

# INTERNATIONAL TRADE



## UNIT I: THEORIES OF INTERNATIONAL TRADE

### LEARNING OUTCOMES

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

- ❑ Define international trade and describe how it differs from internal trade
- ❑ Elucidate the arguments in favour of and against liberal trade
- ❑ Explain the mercantilists' views on international trade  
Illustrate how trade can be based on absolute advantage
- ❑ Describe the Ricardian theory of comparative advantage
- ❑ Explain the basis of trade according to modern theory of trade

**UNIT OVERVIEW****1.1 INTRODUCTION**

International trade is the exchange of goods and services as well as resources between countries. It involves transactions between residents of different countries. As distinguished from domestic trade or internal trade which involves exchange of goods and services within the domestic territory of a country using domestic currency, international trade involves transactions in multiple currencies. Compared to internal trade, international trade has greater complexity as it involves heterogeneity of customers and currencies, differences in legal systems, more elaborate documentation, diverse restrictions in the form of taxes, regulations, duties, tariffs, quotas, trade barriers, standards, restraints to movement of specified goods and services and issues related to shipping and transportation. At present, liberal international trade is an integral part of international relations and has become an important engine of growth in developed as well as developing countries.

While some economists and policy makers argue that there are net benefits from keeping markets open to international trade and investments, others feel that trade generates a number of adverse consequences on the welfare of citizens. As students of Economics, we need to have an objective understanding of the claims

put forth by both sections. We shall first examine the arguments in support of international trade.

- (i) International trade is a powerful stimulus to economic efficiency and contributes to economic growth and rising incomes. The wider market made possible owing to trade induces companies to reap the quantitative and qualitative benefits of extended division of labour. As a result, they would enlarge their manufacturing capabilities and benefit from economies of large scale production. The gains from international trade are reinforced by the increased competition that domestic producers are confronted with on account of globalization of production and marketing requiring businesses to compete against global businesses. Competition from foreign goods compels manufacturers, especially in developing countries, to enhance efficiency and profitability by adoption of cost reducing technology and business practices. Efficient deployment of productive resources to their best uses is a direct economic advantage of foreign trade. Greater efficiency in the use of natural, human, industrial and financial resources ensures productivity gains. Since international trade also tends to decrease the likelihood of domestic monopolies, it is always beneficial to the community.
- (ii) Trade provides access to new markets and new materials and enables sourcing of inputs and components internationally at competitive prices. This reflects in innovative products at lower prices and wider choice in products and services for consumers. Also, international trade enables consumers to have access to wider variety of goods and services that would not otherwise be available. It also enables nations to acquire foreign exchange reserves necessary for imports which are crucial for sustaining their economies.
- (iii) International trade enhances the extent of market and augments the scope for mechanization and specialisation. Trade necessitates increased use of automation, supports technological change, stimulates innovations, and facilitates greater investment in research and development and productivity improvement in the economy.
- (iv) Exports stimulate economic growth by creating jobs, which could potentially reduce poverty and augmenting factor incomes and in so doing raising standards of livelihood and overall demand for goods and services. Trade also provides greater stimulus to innovative services in banking, insurance, logistics, consultancy services etc.

- (v) Employment generating investments, including foreign direct investment, inevitably follow trade. For emerging economies, improvement in the quality of output of goods and services, superior products, finer labour and environmental standards etc. enhance the value of their products and enable them to move up the global value chain.
- (vi) Opening up of new markets results in broadening of productive base and facilitates export diversification so that new production possibilities are opened up. Countries can gainfully dispose off their surplus output and, thus, prevent undue fall in domestic prices caused by overproduction. Trade also allows nations to maintain stability in prices and supply of goods during periods of natural calamities like famine, flood, epidemic etc.
- (vii) Trade can also contribute to human resource development, by facilitating fundamental and applied research and exchange of know-how and best practices between trade partners.
- (viii) Trade strengthens bonds between nations by bringing citizens of different countries together in mutually beneficial exchanges and, thus, promotes harmony and cooperation among nations.

Despite being a dynamic force which has enormous potential to generate economic overall gains, liberal global trade and investments are often criticized as detrimental to national interests. The major arguments put forth against trade openness are:

- (i) Possible negative labour market outcomes in terms of labour-saving technological change that depress demand for unskilled workers, loss of labourers' bargaining power, downward pressure on wages of semi skilled and unskilled workers and forced work under unfair circumstances and unhealthy occupational environments.
- (ii) International trade is often not equally beneficial to all nations. Potential unequal market access and disregard for the principles of fair trading system may even amplify the differences between trading countries, especially if they differ in their wealth. Economic exploitation is a likely outcome when underprivileged countries become vulnerable to the growing political power of corporations operating globally. The domestic entities can be easily outperformed by financially stronger transnational companies.
- (iii) International trade is often criticized for its excessive stress on exports and profit-driven exhaustion of natural resources due to unsustainable production and consumption. Substantial environmental damage and

exhaustion of natural resources in a shorter span of time could have serious negative consequences on the society at large.

