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Lecture – 08 International Trade Theories – I

Welcome friends, to a course of International Business. In the last lecture we had started with the theoretical foundations of International Trade. As every day I try to give an example; today when I am standing here and I just was reading in you know news that the U.S is going to lose more by having a trade war with the European Union (E.U) which is likely to which is going on at the moment.

And then the you know then the trade war with China right; because the relationship with E.U as a in terms of economy is a very larger one in comparison to the trade relationship with China right. So, international trade is affected by several political decisions and several issues right. So, in the last lecture we are talking about the approaches to international trade and which we discussed about laissez faire approach where the government does not want to interfere and tries to give a free hand.

On the other hand on the other side we had a interventionist approach where we said about where the government tries to control right. We spoke about the mercantilism theory where which we say nothing, but zero sum theory. And it says that if one's gain is another's loss, somebody gains and somebody has to lose because the total remains the same.

Today we will talk about the neomercantilism right. what does neomercantilism says?

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So, let us see a country it says that practices neomercantilism attempts to run an export surplus to achieve a social or political objective; now this comes under the interventionist right theory. For instance, let us say, a country may try to achieve full employment by setting economic policies that increase it's companies to produce in excess of the demand at home and to send the surplus abroad.

So, the government tries to achieve full employment by setting economic policies be for example, through subsidies or something right. Which; can produce excess of the demand at home domestic demand and send the surplus outside. Grant loans to government foreign governments to use for purchase the excess production. So, now, these are some of the policies which companies, countries have adopted.

Now let us look at China; China deliberately has been keeping it's currency low against the US dollar; why? So, that it can export more. Now this has been done even by Japan also Japan devalued it's currency to a very large extent. Now what happens when you devalue the currency the home countries currency becomes much cheaper in comparison to the dollar or let us say the pound right dollar or pound.

Now if it is cheaper; obviously, maybe during import it might be costly it will become costly obviously. But when you export these countries who are using dollar or anybody who is buying through dollar now they would find it much cheaper because this currency has devalued. So, they can buy more with the same kind number of dollars.

For this reason countries which have already offered subsidies and streamlined their production accordingly and are producing a large amounts they are deliberately trying to control the they devalue their currency right.

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| Fre | re trade - a situation where a government does not attempt to influence through quotas or duties what its |
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| citi | zens can buy from another country or what they can produce and sell to another country. |
| | Two theories supporting free trade: absolute advantage and comparative advantage. |
| • | Both hold that nations should neither artificially limit import nor promote exports. The so-called invisible hand will determine which producers survive as consumers by those products that best serve their needs. |
| ~ | Both free trade theories imply specialization Adam Swith |
| | |

Now, free trade theories we were talking about where we started in the last class. We said it is a situation where the government does not attempt to influence like the interventionist theory right. So, influence through quotas or duties what it's citizens can buy from another country or what they can produce. So, what it says basically it tells is that one is free to buy and sell right and there should be very very limited rules and regulations to or any interference into that ok!

Two theories supporting free trade very classical theories are; the absolute advantage theory which is given by Adam Smith as I said and comparative advantage theory which is given by Ricardo David Ricardo. Now, what is this theory saying? Both hold both the theories hold that nations should neither artificially limit import nor promote exports. That means we can according to this theory these two stories we can criticize those countries who are artificially reducing their imports and artificially increasing their exports.

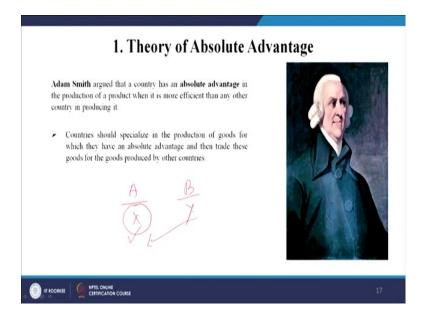
Artificially means maybe by supporting, giving extra support or subsidies to the domestic players to make them more cheaper and more efficient. So, which is not an

open market mechanism is a free market mechanism, but it is more of a control mechanism right. So, this is not a good thing right as per these theories.

The so called invisible hand, this law of invisible hand was actually given by Adam Smith right! in his the wealth of nations Adam Smith. The wealth of nations where he where he argued that when a person or when a any unit tries to work for itself and tries to do good for itself it automatically boils down to the good of the nation right! So, the so called invisible hand will determine which producers survive as consumers by those products that best serve their needs.

So, what are the products they should make and which consumers they should cater to right! Both these trade theories implies specialization; now, this word specialization is very important. Specialization means to specialize in something to be good in something to be an expert in something right!

