Session II
Overview of Trade Theories

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Goals

At the end of this session, you will be able to:

- Know the mercantilist perspectives on international trade.
- Understand the concept of *absolute* and *comparative advantage* and show how they constitute a *basis for trade*.
- Explain why actual trade pattern and flows are not explained by the theory of comparative advantage.
- Know the theoretical propositions of new trade theories.

Mercantilism

Mercantilism (1500-1800) was not a trade theory *per se*, but an economic policy focused on accumulation of wealth in the form of gold and silver bullion for domestic control, investment and international expansion.

How a nation could regulate its domestic and international affairs so as to promote its own interest?

Strong foreign trade: if a country could achieve a favorable trade balance (a surplus of exports over imports), it would realize net payment received from the rest of the world in the form of gold and silver.

Mercantilism (contd...)

To promote a favorable trade balance, the mercantilists advocated government regulation of trade. Tariffs, quotas, and other commercial policies were proposed by the mercantilists to minimize imports in order to protect nations' trade position.

Main implications of mercantilism

- Extensive regulation of imports and exports
- Trade monopolies flourished
- Smuggling flourished
- There were significant incentives for the governments to establish colonial empires.

Mercantilism (contd...)

Concluding notes

David Hume's price-spice-flow doctrine

Static view of the world economy Adam Smith's The Wealth of Nations 1776-international trade permits nations to take advantage of specialization and the division of labor, which increase the general level of productivity within a country and thus increase world output (wealth)

Although the foundation of mercantilism have been refuted, mercantilism is alive today, however, with emphasis on employment rather than holdings of gold and silver.

Absolute advantage

Adam Smith attacked Mercantilism:

- Exploitation of monopoly power
- Trade regulation conferred 'extraordinary privileges'
- No general benefit to the society

But,

Free market, without state regulation, monopoly and privilege, entrepreneurs would be encouraged to behave in a competitive, efficient and dynamic manner.

It induces division of labour and specialization.

Specialization and exchange enable every one to benefit by purchasing goods and services from low cost source of supply.

Absolute advantage (contd…)

- 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 scarcely be folly in that of great kingdom’ Adam Smith (Wealth of Nations)
- Smith claimed that a country should specialize in, and export commodities in which it had an absolute advantage.
- An absolute advantage exists when country could produce a commodity with less labour per unit produced than could its trading partner.
- Similarly, country should import commodities in which it has an absolute disadvantage.
- An absolute disadvantage existed when the country could produce commodity only with more labour per unit produced than could its trading partner.

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Absolute advantage (contd….)

Numerical Example

Gains from trade based on absolute advantage

Country	Wheat	Rice
Production and consumption without trade		
Nepal	10	5
India	2.5	10
Total	12.5	15
Production with specialization		
Nepal	20	0
India	0	20
Total	20	20
Consumption after Nepal trades 6 kg of wheat for 6 kg of Indian rice		
Nepal	14	6
India	6	14
Increase in consumption as a result of specialization and trade		
Nepal	4	1
India	3.5	4

Comparative advantage

Suppose a country has an absolute advantage over its trading partner in respect of *all* commodities. Is there any basis for mutually advantageous trade? Adam Smith thought not.

David Ricardo demonstrated that even if a nation has an absolute cost disadvantage in the production of *both goods* , a basis for mutually beneficial trade may exist.

The less efficient nation should specialize in and export the good in which it is relatively less inefficient (where its absolute disadvantage is least).

The more efficient nation should specialize in and export that good in which it is relatively more efficient (where its absolute advantage is greatest).

This is the essence of theory of comparative advantage.

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Comparative advantage(contd…)

Assumptions

- Perfect competition in factor and product markets
- Constant cost (linear homogeneous product function)
- Zero transport cost
- Labor perfectly mobile domestically but immobile internationally
- Labor theory of value: costs are determined by amount of labor utilized
- Different production functions for the same commodity in different countries

Comparative advantage(contd…)

Numerical example

Gains from trade based on comparative advantage

Country	Wheat	Rice
Production and consumption without trade		
Nepal	10	8
India	3	6
Total	13	14
Production with specialization		
Nepal	16	4
India	0	12
Total	16	16
Consumption after Nepal trades 4 kg of wheat for 4 kg of Indian rice		
Nepal	12	8
India	4	8
Increase in consumption as a result of specialization and trade		
Nepal	2	0
India	1	2

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Comparative advantage(contd…)

Concluding note

Simply put, Ricardo’s principle of comparative advantage maintains that international trade is solely due to international differences in the productivity of labor. The basic prediction of Ricardo’s principle is that countries will tend to export those goods in which their labor productivity is relatively high.

Hecksher-Ohlin model

What is the source or basis of comparative advantage? Eli Heckscher and Bertil Ohlin, two Swedish economists who provided an answer to this question.

According to Heckscher and Ohlin it is because of differences in relative factor endowments between nations.

- Countries have a comparative advantage in commodities which use more of their relatively abundant factor of production. A labor-abundant country will export labour intensive goods. A capital-abundant country will export capital-intensive goods.
- Countries have a comparative disadvantage in commodities which use more of their relatively scarce factor of production. A labor-scarce country will import labor-intensive goods. A capital-scarce country will import capital-intensive goods.

Hecksher-Ohlin model (contd…)

Assumptions

- Perfect competition in factor and product markets
- Constant cost (linear homogeneous product function)
- Zero transport cost
- Labour perfectly mobile domestically but immobile internationally
- Several factors of production. Commodities display different factor intensities
- The same production function for same commodity in different countries

The Heckscher–Ohlin theory tells us that questions about a country's pattern of trade – which goods and services it exports and which goods and services it imports – can be answered in terms of factor endowments.

