The Case for Free Trade: 2

Theories of Free Trade

Sergio Béjar

POLS155, Lecture 4

In this lecture we will learn about:

The Comparative Advantage Model (David Ricardo) and Heckscher-Ohlin Models

Comparative Advantage

Let's go to Ricardo's famous model on the benefits of free trade.

- Assume only two countries: England and Spain.
- Assume just two goods (of identical quality): cloth and wine

For simplicity's sake, let's reduce measurements to work-hours for one "unit."

Country	**Work-Hours for Cloth**	**Work-Hours for Wine**
England	100	120
Spain	90	80

Table: Hours of Work Necessary to Produce One Unit (Ricardo's Example)

Absolute and Comparative Advantage

Notice: Spain is the more efficient country.

- It requires fewer hours to produce cloth (90 to 100)
- It requires fewer hours to produce wine (80 to 120)

We say Spain has an **absolute advantage** over England in the production of both.

Absolute and Comparative Advantage

However, England has unique advantage in the production of cloth.

- 100 work-hours gets England a unit of cloth of 5/6ths a unit of wine.
- 90 work-hours gets Spain a unit of cloth and 1 and 1/8ths a unit of wine.

Spain has an absolute advantage (i.e. fewer work-hours) but England has a **comparative advantage** (i.e. a lower opportunity cost).

Why Not Specialize and Trade?

Under **autarky** (i.e. absence of trade), 220 (170) total work-hours gets England (Spain) a unit of each. However:

- Spain is more efficient at producing wine than cloth.
- England is more efficient at producing cloth than wine.

If they were to specialize in their comparative advantages:

- Spain could produce 2.125 units of wine.
- England could produce 2.2 units of cloth.

If they were to liberalize their trade, both would produce and consume more of both than they could under autarky.

A Difficult "Sell"

Economic logic stood at odds with mercantilist policies.

- Government policies that reduce imports compromise efficiency.
- Exports are fine but they're not the only metric for evaluating trade.

Indeed: *imports are the gains from trade while exports are its costs.*

- Imports allow countries to focus production on its strengths.
- *Remember this the next time you hear some politician talk about the "trade deficit."*

Heckscher-Ohlin Trade Theory

A country will export goods that make intensive use of the factors of production in which it is well-endowed. Factors include:

- Land (essential to agriculture)
- Labor (usually: unskilled labor)
- Capital (referring to machinery and financial assets to operate machinery)
- Human capital (skilled labor)