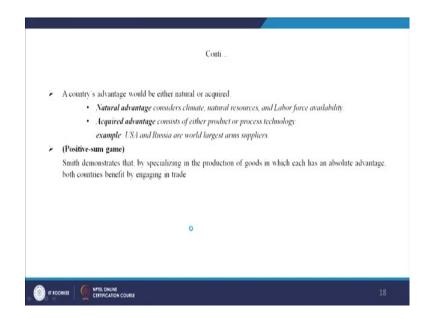
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So, let us talk about the first theory; the theory of absolute advantage. So, Adam Smith argued that in the production of a product when it is more efficient than any other product in producing it, countries should specialize in the production of goods for which they have an absolute advantage and then trade these goods for the goods produced by other countries.

So, country A has something you know is good at X let us say, country B is good at Y specialization is in Y. So, it says only country A should make X and trade for Y right and Y should make only Y and trade for X.

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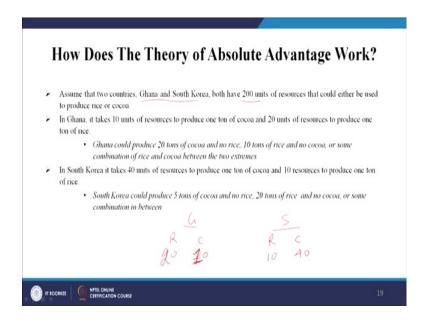
A countries advantage would be either natural or acquired it could be natural. For example, let us say the climate natural resources and labor force availability for example, India, China, the Saudi right which has natural advantage of let us say oil India has a natural advantage of population and other things right. So, even a very good climate. Acquired advantage on the other hand consist of either products or process technology so this is not natural right.

So, acquired is you have developed with time right through your technology and all. U.S and Russia are world's largest arms suppliers; so these countries have developed their arms suppliers technology and they have been world leader in as suppliers. What is this positive sum game? Smith says demonstrates that by; specializing in the production of goods in which each has an absolute advantage right! both countries benefit by engaging in trade and this is what he says is that positive sum game we understand it as a positive sum game.

So, if country A makes X country B makes Y and they make more number of units with a limited number of resources then there is an absolute gain if we take the total after A

makes only X and B makes only Y and we add that is a total gain right! we will see that in with an example. So, let us see how the theory of absolute advantage works.

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Assume that two countries are there Ghana and Korea South Korea both have 200 units of resources so resources are limited. So, we have 200 units for Ghana 200 units for South Korea; that could either be used to produce rice or cocoa. So, Ghana can make for example, Ghana and this is South Korea. So, Ghana can make rice or cocoa South Korea can also make rice or cocoa right!

Ghana takes 10 units to produce 1 ton of cocoa to produce 1 ton of cocoa Ghana takes how much 10 units. And 20 units to produce 1 ton of rice so 20 units to produce rice this is rice and this is cocoa. So, I have done the reverse. So, this is for rice it is 20 and cocoa is 10 so this is 10 right this is 10. Similarly on the other hand South Korea right South Korea takes 40 units to produce 1 ton of cocoa 40 and 10 to produce 1 ton of rice.

Now, Ghana could produce look at the example let us go slow Ghana could produce 20 tons of cocoa and no rice 10 tons of rice and no cocoa. Let us see this example I have in the next slide.

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| | Absolute advantage and ga | in from the trade | |
|--|--|---|----|
| | Resources required to produce 1 | ton of Cocoa and Rice | |
| Ghana South Korea | Cocoa 10 40 | Rice 20 10 | |
| | Production and consumpti | on without trade | |
| Ghana South Korea Total production | Cocoa 10 2.5 12.5 | Rice 5) 10 | |
| | 200 Consumption with sp | ecialisation | |
| Ghana South Korea Total production | 20 00 20 | Rice 20 20 | |
| | Consumption after Ghana trades 6 tons coco | a for 6 tons of South Korean rice | |
| Ghana South Korea | $\begin{array}{c} \text{Cocoa} \\ 14 $ | $\frac{\text{Rice}}{06} + 1$ $14 + \frac{1}{2}$ | |
| | Increase in consumption as a result | of specialisation and trade | |
| Ghana South Korea | Cocoa 04 3.5 | Rice 01 | |
| | | | 20 |

So, let us see now to make for example, now Ghana let us go to Ghana to make 1 ton it needs 10 units of the natural resource and 20 units to make 1 ton of rice right 10 and 20. South Korea required 40 and 10. So, cocoa has been only thing is I was writing rice this side and cocoa is the now this is just the reverse. So, cocoa Ghana takes 10 rice for rice it takes 20 units.

South Korea requires to produce cocoa 40 units of you know resources and 10 units of rice right. Now let us take look at it in another perspective. Now, the production and consumption when there is no trade between the two countries.

