means by which we solve this debate in finance.



SERVICE OFFSHORING (SERVICE OUTSOURCING)

In the recent past, politicians often decry the loss of jobs in their district due to offshoring. Most of the jobs that have left this country in this manner are manufacturing jobs.

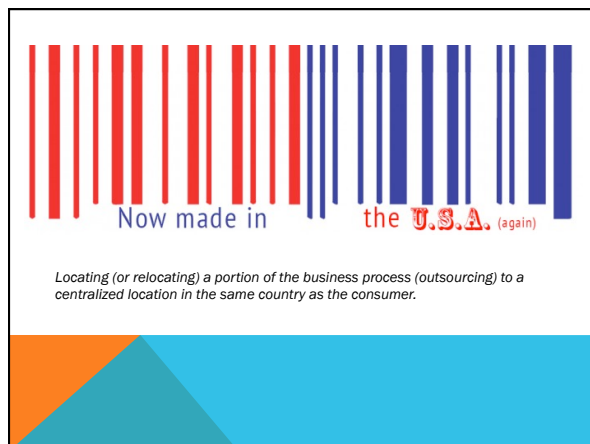
However, 60 percent of total U.S. employment consists of jobs that must be done close to the customer, making them nontradable. But the 40 percent of employment that is in tradable activities includes more service than manufacturing jobs.

Alan Blinder in a 2006 *Foreign Affairs* article predicted this inevitability:

- "Constant improvements in technology and global communications virtually guarantee that the future will bring much more offshoring of 'impersonal services'... We should not view the coming wave of offshoring as an impending catastrophe. Nor should we try to stop it. The normal gains from trade mean that the world as a whole cannot lose from increases in productivity, and the United States and other industrial countries have not only weathered but also benefited from comparable changes in the past."

How accurate do you think Blinder's prediction was?

Class Discussion
What is the opposite of offshoring?



ONSHORING



50 Haier Boulevard, Camden, South Carolina