- (iv) Probable shift towards a consumer culture and change in patterns of demand in favour of foreign goods which are likely to occur in less developed countries may have adverse effect on the development of domestic industries and may even threaten the survival of infant industries. Trade cycles and the associated economic crises occurring in different countries are also likely to get transmitted rapidly to other countries.
- (v) Risky dependence of underdeveloped countries on foreign nations impairs economic autonomy and endangers their political sovereignty. Such reliance often leads to widespread exploitation and loss of cultural identity. Substantial dependence may also have severe adverse consequences in times of wars and other political disturbances.
- (vi) Welfare of people may be ignored or jeopardized for the sake of profit. Excessive exports may cause shortages of many commodities in the exporting countries and lead to high inflation (e.g. onion price rise in 2014). Also, import of harmful products may cause health hazards and environmental damage. (e.g. Chinese products).
- (vii) Too much export orientation may distort actual investments away from the genuine investment needs of a country.
- (viii) Instead of cooperation among nations, trade may breed rivalry on account of severe competition
- (ix) Finally, there is often lack of transparency and predictability in respect of many aspects related to trade policies of trading partners. There are also many risks in trade which are associated with changes in governments' policies of participating countries, such as imposition of an import ban or trade embargoes.



## 1.2 IMPORTANT THEORIES OF INTERNATIONAL TRADE

You might have noticed that many goods and services are imported by us because they are simply not produced in our country for various reasons and therefore not available domestically. However, we do import many things which can be produced or are being produced within our country. Why do we do so? Is it beneficial to

engage in international trade? The theories of international trade which we discuss in the following sections provide answers to these and other related questions.

### 1.2.1 The Mercantilists' View of International Trade

Mercantilism, which was the policy of Europe's great powers, was based on the premise that national wealth and power are best served by increasing exports and collecting precious metals in return. Mercantilists also believed that the more gold and silver a country accumulates, the richer it becomes. Mercantilism advocated maximizing exports in order to bring in more "specie" (precious metals) and minimizing imports through the state imposing very high tariffs on foreign goods. This view argues that trade is a 'zero-sum game', with winners who win does so only at the expense of losers and one country's gain is equal to another country's loss, so that the net change in wealth or benefits among the participants is zero. The arguments put forth by mercantilists were later proved to have many shortcomings by later economists. Although it is still very important theory which explains policies followed by many big and fast growing economies in Asia.

### 1.2.2 The Theory of Absolute Advantage

Adam Smith was the first to put across the possibility that international trade is not a zero-sum game. According to Adam Smith who supported unrestricted trade and free international competition, absolute cost advantage is the determinant of mutually beneficial international trade. The absolute cost advantage theory points out that a country will specialize in the production and export of a commodity in which it has an absolute cost advantage. In other words, exchange of goods between two countries will take place only if each of the two countries can produce one commodity at an absolutely lower production cost than the other country.

Smith's thoughts on the principle of division of labour constitute the basis for his theory of international trade and therefore, the value of goods is determined by measuring the labour incorporated in them. The theory is generally presented with an example of a hypothetical two countries and two commodities model (2x2 model). Absolute advantage exists between nations when they differ in their ability to produce goods. Each nation can produce one good with less expenditure of human labour or more cheaply than the other. As a result, each nation has an absolute advantage in the production of one good. Absolute advantage can be explained with a simple numerical example given in table 4.1.1:

**Table 4.1.1**  
**Output per Hour of Labour**

Commodity	Country A	Country B
Wheat (bushels/hour)	6	1
Cloth (yards/hour)	4	5

As can be seen from the above table, one hour of labour time produces 6 bushels and 1 bushel of wheat respectively in country A and country B. On the other hand, one hour of labour time produces 4 yards of cloth in country A and 5 in country B. Country A is more efficient than country B, or has an absolute advantage over country B in production of wheat. Similarly, country B is more efficient than country A, or has an absolute advantage over country A in the production of cloth. If both nations can engage in trade with each other, each nation will specialize in the production of the good it has an absolute advantage in and obtain the other commodity through international trade. Therefore, country A would specialise completely in production of wheat and country B in cloth.