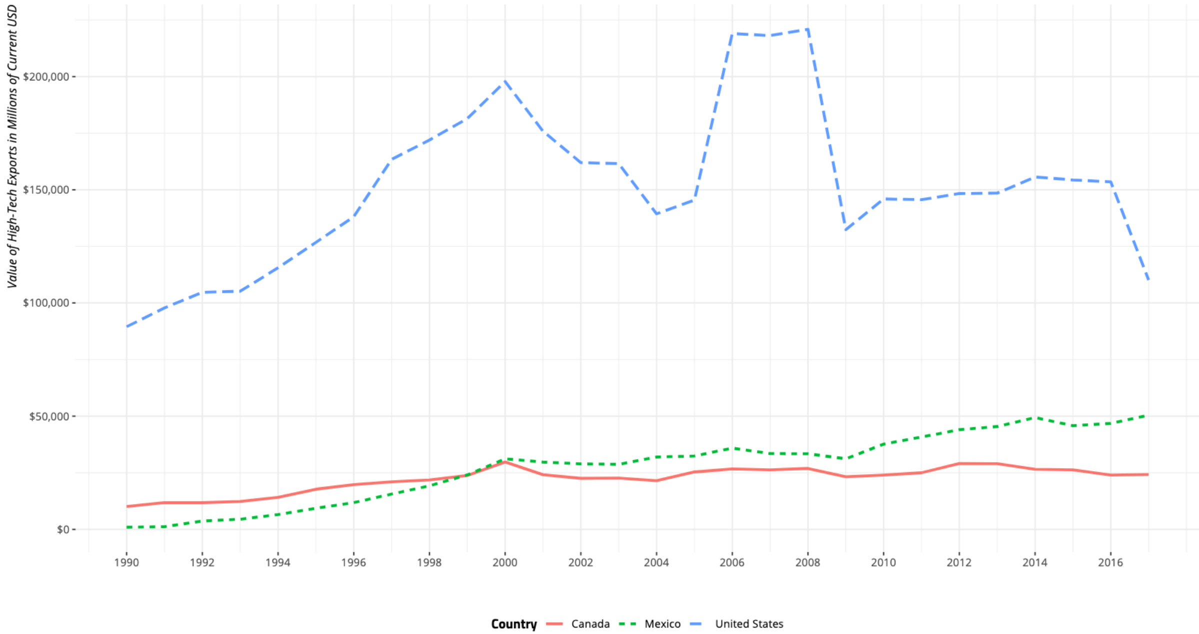
Heckscher-Ohlin Trade Theory

Example of countries exporting what they're good at:

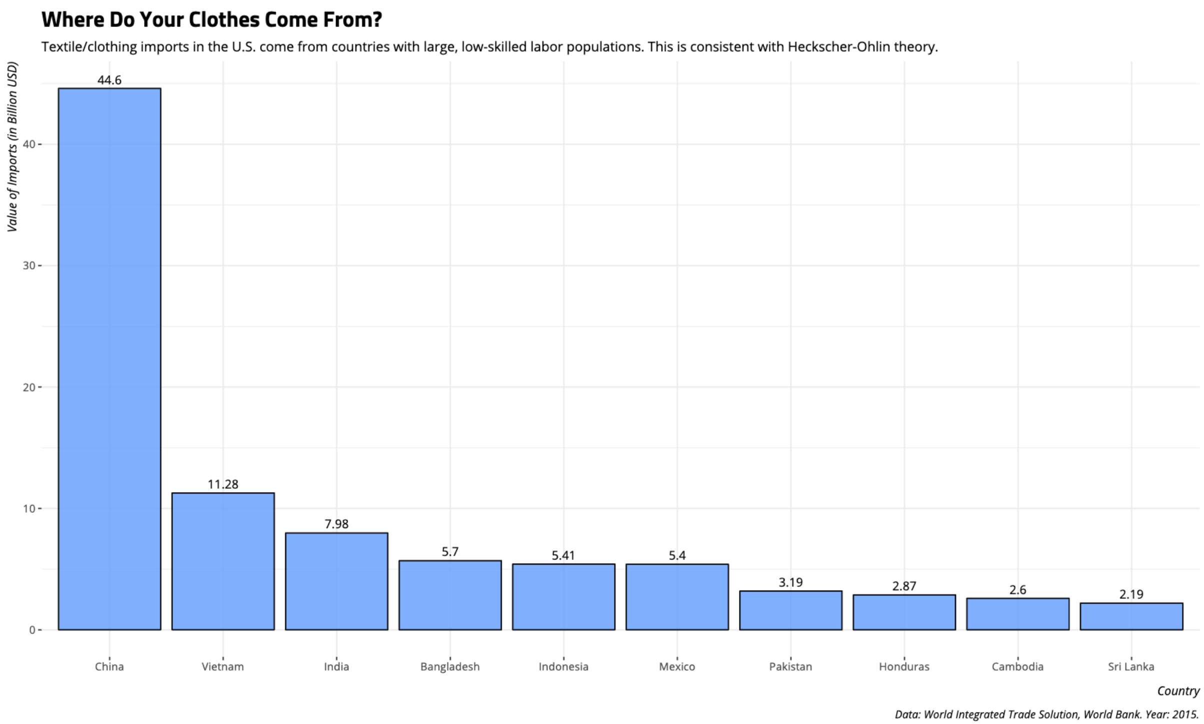
- 19th century U.S. (tobacco, cotton, wheat)
- Current U.S. (capital-intensive machinery)
- Bangladesh (huge low-skilled labor population)

