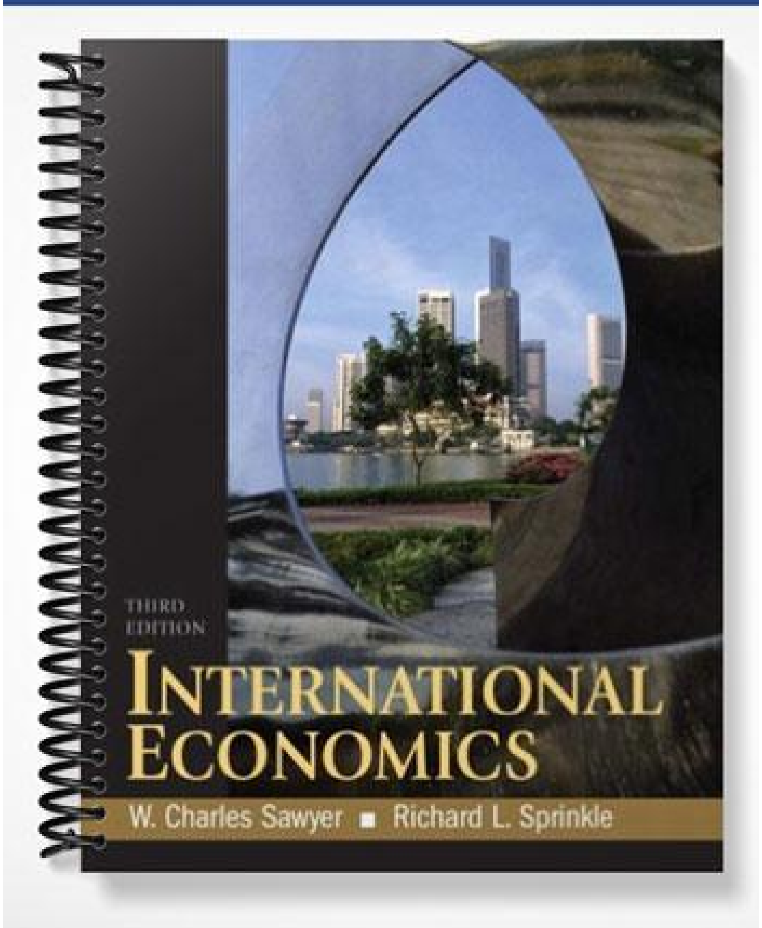
SOLUTIONS MANUAL



CHAPTER 2
Why Countries Trade

CHAPTER OUTLINE

I. Introduction

II. International Trade Versus Interregional Trade
- international trade occurs for the same reasons as interregional trade
- gains from technology and gains from trade

III. Trade in an Individual Product
- autarky
- trade in cloth (U.S./India) — Figure 2.1
- supply and demand
- the effects on India and the U.S.

IV. Trade Based on Absolute Advantage

A. Absolute Advantage
- Football Games, Rats, and Economic Theory
- Mercantilism
- Table 2.1

B. The Gains from Specialization and Trade with Absolute Advantage
- gains from trade — Table 2.2
- the labor theory of value

V. Trade Based on Comparative Advantage

A. Comparative Advantage
- Table 2.3
- David Ricardo
- Babe Ruth

B. The Gains from Specialization and Trade with Comparative Advantage
- Change in world output — Table 2.4

VI. Trade Based on Opportunity Costs

A. Opportunity Costs
- Labor Costs as a Source of Comparative Advantage — Table 2.5

B. The Gains from Specialization and Trade with Opportunity Costs
- Table 2.6

VII. Dynamic Gains from Trade
- economic growth
- small country benefits

- product variety
- competition policy

TEACHING NOTES AND TIPS

I. Introduction

Notes
The title of the chapter sets up the introduction. The purpose of the chapter is to start to explain the world pattern of trade – who imports what and who exports what. Next we briefly outline the subjects covered in the chapter: international versus interregional trade, trade in an individual product, absolute advantage, comparative advantage, the gains from trade, and the dynamic gains from trade.

Teaching Tip
You already understand trade. You've been doing it all your life. We're just going to teach you what you "know" in more formal terms.

II. International Trade Versus Interregional Trade

Notes
This section starts out the discussion of trade by focusing on trade within a country.

Teaching Tip
Students, particularly if they are from a "large" country, know a lot more about trade at the start than they think they do. They are observing trade any time they drive on a major highway. It would be difficult for any state or province of a country to prosper without "trading" with other parts of the country. Ask the students to consider what would happen to their welfare if their state did not trade with other states. From there you can lead them to the thought that trade improves welfare. Now they just have to learn more precisely why.