If country A exchanges six bushels of wheat (6W) for six yards of country B's cloth (6C), then country A gains 2C or saves half an hour or 30 minutes of labour time (since the country A can only exchange 6W for 4C domestically). Similarly, the 6W that country B receives from country A is equivalent to or would require six hours of labour time to produce in country B. These same six hours can produce 30C in country B (6 hours x 5 yards of cloth per hour). By being able to exchange 6C (requiring a little over one hour to produce in the country B) for 6W, country B gains 24C, or saves nearly five hours of work.

This example shows trade is advantageous, although gains may not be distributed equally, because their given resources are utilised more efficiently, and, therefore, both countries can produce larger quantities of commodities which they specialize in. By specialising and trading freely, global output is, thus, maximized and more of both goods are available to the consumers in both the countries. If they specialise but do not trade freely, country A's consumers would have no wheat, and country B's consumers would have no cloth. That is not desirable situation.

The theory discussed above gives us the impression that mutually gainful trade is possible only when one country has absolute advantage and the other has absolute disadvantage in the production of at least one commodity. What happens if a country had higher productivity in both commodities compared to another

country? Let us now think of a situation where country A makes both wheat and cloth with fewer resources than country B. In other words, country A has absolute advantage in the production of both commodities and country B has absolute disadvantage in the production of both commodities. This is the question that Ricardo attempted to answer when he formalized the concept of 'comparative advantage' to espouse the argument that even when one country is technologically superior in both goods, it could still be advantageous for them to trade.

### 1.2.3 The Theory of Comparative Advantage

David Ricardo developed the classical theory of comparative advantage in his book 'Principles of Political Economy and Taxation' published in 1817. The law of comparative advantage states that even if one nation is less efficient than (has an absolute disadvantage with respect to) the other nation in the production of all commodities, there is still scope for mutually beneficial trade. The first nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which its absolute disadvantage is greater (this is the commodity of its comparative disadvantage). Comparative advantage differences between nations are explained by exogenous factors which could be due to the differences in national characteristics. Labour differs in its productivity internationally and different goods have different labour requirements, so comparative labor productivity advantage was Ricardo's predictor of trade.

The theory can be explained with a simple example given in table 4.1.2:

**Table 4.1.2**  
**Output per Hour of Labour**

Commodity	Country A	Country B
Wheat (bushels/hour)	6	1
Cloth (yards/hour)	4	2

Table 4.1.2 differs from table 4.1.1 only in one respect; i.e, in this example, country B can produce only two yards of cloth per hour of labour. Country B has now absolute disadvantage in the production of both wheat and cloth. However, since B's labour is only half as productive in cloth but six times less productive in wheat compared to country A, country B has a comparative advantage in cloth. On the other hand, country A has an absolute advantage in both wheat and cloth with



respect to the country B, but since its absolute advantage is greater in wheat (6:1) than in cloth (4:2), country A has a comparative advantage in production and exporting wheat. In a two-nation, two-commodity world, once it is established that one nation has a comparative advantage in one commodity, then the other nation must necessarily have a comparative advantage in the other commodity. Put in other words, country A's absolute advantage is greater in wheat, and so country A has a comparative advantage in producing and exporting wheat. Country B's absolute disadvantage is smaller in cloth, so its comparative advantage lies in cloth production. According to the law of comparative advantage, both nations can gain if country A specialises in the production of wheat and exports some of it in exchange for country B's cloth. Simultaneously, country B should specialise in the production of cloth and export some of it in exchange for country A's wheat.

How do these two countries gain from trade by each country specializing in the production and export of the commodity of its comparative advantage? We need to show that both nations can gain from trade even if one of them (in this case country B) is less efficient than the other in the production of both commodities.

Assume that country A could exchange 6W for 6C with country B. Then, country A would gain 2C (or save half an hour of labour time) since the country A could only exchange 6W for 4C domestically. We need to show now that country B would also gain from trade. We can observe from table 4.1.2 that the 6W that the country B receives from the country A would require six hours of labour time to produce in country B. With trade, country B can instead use these six hours to produce 12C and give up only 6C for 6W from the country A. Thus, the country B would gain 6C or save three hours of labour time and country A would gain 2C. However, the gains of both countries are not likely to be equal.

However, we need to recognize that this is not the only rate of exchange at which mutually beneficial trade can take place. Country A would gain if it could exchange 6W for more than 4C from country B; because 6W for 4C is what it can exchange domestically (both require the same one hour labour time). The more C it gets, the greater would be the gain from trade. Conversely, in country B,  $6W = 12C$  (in the sense that both require 6 hours to produce). Anything less than 12C that country B must give up to obtain 6W from country A represents a gain from trade for country B. To summarize, country A gains to the extent that it can exchange 6W for more than 4C from the country B. country B gains to the extent that it can give up less than 12C for 6W from country A. Thus, the range for mutually advantageous trade is  $4C < 6W < 12C$ .

