

# **TRADE THEORIES**

There are three sources of the gains from trade: (i) specialization, (ii) economies of scale (iii) learning by doing.

## The Gain from Specialization

To isolate the gain from specialization, we will assume following assumptions.

- 1. There are only two countries in the world i.e., A, B
- 2. There are only two goods i.e., wheat and cloth.
- 3. Labour is the only cost of production
- 4. Labour is homogenous
- 5. There is perfect mobility among labour
- 6. There is no transportation cost
- 7. There is no trade barrier
- 8. Each of the economies faces linear production possibility curve i.e. constant opportunity cost.

## **Theory of Absolute Advantage**

According to this theory countries can produce both of the goods but will specialize in that good where they have absolute advantage over the second country in the production of a commodity.

#### Before specialization

	Wheat	Cloth
Country A	10	6
Country B	5	10
World	15	16

In the above table it is shown that both countries can produce both of the goods but country A has an absolute advantage in the production of wheat where as country B has an absolute advantage in the production of cloth. Therefore country A will specialize in wheat and country B specialize in cloth.

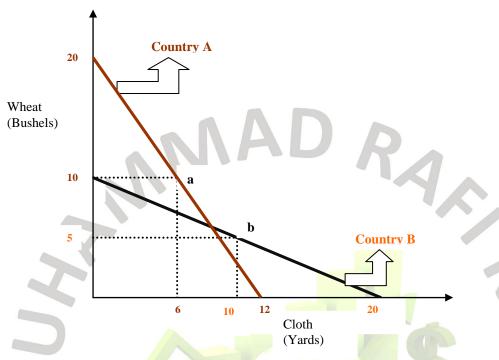
#### After specialization

	Wheat	Cloth
Country A	20	0
Country B	0	20
World	20	20

Due to specialization world output increases from 15 bushels of wheat to 20 bushels of wheat and 16 yards of cloth to 20 yards of cloth. Overall gain from specialization is 5 bushels of wheat and 4 yards of cloth.



If the inhabitant of each country are to consume a balance bundle including both commodities, as they did when each country was self sufficient, trade must take place. Country A will export wheat and import cloth while country B does the opposite. Trade gain can be shown with the help of production possibility curves.



It has shown in the above fig. country A is at point a on its PPC, where as country B is at point b on its PPC before specialization. After specialization both countries will better of if they are at any point between c and d on new PPC of the world.

## Theory of Comparative Advantage

According to this theory a county has an absolute advantage in the production of both of the goods where as other country has an absolute disadvantage in the production of both of the goods but international trade can exist if one country specializes in that good where it has comparatively more advantage and other country will specialize in that good where it has comparatively less disadvantage.

Under the above mentioned circumstances we assume country A has an absolute advantage in the production of both of the goods where as country B has an absolute disadvantage in the production of both of the goods as we can see in the following table.

### **Before specialization**

	Wheat	Cloth
Country A	100	50
<b>Country B</b>	30	40
World	130	90

If country A uses half of its resources in the production of both of the resources, it can produce 100 bushels of wheat and 50 yards of cloth. On the other hand country B can produce 30 bushels of wheat and 40 yards of cloth, where as world output will be 130 bushels of wheat and 90 yards of cloth.



Country A has comparative advantage in the production of wheat where as country B has less comparative disadvantage in the production of cloth, therefore they specialize in their respective goods.

#### After specialization

	Wheat	Cloth
Country A	200	0
Country B	0	80
World	200	80

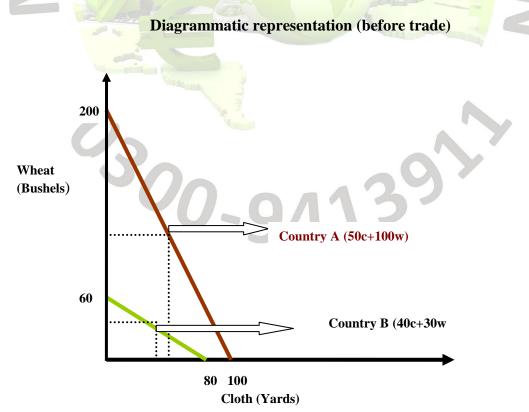
Country A can produce 200 bushels of wheat whereas country B can produce 80 yards of cloth.