III. Trade in an Individual Product

Notes
The section begins the discussion of international trade by focusing on the effects of trade in an individual product. By initially focusing on one product, the price effects, production effects, and consumption effects of trade can clearly be developed for the student.

Teaching Tip
After developing the price effects, production effects, and consumption effects of international trade one can clearly discuss the benefits and costs associated with international trade. In addition, it is important that students understand Figure 2.1 as it will be used at several points throughout the book.

IV. Trade Based on Absolute Advantage

Notes

This section goes through the standard explanation of mutually beneficial trade based on absolute advantage. A few extra points are worth touching on here. The theory is based on limiting assumptions. Discuss the material found in "Football Games, Rats, and Economic Theory". We all use "theory", although most of the time the theory is not as "formal" as in economics. Table 2.2 shows that trade makes the *world* better off. The gains from trade are not just country specific. Also, discuss "Mercantilism." Many students enter this course with the vague feeling that trading with other countries may not improve welfare. We aren't born with this bias so it must have come from somewhere. The boxed feature "Mercantilism" is designed to show where this bias came from and why it is wrong.

Teaching Tip

It is a good idea to mention that absolute advantage is *really* important in another context. The average level of output per worker in a country roughly determines GDP per capita. Absolute advantage is not just important for international trade. One point to add is that the mercantilists had income and wealth confused. Ask the students what they would rather have: a gift of $1 million with the catch that they can never earn any more income or a job that guarantees them $75,000 per year for life. They'll get the point that income is more important than wealth.

V. Trade Based on Comparative Advantage

Notes

Table 2.3 is the usual setup to make comparative advantage obvious. Table 2.4 is designed to put some "real world" feel into the concept of comparative advantage. Table 2.6 shows how trade increases world output. The Passport on "Labor Costs As A Source of Comparative Advantage" details the pitfalls of confusing low wages with comparative advantage.

Teaching Tip

Paul Samuelson once said that comparative advantage is one of few things in economics that is true but not obvious.

VI. Trade Based on Opportunity Costs

Notes

This section answers the question why comparative advantage exists based on the general concept of opportunity costs. Table 2.6 shows how trade beats autarky.

Teaching Tip

Trade is about as close to a free lunch as one can find in economics: more goods for the same level of effort.

VII. Dynamic Gains from Trade

Notes

This section covers the gains from trade that are difficult to capture from a graph. These include higher economic growth; the importance of trade for a small country; higher quality; and the market-based enforcement of an adequate amount of competition.

Teaching Tip

Mention the huge literature in economics on trade and growth. It is proven beyond any doubt that trade enhances the rate of economic growth. Not trading is an excellent way for a country to stay poor.

BRIEF ANSWERS TO PROBLEMS AND QUESTIONS FOR REVIEW

1. International trade and interregional trade are similar in that countries like regions of a country are not equally capable of producing every good or service they want to consume. Like countries, regions can benefit if each specializes in producing the goods it can produce best and satisfy their other wants and needs by trading for them.

2. Referring to Figure 2.1, the graph on the left shows that the price of cloth in the U.S. is relatively high. The analogous graph on the left shows that the price of cloth in India is relatively low. Given the differences in the price of cloth, it may be profitable to ship cloth from India to the U.S. and make a profit on this transaction.

3. Referring to Figure 2.1, the price of cloth in the U.S. is higher than it is in India. If trade opens up, the supply of cloth in the U.S. will rise which drives down the price. In India, the addition of U.S. demand to the existing Indian demand drives up the price. Trade would have a tendency to make the price of cloth in the two countries more similar.

4. Referring to Figure 2.1, the price of cloth in India is relatively low. If India exports cloth to the U.S. this effectively means an increase in the demand for cloth which drives up the price. The general result is that trade may lead to domestic consumers paying more for a good that their country exports.

5. Mercantilism is an economic doctrine that stresses the importance of a country accumulating a large stock of gold and silver. Trade can lead to this result only if the country exports more than it imports. In a policy sense, mercantilism leads to policies that tend to restrict imports and increase the amount of exports.

6. International trade is an n-sum game where both countries benefit from trade. It is not an n-sum game where one country loses and another wins. This is important because if trade were an n-sum game then the doctrine of mercantilism would be applicable.

7. The validity of any economic theory such as comparative advantage does not hinge on the “realism” of the assumptions. Any theory is to some extent unrealistic in the sense that the number of factors under consideration has to be manageable. Whether or not a theory is valid is determined by its ability to explain the phenomenon in question, in this case international trade.

8. According to Adam Smith, international trade was based on the concept of absolute advantage. Under absolute advantage, the structure of trade is determined by a country's ability to produce a good using less resources (lower cost) than another country. The gains from specialization and trade are the increase in world output that results from each country specializing its production according to its absolute advantage.