The spread between  $12C$  and  $4C$  (i.e.,  $8C$ ) represents the total gains from trade available to be shared by the two nations by trading  $6W$  for  $6C$ . The closer the rate of exchange is to  $4C = 6W$  (the domestic, or internal rate in country A), the smaller is the share of the gain going to country A and the larger is the share of the gain going to country B. Alternatively, the closer the rate of exchange is to  $6W = 12C$  (the domestic or internal rate in country B), the greater is the gain of country A relative to that of country B. However, if the absolute disadvantage that one nation has with respect to another nation is the same in both commodities, there will be no comparative advantage and no trade.

Ricardo based his law of comparative advantage on the 'labour theory of value', which assumes that the value or price of a commodity depends exclusively on the amount of labour going into its production. This is quite unrealistic because labour is not the only factor of production, nor is it used in the same fixed proportion in the production of all commodities.

In 1936, Haberler resolved this issue when he introduced the opportunity cost concept from Microeconomic theory to explain the theory of comparative advantage in which no assumption is made in respect of labour as the source of value. Opportunity cost is basically the value of the forgone option. It is the 'real' cost in microeconomic terms, as opposed to cost given in monetary units. According to the opportunity cost theory, the cost of a commodity is the amount of a second commodity that must be given up to release just enough resources to produce one extra unit of the first commodity. The opportunity cost of producing one unit of good X in terms of good Y may be computed as the amount of labour required to produce one unit of good X divided by the amount of labour required to produce one unit of good Y. That is, how much Y do we have to give up in order to produce one more unit of good X. Logically, the nation with a lower opportunity cost in the production of a commodity has a comparative advantage in that commodity (and a comparative disadvantage in the second commodity).

In the above example, we find that country A must give up two-thirds of a unit of cloth to release just enough resources to produce one additional unit of wheat domestically. Therefore, the opportunity cost of wheat is two-thirds of a unit of cloth (i.e.,  $1W = 2/3C$  in country A). Similarly, in country B, we find that  $1W = 2C$ , and therefore, the opportunity cost of wheat (in terms of the amount of cloth that must be given up) is lower in country A than in country B, and country A would have a comparative (cost) advantage over country B in wheat. In a two-nation, two-commodity world, if country A has a comparative advantage in wheat, then country B will have a comparative advantage in cloth. Therefore, country A should consider

specializing in producing wheat and export some of it in exchange for cloth produced in country B. By such specialization and trade, both nations will be able to consume more of both commodities than what would have been possible without trade.

In summary, international differences in relative factor-productivity are the cause of comparative advantage and a country exports goods that it produces relatively efficiently. This points to a tendency towards complete specialization in production. Ricardo demonstrated that for two nations without input factor mobility, specialization and trade could result in increased total output and lower costs than if each nation tried to produce in isolation. Trade generates welfare gains and both countries can potentially gain from trade. Therefore, international trade need not be a zero-sum game.

However, the Ricardian theory of comparative advantage suffers from many limitations. Its emphasis is on supply conditions and excludes demand patterns. Moreover, the theory does not examine why countries have different costs. The theory of comparative advantage also does not answer the important question: Why does a nation have comparative advantage in the production of a commodity and comparative disadvantage in the production of another? The answer to this question is provided by the Heckscher-Ohlin theory.

### 1.2.4 The Heckscher-Ohlin Theory of Trade

The Heckscher-Ohlin theory of trade, (named after two Swedish economists, Eli Heckscher and his student Bertil Ohlin), also referred to as Factor-Endowment Theory of Trade or Modern Theory of Trade, is considered as a very important theory of international trade. In view of the contributions made by P. A. Samuelson, this theory is also sometimes referred to as Heckscher-Ohlin-Samuelson theorem.

The Heckscher-Ohlin (H-O) model studies the case that two countries have different factor endowments under identical production function and identical preferences. The difference in factor endowment results in two countries having different factor prices in the beginning. Consequently, H-O model implies that the two countries will have different cost functions. The Heckscher-Ohlin theory of trade states that comparative advantage in cost of production is explained exclusively by the differences in factor endowments of the nations. In a general sense of the term, 'factor endowment' refers to the overall availability of usable resources including both natural and man-made means of production. Nevertheless, in the exposition of the modern theory, only the two most important factors—labour and capital—are taken into account.

