CHAPTER 2

EARLY TRADE THEORIES:
Mercantilism and the Transition to the Classical World of David Ricardo

Learning Objectives:

- Explain the basic concepts and policies associated with Mercantilism.
- Distinguish the analyses of David Hume and Adam Smith from Mercantilist views.

I. *Outline*

Introduction

- The Oracle in the 21st

Century Mercantilism
- The Mercantilist Economic System
- The Role of Government
- Mercantilism and Domestic Economic Policy The

Challenge to Mercantilism by Early Classical Writers
- David Hume – The Price-Specie-Flow Mechanism
- Adam Smith and the Invisible Hand

Summary

II. *Special Chapter Features*

In the Real World: Mercantilism Is Still Alive
Concept Box 1: Capsule Summary of the Price-Specie-Flow Mechanism
Concept Box 2: Concept Review – Price Elasticity and Total Expenditures
Titans of International Economics: Adam Smith (1723-1790)

III. *Purpose of Chapter*

The purpose of this chapter is to trace out some of the early ideas regarding the basis for international trade and the distribution of the benefits to be gained from trade. The chapter not only provides some historical perspective to trade theory, but it also makes clear why certain contemporary protectionist attitudes can be seen as being based in a Mercantilist view of the world.

IV. *Teaching Tips*

A. It is important to focus on the principal tenets of the Mercantilist system and then to examine the policy positions that follow logically. This provides a good background for evaluating various trade policy positions later in the book.

B. We feel that this is an excellent time to introduce the labor theory of value. It is a good opportunity to help the student begin thinking in relative terms. It is therefore important that the relative nature of this concept is clear in the students' minds.

C. Once the Mercantilist position is laid out and the economic policy implications discussed, one can examine how Hume's price-specie-flow mechanism and Smith's ideas of the mutual gains from trade based on absolute advantage contributed to the decline of the Mercantilist way of thinking.

D. Discussing the price-specie-flow mechanism at this point gives the student an early insight into the macro aspect of international trade that often gets short shrift when the micro focus of Classical comparative advantage is introduced.

V. *Answers to End-of-Chapter Questions and Problems*

1. Wealth was viewed as synonymous with holdings of precious metals. Nation-states wished to become wealthy and this meant obtaining large holdings of precious metals. It is also argued by some that the shortage of coinage constrained the growth of these nation-states and that precious metals were required to increase the supply of coinage (money) in order for the countries to grow.

2. Critical pillars of Mercantilism:
   - a. the zero-sum nature of international trade;
   - b. the need for strong, powerful governments;
   - c. the labor theory of value;
   - d. the need to regulate economic activity; and
   - e. the need for a positive trade balance.

Because wealth was viewed in terms of holdings of precious metals, the objective of economic activity and policy was to foster increased holdings of specie. Mercantilists believed that individuals pursuing their own self interest would not accomplish this objective and that, consequently, economic activity had to be closely regulated and supervised.

3. The paradox of Mercantilism is that wealthy countries would contain large numbers of very poor people. A second paradox is that wealthy countries had to spend great amounts of specie to protect their holdings of specie. Wages were kept low (at institutional subsistence levels) to reduce labor costs, and families were encouraged to have children through various taxes and subsidies. These actions contributed to a very large poor working class.

4. Critical assumptions of the price-specie-flow mechanism:
   - a. a link between the money supply and the price level, e.g., the quantity theory of money;
   - b. perfect competition, with flexible wages and prices;
   - c. price-elastic demand for traded goods; and

d. existence of a gold standard, with no government interference with the movement of gold and no actions to sterilize gold's impact on the money supply.

If the demand for traded goods were price inelastic, the movement of gold and prices would worsen trade balances, not correct them. This would be destabilizing, not stabilizing.

5. Hume's price-specie-flow mechanism suggested that a country could not sustain a positive balance of trade because of the effect on money and prices. The external payments position had repercussions on internal economic variables. A continual positive trade balance was thus not a viable policy target, and not a continuous source of increased wealth. Smith's concept of absolute advantage indicated that both countries could gain from trade, in direct contrast to the Mercantilist's zero-sum-game view of trade.

