CHAPTER 5
INTERNATIONAL TRADE

LEARNING OBJECTIVES:
1. Describe the relation between international trade volume and world output, and identify overall trade patterns.
2. Describe mercantilism, and explain its impact on the world powers and their colonies.
3. Explain absolute advantage and comparative advantage and identify their differences.
4. Explain the factor proportions and international product life cycle theories.
5. Explain the new trade and national competitive advantage theories.

CHAPTER OUTLINE:

Introduction
Overview of International Trade
Benefits of International Trade
Volume of International Trade
Trade and World Output
International Trade Patterns
Who Trades with Whom?
Trade Dependence and Independence
Effect on Developing and Transition Nations
Dangers of Trade Dependency
Balance Between Dependence and Independence
Theories of International Trade
Mercantilism
How Mercantilism Worked
Trade Surpluses
Government Intervention
Colonization
Flaws of Mercantilism
Absolute Advantage
Case: Riceland and Tealand
Gains from Specialization and Trade
Comparative Advantage
Gains from Specialization and Trade
Assumptions and Limitations
Factor Proportions Theory
Labor Versus Land and Capital Equipment
Evidence on Factor Proportions Theory: The Leontief Paradox
International Product Life Cycle
Stages of the Product Life Cycle
Limitations of the Theory
New Trade Theory
First-Mover Advantage
National Competitive Advantage
Factor Conditions
Advanced Factors
Demand Conditions
A comprehensive set of specially designed PowerPoint slides (designated ‘PPT’ below) is available for use with Chapter 5. These slides and the lecture outline below form a completely integrated package that simplifies the teaching of this chapter’s material.

Lecture Outline

1. INTRODUCTION
   This chapter explores international trade in goods and services, examining its benefits, volume, and patterns. It also explores the main theories of why nations trade.

2. OVERVIEW OF INTERNATIONAL TRADE
   International Trade is the purchase, sale, or exchange of goods and services across national borders. One way to measure the importance of trade is to examine the volume of an economy’s trade relative to total output (see Map 5.1).

   A. Benefits of International Trade (PPT #3)
      Creates new entrepreneurial opportunities, expands the choice of goods and services, and creates jobs. The U.S. Department of Commerce estimates that for every $1 billion increase in exports, 22,800 U.S. jobs are created.

   B. Volume of International Trade (PPT #4-5)
      World merchandise exports are $9.2 trillion and service exports are approaching $2.1 trillion. Trade in merchandise is around 80% of total trade; services 20%.
      1. Trade and World Output
         Slower world economic output slows international trade; higher output spurs trade. Trade slows in a recession as people are uncertain about the future and buy less. Also, when an economy is in recession the currency is weak; slowing imports because they are more expensive.

   C. International Trade Patterns (PPT #6-7)
      Trade volume and world output provide insight into the international trade environment but do not disclose trading partners.
      1. Who trades with whom?
         a. Trade between the world’s high-income economies accounts for roughly 60 percent of total world merchandise trade.
         b. Two-way trade between high-income countries and low- and middle-income nations accounts for about 34 percent of world merchandise trade.
Intra-regional trade accounts for over 74 percent of Europe’s exports, 22 percent of Asia’s exports, and 54 percent of North America’s exports.

2. Some economists call this century the “Pacific century,” referring to the expected future growth of Asian economies and the expected shift in trade flows from the Atlantic to the Pacific Ocean.

D. Trade Dependence and Independence (PPT #8)
Countries fall on a continuum with total trade dependence at one end, and total independence at the other. Complete independence was considered desirable from the sixteenth through eighteenth centuries, but is not desirable today.

1. Effect on Developing and Transition Nations
Developing and transition nations often depend on their developed neighbors with whom they share borders. Germany is the single most important trading partner of central and eastern European nations.

2. Dangers of Trade Dependency
If a nation experiences economic recession or political turmoil, the dependent nation can experience economic problems.

3. Balance Between Dependence and Independence
Trade today is characterized by a certain degree of interdependency, which often reflects trade between a company’s subsidiaries.

3. THEORIES OF INTERNATIONAL TRADE (PPT #9)
It was not until the fifteenth century that people tried to explain why trade occurs. Efforts continue to refine existing trade theories and develop new ones.

A. Mercantilism (PPT #10)
States that nations should accumulate financial wealth, usually in the form of gold, by encouraging exports and discouraging imports. Other measures of a nation’s well-being, such as living standards or human development, are irrelevant. Practiced from around 1500 to the late 1700s by European nations, including Britain, France, the Netherlands, Portugal, and Spain.