According to this theory, international trade is but a special case of inter-regional trade. Different regions have different factor endowments, that is, some regions have abundance of labour, but scarcity of capital; whereas other regions have abundance of capital, but scarcity of labour. Different goods have different production functions, that is, factors of production are combined in different proportions to produce different commodities. While some goods are produced by employing a relatively larger proportion of labour and relatively small proportion of capital, other goods are produced by employing a relatively small proportion of labour and relatively large proportion of capital. Thus, each region is suitable for the production of those goods for whose production it has relatively plentiful supply of the requisite factors. A region is not suitable for production of those goods for whose production it has relatively scarce or zero supply of essential factors. Hence different regions have different capacity to produce different commodities. Therefore, difference in factor endowments is the main cause of international trade as well as inter-regional trade. According to Ohlin, the immediate cause of inter-regional trade is that goods can be bought cheaper in terms of money than they can be produced at home and this is the case of international trade as well. The cause of difference in the relative prices of goods is the difference the amount of factor endowments, like capital and labour, between two countries.

The theory states that a country's exports depend on its resources endowment i.e. whether the country is capital-abundant or labour-abundant. If a country is a capital abundant one, it will produce and export capital-intensive goods relatively more cheaply than another country. Likewise, a labour-abundant country will produce and export labour-intensive goods relatively more cheaply than another country. The labour-abundant countries have comparative cost advantage in the production of goods which require labour-intensive technology and by the same reasoning, capital-abundant countries have comparative cost advantage in the production of goods that need capital-intensive technology.

The Heckscher-Ohlin theory of foreign trade can be stated in the form of two theorems namely, Heckscher-Ohlin Trade Theorem and Factor-Price Equalization Theorem.

The Heckscher-Ohlin Trade Theorem establishes that a country tends to specialize in the export of a commodity whose production requires intensive use of its abundant resources and imports a commodity whose production requires intensive use of its scarce resources.

The Factor-Price Equalization Theorem states that international trade tends to equalize the factor prices between the trading nations. In the absence of foreign trade, it is quite likely that factor prices are different in different countries. International trade equalizes the absolute and relative returns to homogenous factors of production and their prices. In other words, the wages of homogeneous labour and returns to homogeneous capital will be the same in all those nations which engage in trading. The factor price equalisation theorem says that if the prices of the output of goods are equalised between countries engaged in free trade, then the price of the input factors will also be equalised between countries. This implies that the wages and rents will converge across the countries with free trade, or in other words, trade in goods is a perfect substitute for trade in factors. The Heckscher-Ohlin theorem, thus, postulates that foreign trade eliminates the factor price differentials. The factor price equalization theorem is in fact a corollary to the Heckscher-Ohlin trade theory. It holds only so long as Heckscher-Ohlin Theorem holds.

The basic assumption of the Heckscher-Ohlin theorem is that the two countries share the same production technology and that markets are perfectly competitive. The opening up to trade for a labour-abundant country will increase the price of labour-intensive goods, say clothes, and, thus, lead to an expansion of clothes production. As there is demand for exports of clothes in foreign markets, the demand for factors of production increases in the clothes sector. Because clothes are labour-intensive goods, an increasing demand for labour in the factor market will attract labour from the capital-intensive industry, say machine tools. The expanding clothes industry absorbs relatively more labour than the amount released by the contracting machine tools industry. The price of labour goes up, and whilst its relative price increases, the relative price of capital declines. As a result, the factors of production will become more capital-intensive in both sectors leading to a decline in the marginal productivity of capital and an increase in that of labour in both sectors. Similarly, when country B increases its specialization in the production of capital-intensive commodity its demand for capital increases causing capital returns to increase in relation to wage rate. This means that specialization leads to change in relative factor prices.

When the prices of the output of goods are equalized between countries as they move to free trade, then the prices of the factors (capital and labor) will also be equalized between countries. It means that product mobility and factor mobility become perfect substitutes. Whichever factor receives the lowest price before two countries integrate economically and effectively become one market will therefore

tend to become more expensive relative to other factors in the economy, while those with the highest price will tend to become cheaper.

The table 4.1.3 presents, though not exhaustive, a comparison of the theory of comparative costs and modern theory.