#### **Comparative advantage and opportunity cost:**

Concept of opportunity cost is used to find out comparative advantage e.g. in country A opportunity cost of each bushel of wheat is ½ yard of cloth whereas in country B opportunity cost of each bushel is about 4/3 of cloth. Similarly in country A opportunity cost of each yard of cloth is 2 bushels of wheat whereas in country B opportunity cost of each yard of clothe is ¾ bushels of wheat.

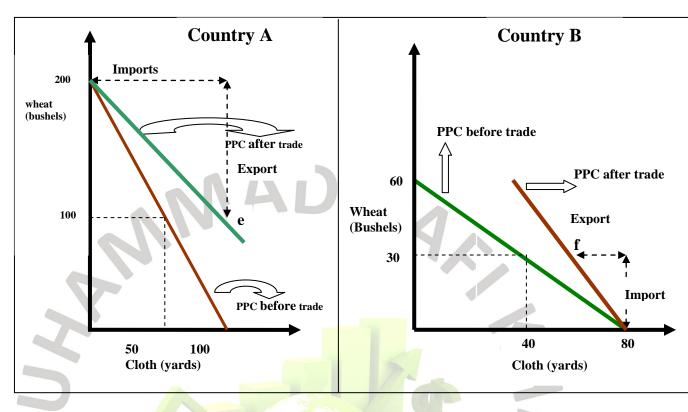
Country A will specialize in wheat because of less opportunity cost, on the other hand country B will specialize in cloth. We assume that minimum requirement of the world is 130 bushels of wheat and 90 yards of cloth. After specialization 70 bushels of wheat can be produced more but there is shortage of 10 yards of cloth. Therefore country A will produce 10 yards of cloth at the cost of 20 bushels of wheat.

	Wheat	Cloth
Country A	180	10
Country B	0	80
World	180	90





## After trade:

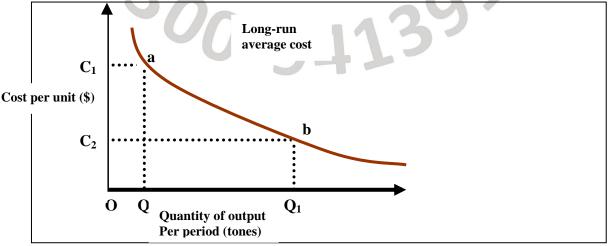


A and B have production possibilities curve with different slopes. If A could trade at B's opportunity cost ratio, it could specialize in wheat, produces 200 bushels but consume at e, and exchange wheat for cloth with B. If B could trade at A's opportunity cost ratio, it could specialize in cloth, produce 80 yards and consume at f.

It is concluded countries get benefits from international trade or international trade possible if opportunity costs are different or there are different slopes of production possibility curves in different countries.

## **Economies of scale**

Real production cost, measured in terms of resources used, often fall as the scale of output increases. The larger the scale of operation, the more efficiently large scale machinery can be used and the more efficient the division of labor that is possible. Trade allows smaller countries to specialize and produce a few products at high enough levels of output to reap the available economies of scale.

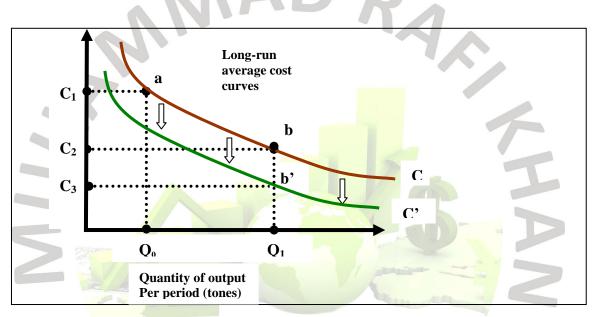




Before specialization output is  $OQ_0$  at cost  $OC_1$  at point **a**, but as country specialize AC reduces to  $OC_2$  for production  $OQ_1$  at point **b**. This is an economy of scale.

## Learning by doing

Some economists place a great importance on a factor that we now call learning by doing. They argue as countries gain experience in a particular tasks, workers and managers become more efficient in performing them. As people acquire expertise, costs tend to fall. There is substantial evidence that such learning by doing does occur. The distinction between this phenomenon and economies of scale can be illustrated with the help of following diagram. As workers and managements learn, they may increase productivity and shift the cost curve from C to C'. This is learning by doing. The downward shift, shown by the arrows lowers the cost of producing every unit of output.



.At output  $Q_1$  cost per unit falls from  $C_2$  to  $C_3$ . Movement from a to b' incorporates both economies of scale and learning by doing.