Hecksher-Ohlin model (contd…)

Some offshoots of H-O Model

- **Factor Price Equalization Theorem**: By redirecting demand away from the scarce resource and toward the abundant resource in each nation; trade leads to factor-price equalization. In each nation, the cheap resource becomes relatively more expensive, and the expensive resource becomes relatively less expensive, until price equalization occurs.
- **Stolper-Samuelson Theorem** : Export of a product that embodies large amounts of a relatively cheap, abundant resource makes this resource more scarce in the domestic market. Thus, the increased demand for the abundant resource results in an increase in its price and an increase in its income. At the same time, the income of the resource used intensively in the import-competing product (the initially scarce resource) decreases as its demand falls.

Review questions

- "It is unlikely that Nepal, a least-developed country, would gain from trade with China because China would have a comparative advantage in all goods." Do you agree? Explain.
- Given two countries, A and B, and two products, X and Y, state whether each of the following statements is true or false, and show why.

a. If Country A has an absolute advantage in X, it must have a comparative advantage in X.

b. If Country A has a comparative advantage in Y, it must have an absolute advantage in Y.

Review questions (contd…)

Producing Aircraft and Garments: Factor Endowment in Nepal and US.

Resource	Nepal	US
Capital	20 machines	1000 machine
Labor	1000 workers	200 workers

What would be the pattern of trade between Nepal and US? Explain.

- How do you explain Nepalese exports and imports of readymade garments?

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Leontief Paradox

Nobel laureate Wasily Leontief attempted to empirically verify H-O theory using data available from the 1947 input-output (I-O) model of the US economy and found that despite being abundant in capital, the US exported more labour-intensive goods and imported more capital-intensive goods.

Reasons for the Leontief paradox

- Natural resources are neglected- Exports may have been natural-resource-intensive rather than capital-intensive.
- Exports are skill-intensive.
- Factor reversals occur.
- Trade policy is responsible for the paradox- labor union.

Linder's theory of overlapping demands

- According to Linder, the factor-endowment theory has considerable explanatory power for trade in primary products (natural resources) and agricultural goods. But it does not explain trade in manufactured goods because the main force influencing manufactured-good trade is domestic demand conditions. Because much of international trade involves manufactured goods, demand conditions play an important role in explaining overall trade patterns.
- Nations with similar per capita incomes will have overlapping demand structures and will likely consume similar types of manufactured goods. Wealthy (industrial) nations are more likely to trade with other wealthy nations, and poor (developing) nations are more likely to trade with other poor nations.

Product life-cycle theory

Product life cycle theory, propounded by Raymond Vernon, focuses on the role of technological innovation as a key determinant of the trade patterns in manufactured products

The following is the product cycle:

- Manufactured good is introduced to home market.
- Domestic industry shows export strength.
- Foreign production begins.
- Domestic industry loses competitive advantage.
- Import competition begins

New trade theory

<u>Relaxation of assumptions</u>

- Increasing return to scale
- Imperfect market
- Product differentiation

Summary

- The theory of trade is the basis of the doctrine of free trade.
- Mercantilist economic thinking was characteristic of Europe up to the seventeenth century. It featured wide-ranging domestic regulations and restrictions on imports and exports.
- Adam Smith, the founder of modern economics, presented a critique of mercantilism, together with the case for free trade based on the principles of absolute advantage.
- David Ricardo recognized that it is relative or comparative advantages which lead to mutually beneficial trade. Comparative advantage applies whenever there are productivity differences between countries.

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Summary (contd…)

- Heckscher and Ohlin believed that the source of comparative advantage is differences in relative factor endowments between countries. Countries export commodities which embody the relatively abundant factor, and import commodities which embody the relatively scarce factor.
- According to the Stolper-Samuelson theorem, increases in income occur for the abundant resource that is used to determine comparative advantage. Conversely, the scarce factor realizes a decrease in income.
- The specific-factors theory analyzes the income distribution effects of trade in the short run when resources are immobile among industries. It concludes that resources specific to export industries tend to gain as a result of trade.

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Summary (contd…)

- Contrary to the predictions of the factor endowment model, the empirical tests of Wassily Leontief demonstrated that for the United States exports are labor intensive and import competing goods are capital intensive. His findings became known as the Leontief paradox.
- Staffan Linder offers two explanations for world trade patterns. Trade in primary products and agricultural goods conforms well to the factor endowment theory. But trade in manufactured goods is best explained by overlapping demand structures among nations. For manufactured goods, the basis for trade is stronger when the structure of demand in the two nations is more similar; that is, when the nations' per capita incomes are similar.

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Summary (contd…)

- One dynamic theory of international trade is the product life cycle theory. This theory views a variety of manufactured goods as going through a trade cycle, during which a nation initially is an exporter, then loses its export markets, and finally becomes an importer of the product. Empirical studies have demonstrated that trade cycles do exist for manufactured goods at some times.

Review questions

Based on the trade theories discussed, explain Nepal's trade pattern:

- Nepal's import of petroleum products
- Nepal's export of lentils
- Nepal's export of wai wai noodles and import of thai noodles
- Nepal's import of iPad and mobile phone
- Potentials of Nepal agriculture product
- Nepal importing simultaneously car from India, Japan, Korea and Germany

Should industrial policy be linked with trade policy? Explain.

Thank you