**Table 4.1.3**

**Comparison of Theory of Comparative Costs and Modern Theory**

<b>Theory of Comparative Costs</b>	<b>Modern Theory</b>
The basis is the difference between countries is comparative costs	Explains the causes of differences in comparative costs as differences in factor endowments
Based on labour theory of value	Based on money cost which is more realistic.
Considered labour as the sole factor of production and presents a one-factor (labour) model	Widened the scope to include labour and capital as important factors of production. This is 2-factor model and can be extended to more factors.
Treats international trade as quite distinct from domestic trade	International trade is only a special case of inter-regional trade.
Studies only comparative costs of the goods concerned	Considers the relative prices of the factors which influence the comparative costs of the goods
Attributes the differences in comparative advantage to differences in productive efficiency of workers	Attributes the differences in comparative advantage to the differences in factor endowments.
Does not take into account the factor price differences	Considers factor price differences as the main cause of commodity price differences
Does not provide the cause of differences in comparative advantage.	Explains the differences in comparative advantage in terms of differences in factor endowments.
Normative; tries to demonstrate the gains from international trade	Positive; concentrates on the basis of trade

### 1.2.5 New Trade Theory – An Introduction

**New Trade Theory** (NTT) is an economic theory that was developed in the 1970s as a way to understand international trade patterns. NTT came about to help us understand why developed and big countries are trade partners when they are trading similar goods and services. These countries constitute more than 50% of world trade.

This is particularly true in key economic sectors such as electronics, IT, food, and automotive. We have cars made in India, yet we purchase many cars made in other countries.

These are usually products that come from large, global industries that directly impact international economies. The mobile phones we use are a good example. India produces them and also imports them. NTT argues that, because of substantial economies of scale and network effects, it pays to export phones to sell in another country. Those countries with the advantages will dominate the market, and the market takes the form of **monopolistic competition**.

Monopolistic competition tells us that the firms are producing a similar product that isn't exactly the same, but awfully close. According to NTT, two key concepts give advantages to countries that import goods to compete with products from the home country:

- **Economies of Scale:** As a firm produces more of a product its cost per unit keeps going down. So if the firm serves domestic as well as foreign market instead of just one, then it can reap the benefit of large scale of production consequently the profits are likely to be higher.
- **Network effects** are the way one person's value of a good or service is affected by the value of that good or service to others. The value of the product or service is enhanced as the number of individuals using it increases. This is also referred to as the 'bandwagon effect'. Consumers like more choices, but they also want products and services with high utility, and the network effect offers increased utility from these products over others. A good example will be Mobile App such as WhatsApp and software like Microsoft Windows.

## SUMMARY

- International trade is the exchange of goods and services as well as resources between countries and involves greater complexity compared to internal trade
- Trade can be a powerful stimulus to economic efficiency, contributes to economic growth and rising incomes, enlarges manufacturing capabilities, ensures benefits from economies of large scale production, and enhances competitiveness and profitability by adoption of cost reducing technology and business practices.
- Efficient deployment of productive resources to their best uses, productivity gains, decrease the likelihood of domestic monopolies, cost effective sourcing of inputs and components internationally, innovative products at lower prices, wider choice in products and services for consumers are also claimed as benefits of trade
- Enhanced foreign exchange reserves, increased scope for mechanization and specialisation, research and development, creation of jobs, reduction in poverty, augmenting factor incomes, raising standards of livelihood, increase in overall demand for goods and services and greater stimulus to innovative services are other benefits
- There are also other possible positive outcomes in the form of prospects of employment generating investments, improvement in the quality of output, superior products, labour and environmental standards, broadening of productive base, export diversification, stability in prices and supply of goods, human resource development and strengthening of bonds between nations.
- The arguments against trade converge on negative labour market outcomes, economic exploitation, profit-driven exhaustion of natural resources, shift towards a consumer culture, risky dependence, shortages resulting in inflation, disregard for welfare of people, quick transmission of trade cycles, rivalries and risks in trade associated with changes in governments' policies of participating countries.
- Mercantilism advocated maximizing exports in order to bring in more precious metals and minimizing imports through the state imposing very high tariffs on foreign goods.



- According to Adam Smith's Absolute Cost Advantage theory, a country will specialize in the production and export of a commodity in which it has an absolute cost advantage.
- Ricardo's theory of comparative advantage states that a nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which its absolute disadvantage is greater (this is the commodity of its comparative disadvantage).
- Haberler resolved the issue of dependence on labour alone in the case of theory of comparative advantage when he introduced the opportunity cost concept. Opportunity cost which is the value of the forgone option.
- The Heckscher-Ohlin theory of trade, also referred to as Factor-Endowment Theory of Trade or Modern Theory of Trade, states that comparative advantage in cost of production is explained exclusively by the differences in factor endowments
- A country tends to specialize in the export of a commodity whose production requires intensive use of its abundant resources and imports a commodity whose production requires intensive use of its scarce resources.
- Accordingly, a capital abundant country will produce and export capital-intensive goods relatively more cheaply and a labour-abundant country will produce and export labour-intensive goods relatively more cheaply than another country
- The Factor-Price Equalization Theorem states that international trade equalizes the factor prices between the trading nations. Therefore, with free trade, wages and returns on capital will converge across the countries.
- NTT is the latest entrant to explain the rising proportion of world trade in the developed world and bigger developing economies (such as BRICS) which trade in similar products. These countries constitute more than 50% of world trade.