1. How Mercantilism Worked
Trade was to benefit mother countries; colonies (in Africa, Asia, and North, South, and Central America) were exploitable resources.

a. Trade Surpluses
Nations increased wealth through a trade surplus—when the value of a nation’s exports exceeds the value of imports. Trade deficits were to be avoided at all costs.

b. Government Intervention
Governments intervened in international trade to maintain a trade surplus. They banned certain imports, imposed tariffs or quotas, and subsidized home-based industries to expand exports. Removal of gold and silver from the nation was outlawed.

c. Colonization
Mercantilist nations acquired colonies as sources of inexpensive raw materials and markets for higher-priced finished goods. Trade between mercantilist nations and their colonies expanded wealth and created armies and navies to control colonial empires and protect shipping.

2. Flaws of Mercantilism
The main problem with mercantilism is that it viewed international trade as a zero-sum game—a nation benefits only at the expense of other nations. But if all nations barricade their markets from imports and push their exports onto others, international trade would be severely restricted. Also, it kept colonial markets poor: they received little money for raw materials but were charged high prices for finished goods.

B. Absolute Advantage (PPT #11-12)

Absolute advantage is the ability of a nation to produce a good more efficiently than any other nation (produce a greater output using the same, or fewer, resources). Adam Smith reasoned that international trade should not be burdened by tariffs and quotas, but should flow according to market forces. A country should produce the goods in which it holds an absolute advantage and trade with others to obtain the goods it needs but does not produce efficiently.

1. Case: Riceland and Tealand

In a world of two countries (Riceland and Tealand) with two products (rice and tea) where transport costs nothing, each produces and consumes its own rice and tea. In Riceland, 1 resource unit produces a ton of rice, but 5 units are needed to produce a ton of tea. In Tealand, 6 resource units produce a ton of rice, but 3 units are needed to produce a ton of tea. Thus Riceland has an absolute advantage in rice production and Tealand has an absolute advantage in tea production.

a. Gains from Specialization and Trade

i. Although each country now specializes and world output increases, both countries face a problem: Riceland consumes only its rice and Tealand consumes only its tea. The problem can be resolved through trade.

ii. Although Tealand does not gain as much as Riceland, it gets more rice than it would without trade (Figure 5.2). Note that the gains from trade depend on the total resources of each country and the demand for each good in each country.

iii. The theory of absolute advantage destroys the mercantilist idea that international trade is a zero-sum game. Because both countries gain, international trade is a positive-sum game.

iv. The theory argues against restrictive trade policies and for nations to instead open their doors to trade so their people obtain more goods more cheaply in order to raise living standards.

C. Comparative Advantage (PPT #13-15)

Comparative advantage is the inability of a nation to produce a good more efficiently than other nations, but an ability to produce that good more efficiently than it does any other good. Thus trade is still beneficial even if one country is less efficient in the production of two goods, as long as it is less inefficient in the production of one of the goods.

1. Gains from Specialization and Trade

a. Suppose that Riceland now holds absolute advantages in the production of both rice and tea. In Riceland, 1 resource unit produces a ton of rice but 2 are needed to produce a ton of tea. In
Tealand, 6 resource units still produce a ton of rice, and 3 units are still needed to produce a ton of tea. Thus Riceland has absolute advantages in producing both goods.

b. Although Tealand has absolute disadvantages in rice and tea, it has a comparative advantage in tea; Tealand produces tea more efficiently than it produces rice.

c. By specializing and trading, Tealand gets double the rice than if it produced the rice itself, and Riceland gets twice as much tea than if it produced the tea itself (Figure 5.3).

2. Assumptions and Limitations

a. Assumes countries are only driven by the maximization of production and consumption. Governments get involved in trade for many reasons (e.g., concerns for workers or consumers).

b. Assumes only two countries engaged in the production and consumption of two goods. In reality, more than 180 countries and countless products are produced, traded, and consumed.

c. Assumes no transportation costs. In reality, transportation costs are a major expense of international trade.

d. Assumes labor is the only resource for production and is mobile within each nation but cannot be transferred. Other resources are clearly needed in production and labor is becoming more mobile.

e. Assumes specialization does not result in efficiency gains. In fact, specialization results in increased knowledge of a task and future improvements.

D. Factor Proportions Theory (PPT #16-17)

Factor proportions theory states that countries produce and export goods that require resources (factors) that are abundant and import goods that require resources in short supply. Thus the theory focuses on the productivity of the production process.

1. Labor versus Land and Capital Equipment

a. Factor proportions theory breaks resources into two categories: (1) labor, and (2) land and capital equipment. It predicts that a country will specialize in products that require labor if labor cost is low relative to land and capital costs, and vice versa.

b. Factor proportions theory is conceptually appealing (e.g., Australia has much land and a small population; its exports consist of products that require much land while imports consist of manufactured and consumer goods).