9. A country can have an absolute disadvantage in the production of all goods if more resources are required to produce every good when compared to another country. Even if a country has an absolute disadvantage in the production of all goods, it will still have a comparative advantage in the production of some goods, if the country can produce a good at a lower opportunity cost than the other country.

10. According to David Ricardo, international trade was based on the concept of comparative advantage. Under comparative advantage, the structure of trade is determined by a country's ability to produce a good at a lower opportunity cost than another country. The gains from specialization and trade are the increase in world output that results from each country specializing its production according to its comparative advantage.

11. With a constant level of world resources, international trade brings about an increase in total world output. International trade causes each country to specialize in the production of goods in which it has a comparative advantage. In this case, the world uses its resources more efficiently resulting in additional output.

12. If wages in a country are low then usually this goes hand in hand with low labor productivity. What is important is unit labor costs which takes into account both the wages paid and labor productivity.

13. Case I: Japanese absolute advantage in corn and disadvantage in wine; Korean advantage in wine and disadvantage in corn
Case II: Japanese absolute advantage in both; Korean disadvantage in both.
Case III: Japanese absolute advantage in corn; Korean disadvantage in corn.
Case IV: Japanese absolute advantage in both; Korean disadvantage in both.

14. Case I: Japanese comparative advantage in corn and disadvantage in wine; Korean advantage in wine and disadvantage in corn
Case II: Japanese comparative advantage in corn and disadvantage in wine; Korean advantage in wine and disadvantage in corn.
Case III: Japanese comparative advantage in corn and disadvantage in wine; Korean advantage in wine and disadvantage in corn.
Case IV: Japan and Korea have no comparative advantage.

15. In Cases I, II, and III trade is possible. In Case IV, trade is not possible.

16. 1. Japan gains 1 wine.
    2. Korea gains 2 corn.
    3. The range for the terms of trade for mutually beneficial trade are 1C=2W to 1C=.75W.
    4. Japan gains 3 wine and Korea gains 1 corn.

17. For Mexico, it will import beer from Brazil. Mexican consumers of beer will gain as they can buy more beer at a lower price. Mexican producers will lose as they produce less beer and sell it at a lower price. The Mexican economy as a whole will gain as the consumers gain more than the producers lose. For Brazil it is just the opposite. For the graphical analysis see figure 2.1 in the text.

18. For the U.S., it will import tequila from Mexico. U.S. consumers of tequila will gain as they can now buy tequila and U.S. does not have any production of tequila so U.S. producers do not lose in this case. The U.S. economy as a whole will gain as the consumers gain without any lose to U.S. producers. For Mexico, Mexican consumers of tequila lose as they now have to pay a higher price and consume less tequila and Mexican producers gain as they can now sell more tequila at a higher price and produce more. In total Mexico gains as Mexican consumers lose less than Mexican producers gain.

19. These dynamic gains from trade are the gains from trade that occur over time because trade causes an increase in a country's economic growth or induces greater efficiency in the use of resources. First, a country engaging in international trade uses its resources more efficiently. The resources employed in the industry with a comparative advantage can produce more output, which leads to a higher real GDP. Second, there may be even greater benefits from trade for small countries. Larger potential gains from trade are available in some industries that are subject to increasing returns to scale. Third, international trade not only increases the quantity of the goods we consume but also increases the *quality* of the goods. Fourth, international trade can be a very effective way to enhance competition in a country's domestic market.

MULTIPLE-CHOICE QUESTIONS

1. Which of the following statements is true?
   a. International trade is nothing like interregional trade.
* b. International trade and interregional trade occur for similar reasons.
   c. International trade is bad for a country.
   d. Interregional trade occurs only in the U.S.

2. International trade in a single product:
   a. would tend to lower the price in the exporting country.
   b. would tend to increase the price in the importing country.
* c. would tend to increase the price in the exporting country.
   d. would not affect the price in either country.

3. Which of the following statements is false?
   a. The price of the traded good rises in the exporting country.
   b. The production of the traded good rises in the exporting country.
* c. The production of the traded good falls in the importing country.
   d. The price of the traded good rises in the importing country.

4. Adam Smith stated that trade was:
   a. a zero sum game.
   b. to be controlled by government to maintain a surplus.
* c. beneficial to all countries.
   d. beneficial to large countries that can reduce costs.

5. The Mercantilists believed:
* a. that international trade was a zero-sum game.
   b. that international trade was an n-sum game.
   c. that maximizing a country's imports would improve its welfare.
   d. that exports were detrimental to a country's economy.

6. Which of the following is <u>not</u> true about the Mercantilists?
   a. Wealth was equated with holdings of gold and silver.
   b. A trade deficit was bad.
   c. A trade surplus was good.
* d. Trade was considered to be an n-sum game.