## TEST YOUR KNOWLEDGE

### I Multiple Choice Type Questions

1. The theory of absolute advantage states that
  - (a) national wealth and power are best served by increasing exports and decreasing imports
  - (b) nations can increase their economic well-being by specializing in the production of goods they produce more efficiently than anyone else
  - (c) that the value or price of a commodity depends exclusively on the amount of labour going into its production and therefore factor prices will be the same
  - (d) differences in absolute advantage explains differences in factor endowments in different countries
2. Which of the following theories advocates that countries should produce those goods for which it has the greatest relative advantage?
  - (a) Modern theory of international trade
  - (b) The factor endowment theory
  - (c) The Heckscher-Ohlin Theory
  - (d) None of the above
3. Which of the following does not represent a difference between internal trade and international trade?
  - (e) transactions in multiple currencies
  - (f) homogeneity of customers and currencies
  - (g) differences in legal systems
  - (a) none of the above
4. Which of the following holds that a country can increase its wealth by encouraging exports and discouraging imports
  - (a) Capitalism
  - (b) Socialism
  - (c) Mercantilism

(d) Laissez faire

5. Given the number of labour hours to produce cloth and grain in two countries, which country should produce grain?

**Labour cost (hours) for production of one unit**

	Country A	Country B
Cloth	40	80
Grain	80	40

- (a) Country A
- (b) Country B
- (c) Neither A nor B
- (d) Both A and B
6. According to the theory of comparative advantage
- (a) trade is a zero-sum game so that the net change in wealth or benefits among the participants is zero.
- (b) trade is not a zero-sum game so that the net change in wealth or benefits among the participants is positive
- (c) nothing definite can be said about the gains from trade
- (d) gains from trade depends upon factor endowment and utilization
7. Given the number of labour hours to produce wheat and rice in two countries and that these countries specialise and engage in trade at a relative price of 1:1 what will be the gain of country X ?

**Labour cost (hours) for production of one unit**

	Wheat	Rice
Country X	10	20
Country Y	20	10

- (a) 20 labour hours
- (b) 10 labour hours
- (c) 30 labour hours

(d) Does not gain anything

8. Assume India and Bangladesh have the unit labour requirements for producing tables and mats shown in the table below. It follows that:

**Labour cost (hours) for production of one unit**

	India	Bangladesh
Tables	3	8
Mats	2	1

- (a) Bangladesh has a comparative advantage in mats
- (b) India has a comparative advantage in tables
- (c) Bangladesh has an absolute advantage in mats
- (d) All the above are true
9. Comparative advantage refers to
- (a) a country's ability to produce some good or service at the lowest possible cost compared to other countries
- (b) a country's ability to produce some good or service at a lower opportunity cost than other countries.
- (c) Choosing a productive method which uses minimum of the abundant factor
- (d) (a) and (b) above
10. Ricardo explained the law of comparative advantage on the basis of
- (a) opportunity costs
- (b) the law of diminishing returns
- (c) economies of scale
- (d) the labour theory of value

## II Short Answer Type Questions

1. Define international trade?
2. What is meant by opportunity cost ?
3. How does trade increase economic efficiency?

4. What is meant by absolute advantage?
5. What is the major idea behind Mercantilist's view of trade?
6. What is the essence of the theory of absolute advantage?
7. Mention the core principle of the theory of comparative advantage.
8. What is meant by 'factor endowment' in the theory of international trade?
9. What is the crux of Heckscher-Ohlin theory of international trade?
10. What do you understand by 'factor-price equalization' in the context of international trade?

### III Long Answer Type Questions

1. Define international trade and describe how it differs from internal trade?
2. Critically examine the arguments for and against international trade?
3. Do you think international trade is always beneficial? Substantiate your arguments?
4. What are the major arguments against liberal trade?
5. Do you think the developing countries will be disproportionately disadvantaged if they engage in liberal trade?
6. What consequences do you foresee for the industrial sector if a nation has greater openness of trade?
7. Using Ricardian model, explain how two countries can gain from trade? What does the Ricardian model suggest regarding the effect of trade?
8. What are the underlying reasons that explain the differences among nations? Explain the predictions from different theories in international trade.
9. Describe the reasons why international trade is opposed by many people?
10. "Specialization in production always increases the prosperity of a country" Do you agree with the statement? Substantiate your answer.
11. Explain the Heckscher-Ohlin theory of international trade.
12. Compare the classical and modern theories of international trade.
13. What is the basis for international trade according to Ricardo?