2. Evidence on Factor Proportions Theory: The Leontief Paradox

a. Factor proportions theory is not supported by studies that examine trade flows.

b. Wassily Leontief tested whether the U.S., which uses an abundance of capital equipment, exports goods requiring capital-intensive production and imports goods requiring labor-intensive production. He found U.S. exports require more labor-intensive production than its imports; called the Leontief Paradox.

c. One explanation is that factor proportions theory considers a country’s production factors to be homogeneous—particularly labor. But labor skills vary greatly within a country.
E. International Product Life Cycle (PPT #18)

The *international product life cycle theory* states that a company will begin exporting its product and later undertake foreign direct investment as the product moves through its life cycle (a country’s export eventually becomes its import).

1. Stages of the Product Life Cycle
   a. In the *new product stage*, stage 1, the high purchasing power and demand of spur a company to design and introduce a new product concept (see Figure 5.4). Although initially there is virtually no export market, exports increase late in the new product stage.
   b. In the *maturing product stage*, stage 2, the domestic market and markets abroad become fully aware of the existence of the product and its benefits. Demand rises and is sustained over a fairly lengthy period of time. Near the end of the maturity stage, the product generates sales in developing nations, and manufacturing is established there.
   c. In the *standardized product stage*, stage 3, competition from other companies selling similar products pressures companies to lower prices in order to maintain sales levels. An aggressive search for low-cost production bases abroad begins and the home market may begin importing.

2. Limitations of the Theory
   a. The United States is no longer the sole innovator of products in the world; new products spring up everywhere as the research and development activities globalize.
   b. Companies today design new products and make product modifications at a very quick pace.
   c. Companies introduce products in many markets simultaneously to recoup a product’s research and development costs before sales decline.
   d. The theory is challenged by the fact that more companies are operating in international markets from their inception. The Internet has made this easier particularly for small and midsize companies. Also, small companies are more often teaming up with companies in other markets to develop new products or production technologies.
   e. Yet the theory retains explanatory power when applied to technology-based products that are eventually mass-produced.

F. New Trade Theory (PPT #19)

*New trade theory* argues: (1) There are gains to be made from specialization and increasing economies of scale; (2) Companies first to market can create barriers to entry; and (3) Government may play a role in assisting its home-based companies. It emphasizes productivity rather than resources.

1. First-Mover Advantage
   a. As specialization and output increase, companies realize economies of scale, and unit production costs decline. Then companies expand, lower prices, and force competitors to produce at a similar level of output to be competitive.
   b. A *first-mover advantage* is the economic and strategic advantage gained by being the first company to enter an industry. It creates
a barrier to entry for potential rivals and may allow a country to dominate in a product.

c. Some make a case for government assistance; by working together to target new industries, a government and its home-based companies can be the first mover in an industry.

G. National Competitive Advantage (PPT #20-25)

*National competitive advantage theory* states that a nation’s competitiveness in an industry depends on the capacity of the industry to innovate and upgrade. This theory attempts to explain why some nations are more competitive in certain industries. The *Porter Diamond* (the basis of national competitiveness) consists of: (1) factor conditions; (2) demand conditions; (3) related and supporting industries; and (4) firm strategy, structure, and rivalry.

1. Factor Conditions

Porter acknowledges the importance of *basic* factors (such as labor, natural resources, climate, and surface features) in what a country produces and exports, but adds the significance of *advanced* factors.

a. Advanced Factors

   Include skill levels of the workforce and quality of the technological infrastructure. Account for the sustained competitive advantage that a country enjoys in a product.

2. Demand Conditions

a. Sophisticated buyers in the home market are important to national competitive advantage in a product area. A sophisticated domestic market drives companies to modify existing products to include new design features and develop new products and technologies.

3. Related and Supporting Industries

a. Companies in internationally competitive industries do not exist in isolation. Supporting industries provide inputs, forming clusters of related activities in the same region that reinforce productivity and competitiveness.

b. *Exporting clusters* are those that export products or make investments to compete outside the local area and can lead to long-term prosperity.

4. Firm Strategy, Structure, and Rivalry

a. Strategic decisions of firms have lasting effects on future competitiveness, but equally important is industry structure and rivalry between companies.

b. The more intense the struggle to survive between domestic companies, the greater is their competitiveness. This heightened competitiveness helps them to compete against imports and against companies that might develop a production presence in the home market.

5. Government and Chance

a. Government policies toward industry and export and import regulations can hurt or help competitiveness.

b. Chance events also can influence national competitiveness; it can help competitiveness or threaten it.
c. Porter’s theory holds promise but has just begun to be subjected to research using actual data on each of the factors involved and national competitiveness.

4. BOTTOM LINE FOR BUSINESS
This chapter explored the benefits of international trade and its volume and pattern in the world today. Trade can free a nation’s entrepreneurial spirit and bring economic development. As the value and volume of trade continues to expand worldwide, new theories will likely emerge to explain why countries trade and why they have advantages in producing certain products.