7. The economic philosophy that favors strict limits on imports and strong support for exports is called:
   a. zero sum.
   b. autarky.
* c. mercantilism.
   d. comparative advantage.

8. The Mercantilists advocated:
   a. lower labor costs to increase exports.
   b. tariffs and quotas to reduce imports.
   c. trade policies designed to cause an inflow of gold.
* d. All of the above

9. The theory that suggests that a country's wealth is based on the amount of gold it holds is called:
   a. absolute advantage.
* b. mercantilism.
   c. comparative advantage.
   d. factor-proportion.

10. Specialization and trade by countries based on absolute advantage results in:
    a. a faster depletion of the world's resources.
    b. products produced at higher cost.
*   c. the world using its resources more efficiently causing an increase in world output.
    d. the world using its resources more efficiently causing a decrease in world output.

11. Absolute advantage is a trading principle that states that:
    a. differences in resource endowments determine comparative advantage.
    b. differences in incomes determine comparative advantage.
*   c. absolute cost differences determine the basis for trade.
    d. relative cost differences determine the basis for trade.

12. The theory of absolute advantage developed by Adam Smith was based on the assumption that:
    a. capital was the only factor of production.
*   b. labor was the only factor of production.
    c. capital and labor were the only factors of production.
    d. absolute advantage was a myth.

13. Smith's theory of absolute advantage is based on:
*   a. the labor theory of value.
    b. opportunity costs.
    c. absolute theory of value.
    d. capital theory of value.

14. What proportion of international trade is based on absolute advantage?
    a. None
*   b. Some
    c. Most
    d. All

15. Which of the following economists showed that international trade was mutually beneficial based on the concept of absolute advantage?
*   a. Adam Smith
    b. David Ricardo
    c. James Ingram
    d. Paul Samuelson

16. Which of the following economists discovered the basic idea of comparative advantage?
    a. John Maynard Keynes
*   b. David Ricardo
    c. Paul Samuelson
    d. Milton Friedman

17. If a country has a(n) _____ advantage in the production of a particular good, its opportunity cost of producing that good is lower than the opportunity cost for the trading partner for producing the same good.
* a. comparative
  b. absolute
  c. interim
  d. mercantilist

18. An economy without international trade is an economy in a state of:
  a. disequilibrium.
  b. economic depression.
* c. autarky.
  d. economic expansion.

19. An economy that does not trade is referred to as an economy in a state of:
  a. macroeconomics.
  b. institutional decay.
* c. autarky.
  d. unnecessary simplification.

20. If a country has lower overall productivity levels than its trading partners, then:
  a. it will be unable to export.
  b. it will have a trade deficit.
  c. it will not be able to obtain gains from trade.
* d. it will have a lower standard of living than its trading partners.

21. To say that the U.S. possesses a comparative advantage over Japan in the production of certain types of music implies that (for a similar quality of music) the:
  a. opportunity cost of production is less in Japan.
  b. absolute cost of production is less in the U.S.
  c. absolute cost of production is less in Japan.
* d. opportunity cost of production is less in the U.S.

22. When economists talk about the gains from trade, they mean that:
  a. no one ever gets hurt by trade.
* b. the benefits of trade outweigh the losses.
  c. business firms benefit from trade but not necessarily individuals.
  d. trade increases government revenue through taxes on imports.

23. According to the theory of comparative advantage, the most important benefit of trade is:
  a. more jobs.
* b. a more efficient allocation of resources.
  c. trade surpluses.
  d. increased exports.

24. When country A uses fewer resources to produce a product than another country, then:
    a. country A has a comparative advantage in the production of the product.
*   b. country A has an absolute advantage in the production of the product.
    c. country A has a comparative disadvantage in the production of the product.
    d. country A has an absolute disadvantage in the production of the product.

25. If a country has an absolute advantage in two products and has a comparative advantage in only one product, what should it do?
    a. Produce both products and export them to maximize its returns.
*   b. Specialize in the product it has a comparative advantage in and import the other.
    c. Produce both products and export the cheapest and import the most expensive.
    d. Produce both products and export the most expensive and import the cheapest.

26. Gains from specialization and trade are basically:
*   a. what a country can consume after trade beyond what it can consume before trade.
    b. short-term gains that must be reinvested immediately.
    c. long-term gains that are not as good as domestic production.
    d. what a country can trade without losing its absolute advantage.

27. Gains from specialization and trade apply to:
    a. both countries that trade.
    b. only the country that imports a product.
    c. only a country that exports a product.
    d. only trade in cloth.

28. If the U.S. exports machines and India exports cloth, which of the following statements would be false?
    a. India can consume more with trade.
    b. The U.S. can consume more with trade.
    c. World production of machines and cloth will rise.
    d. India would be worse off because they would consume less.

