

International Economics

Ch. 2

The Law of Comparative Advantage

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Introduction

■ Assume:

1. **Two-nation, two-good** world
2. No international mobility of factors but free mobility within the nation.
3. No trade restrictions
4. No transportation costs
5. Perfect competition in both factor and commodities markets.
6. Labor theory of value.

■ Basic questions:

1. What is the **basis** for trade?
2. What are **gains** from trade?
3. What is the **pattern** of trade?

The Mercantilists' Views on Trade

- Economic philosophy in 17th and 18th centuries.
- Specifically, a group of men (merchants, bankers, government officials, and even philosophers) advocated an economic philosophy known as mercantilism.
- Believe that nation could become rich and powerful only by **exporting more than it imported.**

Mercantilism

- Export surpluses brought inflow of gold and silver.
- (The gold standard: a monetary system where a country's currency or paper money has a value directly linked to gold. With the gold standard, countries agreed to convert paper money into a fixed amount of gold).
- **Trade policy** was to encourage exports and restrict imports.
- One nation gained only at the expense of another. (i.e., trade was a zero-sum game).

Accordingly,

- Mercantilists measured wealth of a nation by stock of precious metals it possessed.
- **Today**, we measure wealth of a nation by its stock of human, man-made and natural resources available for producing goods and services.
 - The greater the stock of resources, the greater the flow of goods and services to satisfy human wants, and the higher the standard of living.

Trade Based on Absolute Advantage: Adam Smith



- Smith started with the simple truth that for **two nations** to **trade** with each other voluntarily, both nations must **gain**.
- If one nation gained nothing or lost, it would simply refuse to trade.

(No gains → no trade)

Thus,

- While the mercantilists believed that one nation could gain only at the expense of another nation and advocated **strict government control** of all economic activity and trade.
- Adam Smith (and the other classical economists who followed him) believed that all nations would gain from free trade and strongly advocated a policy of *laissez-faire* (i.e., as little government interference with the economic system as possible).
- **Free trade** would cause world resources to be utilized most **efficiently** and would **maximize** world **welfare**.

But how does this mutually beneficial trade take place, and from where do these gains from trade come?

- A nation has **absolute advantage** over another nation if it can produce **a commodity more efficiently**.

When one nation has **absolute advantage** in production of a commodity, but an absolute disadvantage with respect to the other nation in a second commodity, both nations can gain by specializing in their absolute advantage good and exchanging part of the output for the commodity of its **absolute disadvantage**.

- By this process,
 - **resources are utilized** in the **most efficient way**
 - and the **output** of both commodities will **rise**.
- This increase in the output of both commodities measures the gains from **specialization** in production available to be divided between the two nations through trade.

Example-1:

- If **Canada** is efficient in growing **wheat**, inefficient in growing **bananas**.
- **Nicaragua** is efficient in growing **bananas**, inefficient in growing **wheat**.
- Canada has absolute advantage in wheat, Nicaragua has absolute advantage in bananas.

Mutually beneficial trade can take place if both countries **specialize in their absolute advantage**.

Example-2:

	U.S.	U.K.
Wheat (bushels/labor hour)	6	1
Cloth (yards/labor hour)	4	5

Q) Determine:

- 1. Basis for trade**
- 2. Patterns of trade**
- 3. Gains from trade**

- ✓ **U.S.** has absolute advantage over U.K. in **wheat**.
- ✓ **U.K.** has absolute advantage over U.S. in **cloth**.

Both nations can gain from **specialization** in production and trade.

Example-3

	U.S.	U.K.
Wheat (bushels/labor hour)	6	1
Cloth (yards/labor hour)	4	2

- ✓ U.S. has absolute advantage over U.K. in wheat.
- ✓ U.S. has absolute advantage over U.K. in cloth.

No basis for trade according to the **absolute advantage law**.

Trade Based on Comparative Advantage: David Ricardo

- In 1817, Ricardo published his *Principles of Political Economy and Taxation*, in which he presented the law of comparative advantage.
- This is one of the most important and still unchallenged laws of economics, with many practical applications.

Law of Comparative Advantage

- Even if **one nation** is **less efficient** than (has absolute disadvantage with respect to) **the other nation** in production of both commodities, there is still **a basis for mutually beneficial trade**.
- The first nation should:
 - 1) **Specialize** in the production and **export** of the commodity in which its **absolute disadvantage** is **smaller** (this is the commodity of its **comparative advantage**)
 - and 2) **Import** the commodity in which its absolute disadvantage is **greater** (this is the commodity of its comparative disadvantage).

Example

	U.S.	U.K.
Wheat (bushels/labor hour)	6	1
Cloth (yards/labor hour)	4	2

- Q) Determine:**
1. **Basis for trade**
 2. **Patterns of trade**
 3. **Gains from trade**
 4. **The range for mutually advantageous trade** (if the two countries are trading according to the following ratios ($6W=6C$), can we consider it the only available rate of exchange?)

- ✓ U.K. has absolute disadvantage^r in both goods.

- ✓ Since U.K. unit of labor is half as productive in cloth but six times less productive in wheat compared to U.S., the **U.K. has a comparative advantage in cloth.**
- ✓ **U.S. has comparative advantage in wheat.**

The range for mutually advantageous trade is:

- Rate of exchange $6W=6C$ isn't the only rate of exchange between the two countries.
 - As the range of mutually advantageous trade between them is: $4C < 6W < 12C$

Why?

- Since the US could exchange $6W$ for $4C$ domestically (in the sense that both require 1 hour to produce), the US would gain if it could exchange $6W$ for more than $4C$ from the UK.
- On the other hand, in the UK $6W = 12C$ (in the sense that both require 6 hours to produce). Anything less than $12C$ that the UK must give up to obtain $6W$ from the US represents a gain from trade for the US.

- The closer the rate of exchange is to $4C = 6W$ (the domestic, or internal, rate in the US, the smaller is the share of the gain going to the US and the larger is the share of the gain going to the UK.
- On the other hand, the closer the rate of exchange is to $6W = 12C$ (the domestic, or internal, rate in the UK), the greater is the gain of the US relative to that of the UK.

For example,

- ✓ If the US exchanged $6W$ for $8C$ with the UK, both nations would gain $4C$, for a total gain of $8C$.
- ✓ If the US could exchange $6W$ for $10C$, it would gain $6C$ and the UK only $2C$

Thank you