### **Economic integrations-Trading blocs**

#### **Free Trade Area**

In free trade areas, there is a free movement between member countries, however, member countries ay impose tariff on imports from non-member countries according to their will, i.e., there is no common external tariff rate.

#### **Custom Union**

In a custom union not only there is a free trade between member countries but also there is common external tariff on imports from non-member countries.

#### **Economic Union**

In an economic union, the additional feature is some common economic policies by member countries along with the free trade and common external tariff policy.

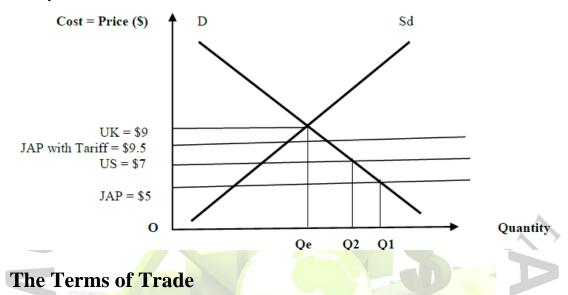
### **Monetary Union**

In a monetary union, member countries also have common currency in addition to all features of an economic union like, free trade, common external tariff and some common economic policies.

## Trade creation and trade diversion



Trade creation is taken place on the basis of comparative or absolute advantage, where as trade diversion is taken place on the basis of economic integration. For example, a product X has different costs of production in Japan, UK and US. In Japan its cost in common currency is \$5, in UK, it is \$9, where as in US, it is \$7. If there is a free trade a UK national prefers to import from Japan @ \$5 and saves cost. It increases economic efficiencies and better allocation of scarce resources. Now there is a formation of a trading bloc between UK and US, and they impose common external tariff rate of 50% on imports from Japan will incur additional cost of \$2.50 to importer along with the actual cost of \$5, therefore, UK national prefer to import from US @\$7. It is called trade diversion and it increases cost of production and may cause inefficiencies.



World production can be increased when countries specialize in the production of those goods and services in which they have comparative advantage, and then trade with one another. The gain from trade then will be shared among countries. The division of gain depends on terms of trade. Those countries which have favorable term of trade will get more benefit then the other country. The terms of trade measure the quantity of imported goods that can be obtained per unit of goods exported. Because actual international trade involves many countries and many products, a country's terms of trade are computed as an index number:

> Terms of trade= Index of export prices X 100 Index of import prices

A rise in the index is referred to as favourable change in a country's terms of trade. A favourable change means that more can be imported per unit of good exported previously. If terms of trade are greater than 100, it is considered favourable and on the other hand if terms of trade is below 100 then it is considered as unfavourable, which means now the economy has to export more of the good to import the same basket.

There are certain factors which can influence exports price index or/and imports price index. These are, cost of production, rate of inflation, exchange rate, change in demand for and supply of exports and imports etc. For instance if in an economy cost of production rises, its exports' prices will rise which can raise its terms of trade. Similarly if in an economy rate of inflation raises it leads to increase in prices of exports. Devaluation or depreciation of the currency will deter its terms of trade because of a fall in prices of exports and rise in prices of imports. Increase in demand for exports improves terms of trade but increase in demand for imports deter terms of trade. On the other hand increase in supply of goods may decrease



prices and fall in supply may increase prices, which will have certain appropriate impacts on terms of trade.

There are two other concepts which are closely related to the terms of trade. These are the *real exchange rate* and *competitiveness*. We have said a rise in prices brings improvement in the terms of trade, but rise in domestic prices relative to foreign prices could also cause a loss of competitiveness. This would normally be considered as unfavourable. The reality is that whether a relative rise in domestic prices is good or bad depends upon why it came about. If the prices of the exported goods rise they are in high demand, then this is a good thing but if prices rise because of rise in cost of production or inefficiencies then we will worse off.

Price elasticity of demand also determines whether favourable or unfavourable terms of trade are good or bad for the trade. For instance if demand for exports is elastic and terms of trade falls then there is a possibility of an increase in exports revenue but in case of inelastic demand exports revenue will fall. On the other hand if demand for imports is inelastic then unfavourable terms of trade will deter balance of trade and vice versa.

Unfavourable terms of trade may be a concerned area for a government if it prolongs. For instance, developing economies usually produce primary product and semi finished goods which have many close substitutes, therefore, these goods do not have good prices and as result developing economies have unfavourable terms of trade. Prolonged unfavourable terms of trade deter balance of trade which leads to reduce foreign reserves and also there is possibility of international indebtedness for the economy.