6. The United States has an absolute advantage in the production of wheat (3 hrs./unit < 4 hrs./unit) and the United Kingdom has an absolute advantage in clothing (4 hrs./unit < 9 hrs./unit). The United States would gain at the barter price of 1C:2W (1W:0.5C) since it only gets 0.33C for 1W in autarky. Similarly, the United Kingdom would benefit because it takes only 0.5C to obtain a unit of wheat with trade instead of 1C in autarky.

7. (a) In autarky the United Kingdom would produce 75 units of clothing (300 labor hours/4 hrs.) and 50 units of wheat (200 labor hours/4 hrs.).

(b) If the United Kingdom allocates all of its labor to clothing production, it will produce 125 units of clothing (500 total labor hours/4 hrs.). United Kingdom consumption of clothing with trade will be the difference between domestic production and exports, i.e., 85 units of cloth. United Kingdom consumption of wheat will be equal to the 80 units of wheat imports it receives for its 40 units of clothing exports [(40 units of exports) (2W/1C)]. Thus, with trade, United Kingdom consumption of clothing increased from 75 to 85 units and its consumption of wheat increased from 50 units to 80 units.

8. (a) In autarky United States wheat production will be 110 units (330 labor hrs./3 hrs.), and cloth production will be 30 units (270 labor hours/9 hrs.).

(b) With trade, the United States will consume 120 units of wheat (200 units of production less the 80 units of exports) and 40 units of cloth imports. Consequently, with trade, U.S. consumption of wheat has risen from 110 to 120 units and its consumption of cloth has risen from 30 to 40 units.

In this case trade is a positive-sum game since both parties are able to consume more of both goods with trade compared to autarky, i.e., both countries unambiguously gain from trade.

9. A Mercantilist would view the continuing trade surplus as a very desirable outcome,

it produces a net increase in Chinese holdings of foreign exchange (claims on foreign country assets) which is similar to increased holdings of specie in Mercantilist times. To the Mercantilist, the surplus represents successful Chinese policy, not a problem. Hume would argue that the situation would be self-correcting if a fixed exchange rate system is in place as long as prices and wages are flexible and China does nothing to interfere with the flow of payment and its impact on the money supply. The increase in the money supply accompanying the trade surplus would lead to a relative increase in the prices of Chinese goods, thus reducing the trade surplus. In China's trading partners, the money supply would decrease and prices would decrease, thus decreasing their deficits. Movement to a zero trade balance would also occur under a flexible-rate system because the trade surplus would lead to an increase in the value of the Chinese currency and therefore to a relative increase in the prices of Chinese goods and services.

10. With a price elasticity of demand of (-) 2.0, a 10 percent increase in price will cause the quantity demanded in Spain to fall by 20 percent [(-2.0) (0.10)]. Because Switzerland was initially exporting 5,000 units, the new level of exports will be 4,000 [(5,000) (1 - 0.20)]. The new value of Swiss exports will be 440,000 francs [(4,000) (110)], which is exactly equal to its new level of imports. The increase in Swiss prices has thus worked to remove its trade surplus with Spain.

In the alternative case, with a price elasticity of demand for Swiss exports of (-) 0.2, the 10 percent rise in the price of Swiss goods will cause the quantity demanded in Spain to fall by only 2 percent [(-0.2)(0.10)]. The initial export of 5,000 units decreases by 2 percent of 5,000 or by 100 units, to a quantity of 4,900 units. The new value of Swiss exports to Spain will thus be 539,000 francs [(4,900)(110)]. The Swiss trade surplus with Spain will hence be 539,000 francs – 440,000 francs = 99,000 francs, which is larger than the original surplus of 90,000 francs. The inelastic demand situation has resulted in the price-specie-flow mechanism generating an increase in Switzerland's surplus, not a decrease.

VI. *Sample Exam Questions*

A. Essay Questions

1. Explain how the price-specie-flow mechanism operates to maintain balanced trade between countries. What are the assumptions that are critical to the mechanism's successful operation?

2. Why was a positive trade balance so important to Mercantilists? In Mercantilist thinking, why did a positive trade balance not result in domestic inflation and a loss of international competitiveness?