14. What are the arguments put forth in the modern theory of international trade?
15. Describe the reasons for the superiority of Heckscher Ohlin theory of international trade over the classical theory of international trade.

#### IV Application Oriented Questions

1. The price index for exports of Country A in year 2012 (2000 base-year), was 116.1 and the price index for Country A's imports was 120.2 (2000 base-year)
  - (i) What do these figures mean?
  - (ii) Calculate the index of terms of trade for Country A
  - (iii) How do you interpret the index of terms of trade for Country A?
2. The table below shows the number of labour hours required to produce wheat and cloth in two countries X and Y.

Commodity	Country X	Country Y
1 unit of cloth	4	1.0
1 unit of wheat	2	2.5

- (i) Compare the productivity of labour in both countries in respect of both commodities
- (ii) Which country has absolute advantage in the production of wheat?
- (iii) Which country has absolute advantage in the production of cloth?
- (iv) If there is trade, which commodity should these countries produce?
- (v) What are the opportunity costs of each commodity?

## ANSWERS/HINTS

### I Multiple Choice Type Questions

1. (b)    2. (d)    3. (b)    4. (c)    5. (b)    6. (b)
7. (b)    8. (d)    9. (b)    10. (d)

### II Short Answer Type Questions

1. International trade is the exchange of goods and services as well as resources between countries and involves transactions between residents of different countries.

2. The value of the best foregone alternative that is given up when something is chosen. In production, it is the amount of a second commodity that must be given up to release just enough resources to produce one more unit of the first commodity.
3. Economic efficiency increases due to quantitative and qualitative benefits of extended division of labour, economies of large scale production, betterment of manufacturing capabilities, increased competitiveness and profitability by adoption of cost reducing technology and business practices and decrease in the likelihood of domestic monopolies. Efficient deployment of productive resources natural, human, industrial and financial resources ensures productivity gains.
4. The ability of a country to produce a good at a lower cost, in terms of labour, than another country.
5. Encourage exports and prevent imports and accumulate as much precious metals as possible to become wealthy
6. A trade theory which holds that nations can increase their economic well-being by specializing in goods that they can produce more efficiently than anyone else.
7. A nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which it's absolute disadvantage is greater (this is the commodity of its comparative disadvantage).
8. In a general sense of the term, 'factor endowment' which explains comparative advantage in cost of production, refers to the overall availability of usable resources including both natural and man-made means of production. Differences between countries are explained exclusively by the differences in factor endowments of the nations.
9. A country tends to specialize in the export of a commodity whose production requires intensive use of its abundant resources and imports a commodity whose production requires intensive use of its scarce resources.
10. International trade equalizes the factor prices between trading nations; implies that the wages and rents will converge across the countries with free trade, that if the prices of the output of goods are equalised between

countries engaged in free trade, then the price of the input factors will also be equalised between countries.

#### IV Application Oriented Question

1. (i) The price index for exports of Country A in year 2012 (2000 base-year), was 116.1 means that compared to year 2000, its export prices were 16.1 percent above the 2000 base year prices.
- (ii) The price index for Country A's imports was 120.2 in year 2012(2000 base-year), means that compared to year 2000, its import prices were 20.2 percent above the 2000 base year prices.
- (iii) The index of the terms of trade for Country A in 2012 would be calculated as follows:

$$\text{Terms of Trade} = \frac{\text{Price of a country's exports}}{\text{Price index of its imports}} \times 100 = (116.1/120.2) \times 100 = 96.6$$

"Terms of trade" is ratio of the price of a country's export commodity to the price of its import commodity. The figure 96.6 means that each unit of country A's exports in 2012 exchanged for 3.4 percent ( $3.4 = 100 - 96.6$ ) fewer units of imports than in the base year.

2. (i) Productivity of labour in both countries in respect of both commodities

Productivity of Labour	Country X	Country Y
Units of cloth per hour	0.25	1.0
Units of wheat per hour	0.5	0.4

- (ii) Country X has absolute advantage in the production of wheat because productivity of wheat is higher in country X , or conversely, the number of labour hours required to produce wheat in country X is less compared to country Y
- (iii) Country Y has absolute advantage in the production of cloth because productivity of cloth is higher in country Y , or conversely, the number of labour hours required to produce cloth in country Y is less compared to country X
- (iv) In country X, the opportunity cost is 0.25 units of cloth for 0.5 unit of wheat.
- (v) In country Y the opportunity cost is 0.4 units of wheat for 1 unit of cloth.