So, Ghana now let us go to the case of Ghana. So, Ghana will produce 10 units of cocoa let us say. So, how many units of cocoa? So, how much is left? So, 10 into 10 so; that means, 100 units are consumed here and for rice with the 100 units of resources left how much they will reproduce? So, 20 100 by 20. So, 5 units 5 tons ok!

So, 10 tons of rice cocoa and 5 tons of rice has been produced by Ghana with the same 200 units. For South Korea 40 units they were taking to produce 1 ton of cocoa. So, how much will they produce with 100 units? That 2.5 for 100 divided by 40 how much of rice they can produce? 100 divided by 10 so 10. Now if I produce there is no trade we have said. What is the total production of cocoa? 10 plus 2.5, here rice is 5 plus 10 so 15. So, 12.5 plus 15 right; this is the total trade now, this is the total production sorry and there is no trade now.

Now let us see if they are if they specialized and they do only what they are good at right. So, Ghana has a specialization if you see in comparison it takes only less units to produce cocoa; so it will produce only cocoa.

So, how much will it produce? 200 units all the 200 units let us use all the 200 units here. And here we were using 100 this side 100 this side right so 200 units if I am using here. So, 200 by 10 which is 20 correct; no rice. So, they would not produce any rice because they have used all the resources for only cocoa.

South Korea on the other hand will not produce any cocoa, but only produce rice; why? Because, they were taking for cocoa 40 and rice 10 right; now what is the total? Cocoa total production is 20 rice is 20 ok. Now imagine a situation when the consumption the consumption is changing now. After Ghana trades 6 tons of cocoa because Ghana has an advantage in cocoa right we saw that and South Korea has an advantage in rice.

So, that they exchange 6 tons for cocoa of cocoa for 6 tons of rice. So, now, how much Ghana was producing? 20. So, 20 minus 6, 14; so tons are left. 6 tons they have of rice they have now they had no rice so they gave away the 6 tons to this 6 tons they have given to South Korea because South Korea was not making any cocoa. In terms of rice South Korea was making 20 it gave away 6 to Ghana. So, now, both have 14, 6, 6, 14 right. So, the total remains the same does not change 20, 20.

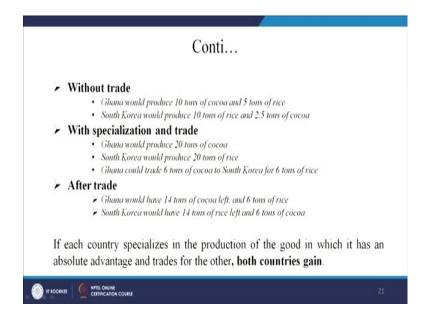
Now look at this case now finally, increase in consumption as the result of specialization in trade. Now what has what are the change what are the change happened you see. Now earlier what was happening if you compare with the first case when there was no trade right versus when there is a specialization.

So, the cocoa that was being produced was 10 units by Ghana. Now what is the case how much is Ghana making now plus 4 right. How much was South Korea having cocoa 2.5 in the this case. So, 2.5 minus 6 is 3.5 which is here written so plus 3.5 correct ok. What happened to this case in terms of let us say to rice?

Now earlier Ghana was making 5 units of rice right 5 tons of rice now they have got 6 tons they brought 6 tons from Korea. So, 1 ton they have got an extra; so plus 1. If you look at Korea; Korea was making how much? 10 tons. So, 10 tons of rice and they are now making they having 14 tons of rice so plus 4.

So, now, the case is in terms of cocoa Ghana has 4 units more South Korea has 3.5 units more in terms of rice Ghana has 1 unit 1 ton more and South Korea has 4 ton more. To the case when there would have been no trade and everybody would have done whatever they were doing good in the domestic level. So, if you look at the total this is an absolute advantage. So, both the countries are gaining right.

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So, without trade Ghana would produce 10 tons of cocoa and 5 tons of rice South Korea would produce 10 tons of rice and 2.5 tons of cocoa with specialization and trade. Ghana would produce 20 tons of cocoa South Korea 20 tons of rice Ghana could trade so we discussed that. And after trade what is happening.

Ghana would have 14 tons of cocoa left and 6 tons of rice South Korea would have 14 tons of rice left and 6 tons of cocoa. If each country specialization in the production of the good in which it has an absolute advantage and trades for the other both the countries gain. What I will suggest is; go back to the slide again and try to understand it right with different examples right.

And then you will realize that trading has always which is always beneficial both countries will gain we. For example, when we talk about countries which have got very bad relationship political relationships there also if there would have been economic transactions both countries would have gained right.