Output per unit of Labor

	Scooters	Picture Frames
Holland	8	2
U.S.	5	2

29. Based on the information above, if the two countries specialize and trade the U.S. will export _____ and Holland will export _____ .
    a. scooters, scooters
    b. scooters, picture frames
*   c. picture frames, scooters
    d. picture frames, picture frames

30. With free trade, the minimum limit on the amount paid for one picture frame is _____ scooters.
    a. 0.25
    b. 0.80
*   c. 2.50
    e. 4.00

31. Which of the following is a viable world price for one scooter?
    a. 0.8PF
    b. 2.2PF
*   c. 0.3PF
    d. 8.5PF

Answer questions 32. – 36. based on the following information. A worker in the U.S. can produce either 5 machines per day or 15 yards of cloth. A worker in India can produce either 1 machine per day or 5 yards of cloth.

32. Which of the following statements is false?
    a. India has a comparative advantage in the production of cloth.
    b. The U.S. has a comparative advantage in the production of machines.
    c. The U.S. has an absolute advantage in the production of machines.
*   d. India has a comparative advantage in the production of machines.

33. Which of the following statements is true?
    a. India has an absolute advantage in the production of machines.
    b. The U.S. has an absolute advantage in neither machines nor cloth.
*   c. The U.S. has a comparative advantage in machines.
    d. The U.S. has a comparative advantage in cloth.

34. In India the price of machines in terms of cloth (marginal rate of transformation) is:
*   a. 1M = 5C.
    b. 1M= 4C.
    c. 1M= 3C.
    d. 1M = 2C.

35. In the U.S., the price of machines in terms of cloth (marginal rate of transformation) is:
    a. 1M = 1C.
    b. 1M = 2C.
*   c. 1M = 3C.
    d. 1M = 4C.

36. Trade between India and the U.S. would definitely occur where the price of machines in terms of cloth (terms of trade) is:
   a. 1M = 2C.
* b. 1M = 4C.
   c. 1M = 6C.
   d. 1M = 7C.

37. If Dutch labor can produce 3 soda pops or 5 yogurt cones in a day, while British labor can produce 2 soda pops and 4 yogurt cones, then _____ has a comparative advantage in yogurt cones.
* a. the U.K.
   b. the Netherlands
   c. both the U.K. and the Netherlands
   d. There is not enough information to answer this question.

Assume that a unit of labor in Bulgaria can produce 12 brooms or 15 hats per day. For Albania assume that a unit of labor can produce 18 brooms or 24 hats per day.

38. In Bulgaria the price of brooms in terms of hats is:
* a. 1B = 1.25H.
   b. 1B = 1H.
   c. 1B = .75H.
   d. 12B = 18H.

39. _____ has a comparative advantage in the production of brooms and _____ has a comparative advantage in the production of hats.
   a. Bulgaria, Bulgaria
* b. Bulgaria, Albania
   c. Albania, Albania
   d. Albania, Bulgaria

Answer questions 40 – 43. based on the following information. A worker in the U.S. can produce either 10 chips or 20 sodas per day. A worker in Mexico can produce either 20 chips or 60 sodas per day.

40. Which of the following is true?
   a. The U.S. has an absolute advantage in the production of chips.
   b. The U.S. has a comparative advantage in the production of sodas.
   c. The U.S. has an absolute advantage in the production of sodas.
* d. The U.S. has a comparative advantage in the production of chips.

41. Which of the following is false?
* a. Mexico has an absolute disadvantage in the production of chips.
   b. Mexico has a comparative advantage in the production of sodas.
   c. Mexico has an absolute advantage in the production of chips.
   d. Mexico has a comparative disadvantage in the production of chips.

42. Which of the following is true?
   a. The cost of chips in terms of sodas in the U.S. is 1C=3S.
   b. The cost of chips in terms of sodas in the U.S. is 1/3C=1S.
   c. The cost of chips in terms of sodas in the Mexico is 1C=2S.
* d. The cost of chips in terms of sodas in the U.S. is 1C=2S.

43. Which of the following would be the best ratio for Mexico in terms of the gains from trade?
* a. 1C = 2.1S
   b. 1C = 2.3S
   c. 1C = 2.5S
   d. 1C = 2.7S

Consider the information below for Namibia and Malaysia to answer questions 44. – 46.