3. What were the critical foundations of Mercantilist thought? What trade policies resulted from this way of thinking?

4. Explain what is meant by a zero-sum game, and why it was central to Mercantilist thinking. Then, explain how Smith's idea of absolute advantage altered the nature of the "game."

5. (a) Why did the Mercantilists think that a situation where a country's exports exceed its imports is a "favorable" situation for the country? Briefly, what policies would a Mercantilist recommend in order to generate such a "favorable" situation?

   (b) What was the "price-specie-flow doctrine" and how did it undermine Mercantilist thinking? Why would a situation where the demands for traded goods are "inelastic" with respect to price changes pose a problem for the "price-specie-flow doctrine" in its attack on Mercantilist thinking?

6. During the 2016 campaigns for nomination for president of the United States, the point was frequently made that the United States was losing from trade with any given country if the United States had a trade deficit with that country. Using material from this chapter, assess this position.

B. Multiple-Choice Questions

7. In the price-specie-flow doctrine, a deficit country will __________ gold, and this gold flow will ultimately lead to __________ in the deficit country's exports.

   a. lose; a decrease
   * b. lose; an increase
   c. gain; a decrease
   d. gain; an increase

8. In the Mercantilist view of international trade (in a two-country world),

   a. both countries could gain from trade at the same time, but the distribution of the gains depended upon the terms of trade.
   b. both countries could gain from trade at the same time, and the terms of trade were of no consequence for the distribution of the gains.
   c. neither country could ever gain from trade.
   * d. one country's gain from trade was associated with a loss for the other country.

9. According to the labor theory of value,

   a. the value of labor is determined by its value in production.
   b. the value of a good is determined by the amount of labor with which each unit of capital in an industry works.
   * c. the price of a good A compared to the price of good B bears the same relationship as

the relative amounts of labor used in producing each good.

d. the values of two minerals such as coal and gold with similar production costs may be very different.

10. If the demand for traded goods is price-inelastic, the price-specie-flow mechanism will result in

a. gold movements between countries that remove trade deficits and surpluses.
* b. gold movements between countries that worsen trade deficits and surpluses.
c. negligible movements of gold between countries and hence little or no adjustment of trade deficits and surpluses.
d. a removal of the basis for trade between countries.

11. In Adam Smith's view, international trade

a. benefited both trading countries.
b. was based on absolute cost differences.
c. reflected the resource base of the countries in question.
* d. all of the above.

12. Which of the following policies would *NOT* be consistent with the Mercantilist balance-of-trade doctrine?

* a. payment of high wages to labor
b. import duties on final products
c. export subsidies
d. prohibition of imports of manufactured goods

13. During the price-specie-flow adjustment process to a trade imbalance, if demands for goods are *inelastic*, then, when the price level __________ in the country with the

trade deficit, the value of that country's exports will __________ as the price-specie-flow process takes place.

a. falls; increase
* b. falls; decrease
c. rises; increase
d. rises; decrease

14. David Hume's price-specie-flow mechanism

a. reinforced the Mercantilist notion that a country could maintain a permanent "favorable" balance of trade where exports exceeded imports.
* b. works more effectively if demands for traded goods are "price-elastic" rather than

"price-inelastic."

c. assumed that the countries involved have substantial unemployment.
d. works equally effectively whether demands for traded goods are "price-elastic" or "price-inelastic."

15. The price-specie-flow mechanism suggested that

a. a country could easily maintain a balance-of-payments surplus for a long period of time.
b. a deficit country would experience an increase in its money supply and its price level.
* c. a surplus country would experience an increase in its money supply and its price level.
d. a country's internal price level has no relation to the country's foreign trade activities.

16. The policy of minimum government interference in or regulation of economic activity, advocated by Adam Smith and the Classical economists, was known as

a. the law of comparative advantage.
* b. laissez-faire.
c. the labor theory of value.
d. Mercantilism.

17. A Mercantilist policymaker would be in favor of which of the following policies or events pertaining to his/her country?

a. a decrease in the size of the population
b. a minimum wage bill to protect the standard of living of workers
c. a prohibition on the export of manufactured goods
* d. an increase in the percentage of factors of production devoted to adding value to imported raw materials in order to later export the resulting manufactured goods.