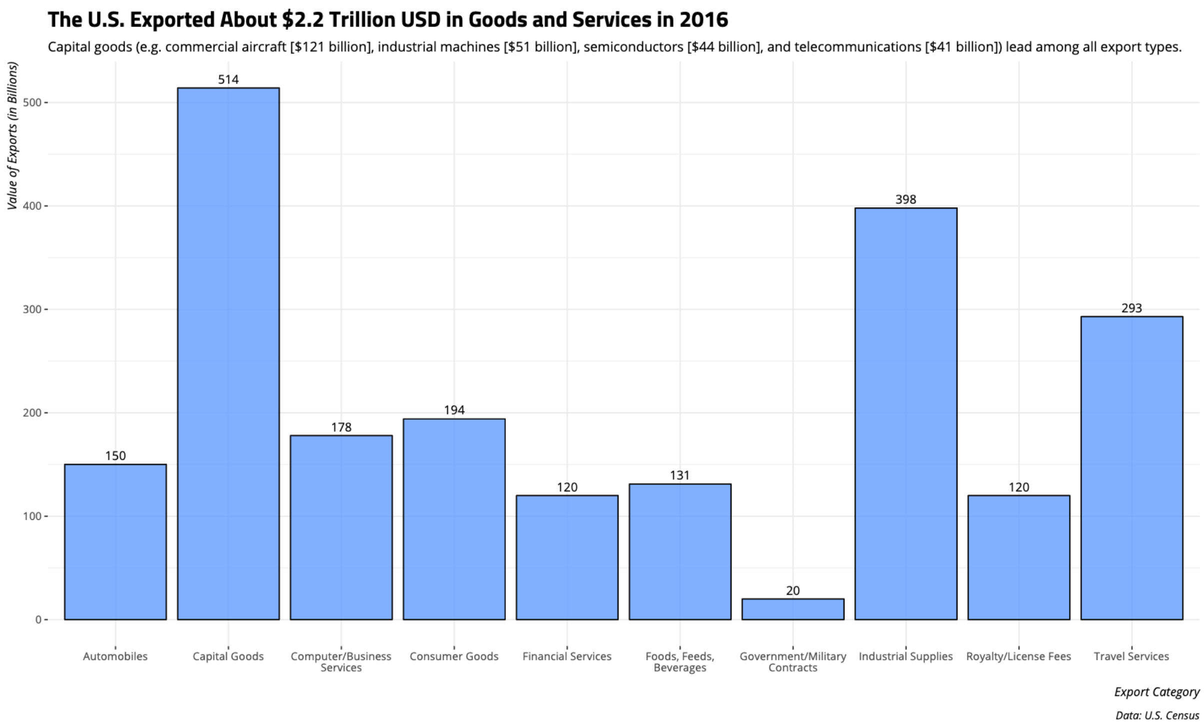
The U.S. Exports About Three Times as Much in High-Technology Goods than Canada and Mexico

This would square with casual observations that the U.S. is better endowed in capital than its NAFTA neighbors.



Data: United Nations, Comtrade Data via World Bank Development Indicators


Where Do Your Clothes Come From?
Textile/clothing imports in the U.S. come from countries with large, low-skilled labor populations. This is consistent with Heckscher-Ohlin theory.
Value of Imports (in Billion USD)
44.6
11.28
7.98
5.7
5.41
5.4
3.19
2.87
2.6
2.19
0
10
20
30
40
China
Vietnam
India
Bangladesh
Indonesia
Mexico
Pakistan
Honduras
Cambodia
Sri Lanka
Country
Data: World Integrated Trade Solution, World Bank. Year: 2015.


The U.S. Exported About $2.2 Trillion USD in Goods and Services in 2016
Capital goods (e.g. commercial aircraft [$121 billion], industrial machines [$51 billion], semiconductors [$44 billion], and telecommunications [$41 billion]) lead among all export types.
Value of Exports (in Billions)
500
400
300
200
100
0
150
514
178
194
120
131
20
398
120
293
Automobiles
Capital Goods
Computer/Business Services
Consumer Goods
Financial Services
Foods, Feeds, Beverages
Government/Military Contracts
Industrial Supplies
Royalty/License Fees
Travel Services
Export Category
Data: U.S. Census

The End