Namibian labor:	16 baskets/day or 4 lamps/day
Malaysian labor	20 baskets/day or 8 lamps/day

44. Each country specializes in the good for which it maintains a comparative advantage. In this example, Namibia will specialize in _____ and Malaysia will specialize in_____.
   a. baskets, baskets
* b. baskets, lamps
   c. lamps, lamps
   d. lamps, baskets

45. Which of the following is a viable world price for one lamp?
   a. 1.75 baskets
   b. 2.10 baskets
* c. 3.85 baskets
   d. 4.25 baskets

46. Free trade between these two countries will create winners and losers. For Namibia, the losers will be those associated with _____ production; for Malaysia the losers will be those associated with _____ production.
   a. basket, basket
   b. lamp, lamp
* c. lamp, basket
   d. basket, lamp

47. Opportunity cost is:
   a. the dollar cost of producing the goods.
   b. the dollar price paid for final goods and services.
   c. the dollar price associated with using one good in place of another.
* d. the alternative that must be given up in order to get something else.

48. Which of the following statements is true?
    a. Low wages guarantee that the cost of labor is low.
    b. High wages guarantee that the cost of labor is high.
*   c. The cost of labor is determined by the price and productivity of labor.
    d. Labor always is cheaper in poor countries.

49. Many of the gains from trade occur through a reallocation of a country's existing resources. These are known as the _____ gains from trade.
    a. monetary.
*   b. static
    c. opportunity
    d. dynamic

50. The static gains from trade:
    a. result in an increase in the quality of goods over time.
*   b. are a one time event.
    c. result in the increase in the size of export firms over time.
    d. result in a faster rate of economic growth for countries.

51. Which one of the following is not one of the dynamic gains from trade?
*   a. A country uses its resources less efficiently.
    b. Firms in small countries can grow to the most efficient size.
    c. It may increase the quality of the goods consumed.
    d. Markets in a country may become more competitive.

52. Which of the following is not one of the dynamic gains from trade?
    a. a higher rate of growth of real GDP
*   b. lower product quality
    c. higher product quality
    d. a very effective way to promote competition

53. To gain economic growth from specialization/trade, a country must often reallocate its existing resources. The economic growth that results from this process is often referred to as:
    a. the autarky benefits of specialization.
*   b. the dynamic gains from trade.
    c. the social benefits of saving.
    d. the static gains from trade.

54. Which of the following is not one of the dynamic gains from trade?
    a. greater efficiency in the use of resources
    b. larger gains from trade for small countries
    c. increases in the quality of goods
*   d. a lower rate of growth of GDP

TRUE FALSE QUESTIONS

1. F International trade occurs for very different reasons than interregional trade within a country.

2. F International trade occurs for entirely different reasons than trade among the regions of a large country such as the U.S.

3. T There are a large number of institutional differences between domestic trade and international trade.

4. F The only difference between domestic trade and international trade is the existence of tariffs on imported goods.

5. F Trade between Mississippi and Massachusetts occurs for totally different reasons than trade between Brazil and the U.S.

6. T Prices of traded goods fall in the importing country and rise in the exporting country.

7. F Production of traded goods falls in countries that export them.

8. F Importing countries produce more of the goods they import in order to replace those imports with domestic production.

9. F Abstraction is something that only occurs in economic theory.

10. F The Mercantilists advocated that each country should try to create balanced trade by having exports equal to imports.

11. T The Mercantilists believed that international trade was a zero-sum game.

12. F International trade can best be described as a zero-sum game.

13. T The Mercantilists equated wealth with holdings of gold and silver.

14. T The Mercantilists believed that imports were “bad” because they led to an outflow of gold and silver from the country.

15. T Modern international trade theory really started with the publication of Adam Smith’s *The Wealth of Nations* in 1776.

16. F International trade allows the world to use its resources more efficiently but one country’s gains are another country’s losses.

17. F According to Adam Smith, international trade is based on comparative advantage.

18. F In a two-country world, at least one country must lose from trade.

19. T Specialization and trade increase the world's output of goods and services.

20. T A country's ability to produce a specific good with fewer resources than another country determines whether it has an absolute advantage in producing the good.

21. F A country's ability to produce a specific good with fewer resources than another country determines whether it has a comparative advantage in producing the good.

22. F The only reason why countries conduct international trade is that by doing so they can get things they cannot produce themselves.

23. T If every country specializes in what it produces best, more goods will be produced than if each country tries to produce everything for its own needs.

24. F If a country has an absolute advantage in the production of all products then it makes no sense for it to trade with other countries.

25. F Almost all international trade is based on absolute advantage.

26. T Ricardo explained the law of comparative advantage on the basis of the labor theory of value.

27. F The concept of comparative advantage cannot be applied to sports.

28. T Comparative advantage is based on the opportunity costs of producing particular goods.

29. T World output will be maximized when each country produces according to its comparative advantage.

30. F The labor theory of value assumes that labor is only one of the relevant factors of production.

31. F Comparative advantage only applies to international trade.

32. F If the dollar cost of labor in a developing country is 50% less than in the U.S. and the productivity of that labor is equal to productivity in the U.S. than that labor is really more expensive than U.S. labor.