18. In the context of David Hume's price-specie-flow mechanism that challenged the feasibility of the Mercantilist ideas regarding a trade surplus, which one of the following statements is **NOT** correct?

a. There is a decrease in the money supply in the deficit country.
b. There is an increase in the price level in the surplus country.
* c. There is an increase in real income in the surplus country.
d. Price changes in the surplus country cause that country's exports to decrease.

19. In David Hume's price-specie-flow doctrine or adjustment mechanism, the assumption is made that changes in the money supply have an impact on ___________. Further, the demand for traded goods is assumed to be __________ with respect to price.

* a. prices rather than on output; elastic
b. prices rather than on output; inelastic
c. output rather than on prices; elastic
d. output rather than on prices; inelastic

20. Two important assumptions contained in David Hume's price specie-flow adjustment mechanism are that

a. countries are at full employment and the demands for traded goods are "inelastic."
b. countries are at full employment and the price level of a country moves in inverse proportion to movements in the country's money supply.
c. a country with a balance-of-payments deficit will experience a gold outflow and countries are at a level of employment that is below full employment.
* d. the demands for traded goods are "elastic" and countries are at full employment.

21. The "paradox of Mercantilism" reflected that fact that

a. trade surpluses were fostered by protective tariffs.
* b. rich countries were comprised of large numbers of poor people.
c. gold inflows led to higher prices and reduced exports.
d. gold could not be hoarded and provide money for the economy at the same time.

22. Given the following Classical-type table showing the number of days of labor input required to obtain one unit of output of each of the two commodities in each of the two countries:

	bicycles	computers
United States	4 days	3 days
United Kingdom	5 days	6 days

The United States has an absolute advantage in the production of __________.

a. bicycles (only)
b. computers (only)
* c. both bicycles and computers
d. neither bicycles nor computers

23. With M_S = supply of money, V = velocity of money, P = price level, and Y = real output, which one of the following indicates the quantity theory of money expression?

a. $M_S Y = PV$
b. $M_S P = VY$
c. $M_S = PY - V$
* d. $M_S V = PY$

24. In the price-specie-flow mechanism, there is a gold __________ a country with a balance-of-trade surplus, and this gold flow ultimately leads to __________ in the surplus country's exports.

a. inflow into; an increase
* b. inflow into; a decrease
c. outflow from; an increase
d. outflow from; a decrease

25. In the price-specie-flow adjustment mechanism, a country with a balance-of-trade surplus experiences

a. a gold inflow and a decrease in the price level.
b. a gold outflow and an increase in the money supply.
* c. an increase in the money supply and a decrease in exports.
d. a decrease in the money supply and a decrease in imports.

26. Suppose that country A's total exports are 10,000 units of good X at a price of $20 per unit, meaning that country A's export earnings or receipts are $200,000. Suppose also that the foreign price elasticity of demand for country A's exports of good X is (-) 0.6. If country A's prices for all goods, including its exports, now rise by 10% because of a gold inflow such as in the Mercantilist model, then, other things equal, country A's exports of good X will fall by __________ and country A's export earnings or receipts will become __________.

a. 600 units; less than $200,000
* b. 600 units; greater than $200,000
c. 1,000 units; less than $200,000
d. 1,000 units; greater than $200,000

CHAPTER 2:

Early Trade Theories: Mercantilism and the Transition to the Classical World of David Ricardo

Learning Objectives

- Describe the basic concepts and policies associated with Mercantilism.
- Distinguish the analyses of David Hume and Adam Smith from Mercantilist views.

Mercantilism

- A collection of attitudes toward economic activity that became dominant in Europe during the period between 1500 and 1750.
- Mercantilism is often called the political economy of state building.

The Mercantilist Economic System

- A country's wealth is measured by its holdings of precious metals (specie).
- International trade is a zero sum game.
- A country should maintain a positive trade balance (that is, export more than it imports).
- Mercantilism relied upon the labor theory of value.

The Role of Government

- "Bullionism"
- Substantial regulation of the domestic economy, including
  - governmental granting of monopolies;
  - controls of labor through craft guilds;
- Policies to encourage exports and discourage imports (except imported inputs).

The Role of Government

- Policies to ensure low wages.
- Policies to stimulate population growth (incentives for marriage and subsidies for children).
- Policies to enhance the power of the state, including the establishment of a strong army, navy, and merchant marine.