33. F If wages in Malaysia are lower than wages in the U.S., then it will cost less to produce virtually any product in Malaysia.

34. F A country with high wages cannot compete in world markets with countries where wages are low.

35. F A country should never produce a good in which it has a comparative advantage.

36. F A country should never export a product in which it has a comparative advantage.

37. F The dynamic gains from trade and the static gains from trade are the same thing.

38. F The static gains from trade are the gains a country receives over time.

39. T The dynamic gains from trade are especially important for small countries.

40. F Since the dynamic gains from trade cannot be quantified they are relatively unimportant.

41. T An important dynamic gain from international trade is that trade tends to increase the rate of growth of real GDP.

42. T Free trade is a very effective way to increase the level of competition in the domestic market.

SHORT ANSWER ESSAY

1. Suppose that the U.S. imports cloth from India. Describe what will happen to the price and quantity produced of cloth in both countries.

2. Briefly explain the doctrine of mercantilism.

3. What do football games and rats have to do with economic theory?

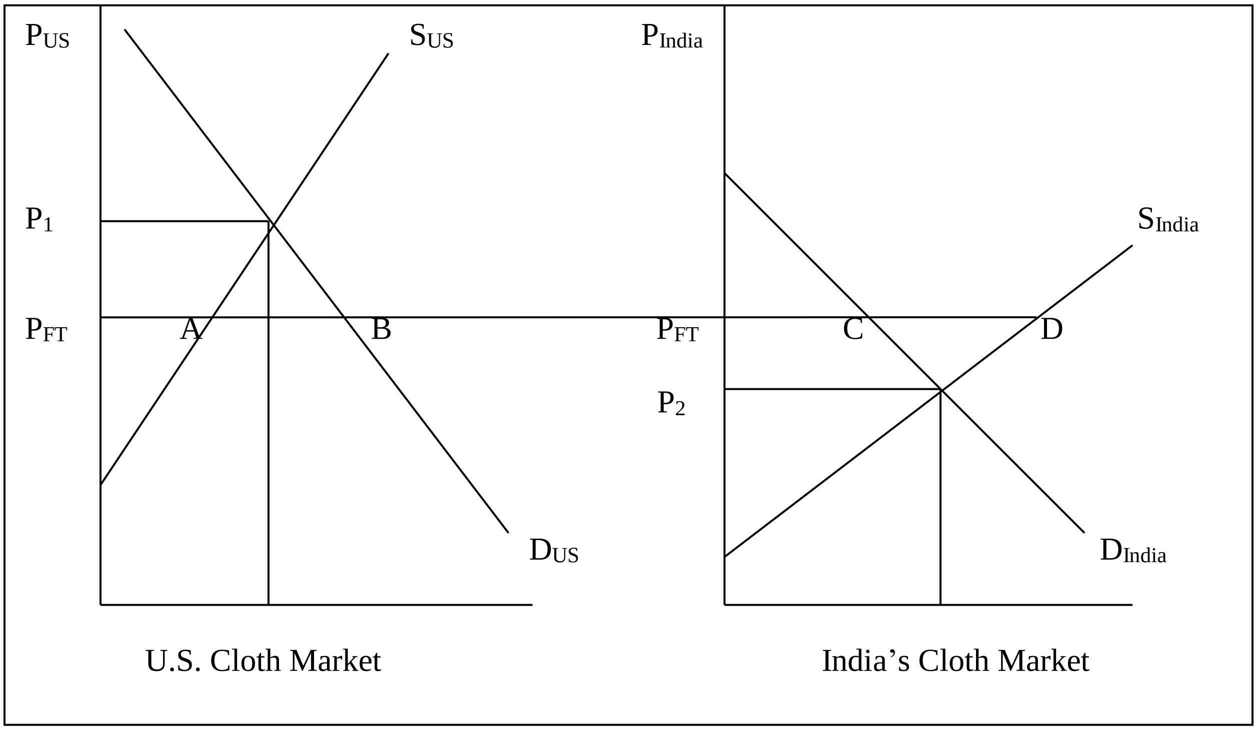
4. Show how a country could have an absolute disadvantage in the production of a product relative to another country and still have a comparative advantage in the production of the product.

5. Explain how trade will tend to emerge along the lines of comparative advantage.

6. List and explain the various dynamic gains from trade.

BRIEF ANSWERS TO SHORT ANSWER ESSAY

1. The results of the U.S. importing cloth from India can be seen in the graph below. In the U.S. the price of cloth will decline from P_1 as the supply of domestic cloth is augmented by imports from India. In India, the price of cloth increases from P_2 as some of the domestic production of cloth is exported to the U.S. The consumption of cloth will rise in the U.S. to point B and fall in India to point C. As the price of cloth falls in the U.S., domestic production will fall to point A and be replaced by imports from India. In India, the production of cloth will rise to point D as the price of cloth rises.



2. The doctrine of Mercantilism is based on the premise that a country can promote its self-interest by discouraging imports and encouraging exports in order to increase its wealth. Underlying the mercantilists' view of international trade was the belief that a person's wealth or a country's wealth was based on their holdings of precious metals, which were gold and silver. Because gold and silver circulated as money, a country could increase its wealth by exporting more goods than it imported. This would occur as: exports created inflows of gold and silver and imports created outflows of gold and silver. When a country's exports exceeded its imports, its stock of gold and silver rose, and the country's wealth increased. To encourage a net inflow of gold and silver, the mercantilists advocated regulating international trade in a way that would promote large exports and small imports, meaning a favorable trade balance. To accomplish this, tariffs and quotas would be combined to restrict imports and cheap raw materials and low wages would be used to encourage low-cost exports.

3. Football games and rats help explain the terms "economic theory" and "rationality." Economic theory is not nearly as "unrealistic" or far from reality as it is frequently perceived. The purpose of any theory, economic or otherwise, is to explain and to predict events. Abstraction and formulating a theory is not exclusive to economics. It is something all of us do frequently. Football games are a good example. How many factors can influence the outcome of a football game? Notice how people focus on important factors and "unrealistically" ignore many things that can influence the game's outcome. By economists' standards, even rats are rational. Researchers have found that rats enjoy both root beer and cherry cola. In an experiment, the rats were "charged" for their consumption of these two soft drinks by having to press on a bar to obtain a drink of one or the other. The researchers were able to change the "price" of the two drinks by changing the number of times the rat had to press each bar to obtain one soda or another.

Not surprisingly, as the price of one drink went up the rat would switch its consumption to the other drink. The rats would consume more of the "cheaper" drink and less of the "expensive" drink. Rats are just as rational in their consumption as individuals are in their consumption. The bottom line is that the assumption of rationality is not very "unrealistic".

4. For example, assume that one U.S. worker can produce either 5 machines or 15 yards of cloth per day, and one Indian worker can produce 1 machine or 5 yards of cloth per day. Comparing the two countries, the U.S. has an absolute advantage in the production of both machines and cloth, and India as an absolute disadvantage in the production of machines and cloth. That is, U.S. workers can produce more machines and more yards of cloth than workers in India. In this example, India's absolute disadvantage is smaller in producing cloth than in producing machines. Using Ricardo's logic, when compared to the U.S., India has a comparative advantage in cloth because its degree of absolute disadvantage is lower, and a comparative disadvantage in machines because its degree of absolute disadvantage is higher.

5. Because the opportunity costs of the same goods differ within each country, both countries can benefit from trade. For example, if the U.S. has a comparative advantage in the production of machines and India a comparative advantage in the production of clothe. Traders can buy cloth in India and ship it to the U.S. to sell at a profit. In the same way, traders can buy machines in the U.S. and ship them to India to sell for a profit there. In a real sense, machine producers in the U.S. are, in a roundabout way, also producing cloth and cloth producers in India are similarly machine producers. However, if the price difference for the same goods in the two countries is large enough then both countries gain from trade. Producers in both countries would receive higher prices for their exports than they would for the same goods in the domestic market. Likewise, foreign consumers would be buying imports at prices lower than those prices they would have to pay for the same goods produced domestically.

6. In addition to the static gains from trade, there may be additional dynamic gains from trade. The dynamic gains from trade are the gains from trade that occur over time because trade causes an increase in a country's economic growth or induces greater efficiency in the country's use of existing resources. First, a country engaging in international trade uses its resources more efficiently by employing resources in the industry with a comparative advantage. This leads to higher real GDP. With faster economic growth, a country can produce even more goods and services over time. The result is that economies that are more open grow faster than the more closed economies, everything else equal. Second, there are greater benefits from trade for small countries. Larger potential gains from trade are available in some industries that are subject to increasing returns to scale. Increasing returns to scale means that as the output of an industry increases, the unit costs of production decline. For industries subject to increasing returns to scale, free trade may allow an industry in a small country the opportunity to expand its production and lower its unit costs. This reduction in costs makes the industry more efficient and allows it to compete in world markets. Third, international trade not only increases the quantity of the goods we consume but may also increase the quality of the goods. Increased competition through trade leads to lower

prices, as well as higher quality and greater diversity of the goods we can consume. Fourth, international trade can be a very effective way to enhance competition in a country’s domestic market. Foreign competition can be an effective remedy for insufficient competition in the domestic market.