The Paradox of Mercantilism

The pursuit of power by the state at the expense of other goals and the supreme importance assigned to the accumulation of precious metals led to an obvious paradox:

To be rich, a country needed to have a lot of poor people!

The Challenge to Mercantilism by Early Classical Writers

- In the early 1700s, questions arose regarding the logic of mercantilism.
- New ideas and new philosophies contributed to the spirit of change.
- Market systems emerged as a result of technological developments and the strengthening of the profit motive.

Hume's Challenge: the Price-Specie Flow Mechanism

- Hume (mid-18th century): maintaining a trade surplus forever is impossible.
- Trade surplus ⇒ inflow of specie
- Inflow of specie ⇒ increased money supply (M_S)
- Increased M_S ⇒ higher prices (and wages)
- Higher prices ⇒ lower exports and higher imports

Hume's Challenge: the Price-Specie Flow Mechanism

- It was equally true that a trade deficit could not persist forever.
- Trade deficit ⇒ outflow of specie
- Outflow of specie ⇒ decreased M_S
- Decreased M_S ⇒ lower prices (and wages)
- Lower prices ⇒ higher exports and lower imports

Hume's Challenge: the Price-Specie Flow Mechanism

- The movement of specie between countries serves as an automatic adjustment mechanism.
- It always results in the equalization of the value of exports and imports (i.e., it produces a zero trade balance).

Assumptions underlying the Classical price-specie-flow mechanism

- Prices are formally linked to the money stock via the quantity theory of money:

$$M_S V = PY$$

- Demand for traded goods is price elastic.
- Perfect competition exists in both product and factor markets.
- A gold standard exists

Adam Smith and the Invisible Hand

- Smith believed a nation’s wealth resided in its productive capacity.
- The growth of productive capacity was fostered when people were free to pursue their own interests.
- Self-interest was the catalyst and competition was the automatic regulation mechanism.

Smith's Challenge: Absolute Advantage

- Smith believed trade to be a **positive-sum game**.
- Countries should export those goods they can produce efficiently, and import those they cannot.
- If countries trade according to this principle, all will gain from trade (trade will be mutually beneficial).

Absolute Advantage: An Example

Labor Requirements and Absolute Advantage

	Corn	*Blankets*	*Price Ratios in Autarky*
United States	1 hr/bu	6 hr/bl	1B:6C
Mexico	3 hr/bu	5 hr/bl	1B:5/3C

Absolute Advantage: An Example

- In the U.S., 1 blanket will exchange for 6 bushels of corn (or 1C for 1/6B).
- In Mexico, 1 blanket will exchange for 5/3 bushels of corn (or 1C for 3/5B).
- These exchange ratios can be viewed as opportunity costs and are commonly referred to as the ***price ratios in autarky***.

Absolute Advantage: An Example

- The U.S has an absolute advantage in corn because less labor time is required to produce corn in the U.S.
- Mexico has an absolute advantage in blankets because less labor time is required to produce blankets in Mexico.

Absolute Advantage: An Example

- Suppose the U.S. and Mexico agree to exchange goods at a rate of 1B for 4C (or 1C for ¼ B).
- From the U.S. perspective:
  - Can now buy blankets at a lower price (1B for 6C in autarky, but 1B for 4C in trade).
  - Can sell corn at a higher price (1C for 1/6 B in autarky, but 1C for ¼ B in trade).

Absolute Advantage: An Example

- From Mexico's perspective:
  - Can now sell blankets at a higher price (1B for 5/3C in autarky, but 1B for 4C in trade).
  - Can buy corn at a lower price (1C for 3/5 B in autarky, but 1C for ¼ B in trade).

Absolute Advantage: An Example

- Bottom line: both countries gain from trade, even if certain industries (blanket industry in U.S., corn industry in Mexico) stand to lose.
- Note that mutual gains can occur over a wide range of barter prices.

Limits to Smith’s Thinking

- If one country had an absolute advantage in the production of both (or all) goods, Smith saw that country as not gaining from trade.
- But David Ricardo’s Principle of Comparative Advantage (1817) took Smith’s work farther**: even in the case cited above, trade can be mutually beneficial!**