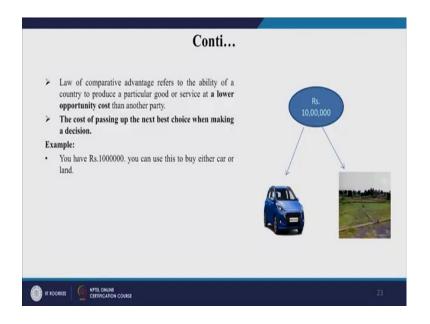
The next theory of free trade theory was given by David Ricardo right. So, where he said about comparative advantage; now, what is this comparative advantage; he asked a question David Ricardo asked a question; what will happen when one country has an absolute advantage in the production of all the goods? So, in the last case we were finding that Ghana was good in cocoa South Korea was good in rice right.

But now it says suppose one country has got the advantage in both the cases rice and cocoa; what will happen in this case? Should there be an international trade or there should be no international trade; because the country which is doing good in both why should it should even trade with the other one; that is what people think. When I am good in you know sports and education suppose studies and sports I should not be giving away my you know knowledge to others; that is a very small very poor thought.

Now let us see how Ricardo has explained that. Ricardo's comparative advantage theory makes sense for a country to specialize in the production of those goods that it produces most efficiently. So, if A and B are two products in both they have an advantage let us say over another country still the one in which they are the best they should specialize there. And to buy the goods that produces less efficiently from other countries.

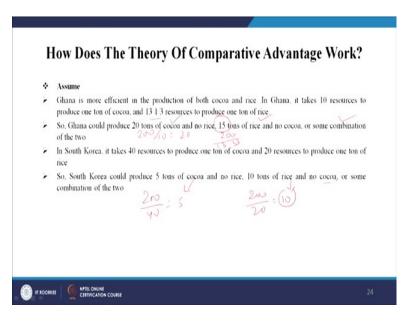
Even if this means buying goods from other countries that it could produce more efficiently itself. Suppose let us say if I am good in both the products if India produces two products A and B and in both it is better than China; that does not mean that India should not trade with China, India should still make A and leave B and get it done from China right.

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Law of comparative advantage refers to the ability of a country to produce a particular good or service at a lower opportunity cost than another party; the cost of passing up the next best choice when making a decision. For example, you see there is a choice you have you can buy a car you can buy a land patch of land. Now you need to decide which one is of more beneficial to you cannot you do not have to take both right.

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Now, how does it work? Now take let us take the same example of Ghana and south Korea. So, Ghana is more efficient in the production of let us say both cocoa and rice right. In Ghana it takes 10 resources to produce 1 ton of cocoa let us assume and 13.33 resources to produce 1 ton of rice. This has only been done for easy understanding right.

So, Ghana could produce now 20 tons of cocoa; why? Because 10 resources are required and you have 200 divided by 10 is equal to 20 and no rice; so all my resources are utilized. 15 tons of rice and no cocoa right; so 15 tons why? How much was it taking to make 13.33?

So, 20, 200 divided by 13.33 is almost 15 right and no cocoa or a combination of the two. So, we can go for this we can go for this or a combination right. Similarly South Korea takes 40 resources to produce 1 ton of cocoa and 20 resources to produce 1 ton of rice.

So, South Korea how much will it produce? 200 by 40 is equal to 5 tons of cocoa right and no rice. Similarly 20; so 200 divided by 20 is equal to 10 tons of rice and no cocoa or a combination again. So, let us see.

| | Comparative advantage and | gain from the trade | |
|--|---|-----------------------------------|--|
| | Resources required to produce 1 | ton of Cocoa and Rice | |
| Jhana South Korea | Cocoa 10 40 | Rice 13.33 20 | |
| | Production and consumpti | on without trade | |
| Ghana South Korea Total production | Cocoa 10 2.5 12.5 | Rice 7.5 05 12.5 | |
| | Consumption with sp | ecialisation | |
| Ghana South Korea Total production | 159 (Cocoa) 00 15 | Rice 50 3.75 10 13.75 | |
| | Consumption after Ghana trades 4 tons coco | a for 4 tons of South Korean rice | |
| Ghana South Korea | Cocoa 11 04) | Rice 7.75 06 | |
| | Increase in consumption as a result | of specialisation and trade | |
| Shana South Korea | Cocoa 01 1.5 | Rice 25 | |
| iouth Korea | Discrease in consumption as a result Cocoa 01 | 06 | |

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Now, take these example this is a comparative advantage.

Now, first Ghana cocoa 10 and 13.33 units for rice this is the units required. 40 for South Korea to produce cocoa and 20 units for rice ok. So, you can see in both Ghana has an

advantage over South Korea because it is taking 10 units and this one is taking 40 units. Here this one is taking 13.33 this is taking 20 units. So, in both the cases Ghana has an advantage over South Korea in cocoa and rice; there is no doubt about it.

Now let us look at the production and consumption without trade if no trade would have happened between these two countries. So, Ghana would produce how much? Let us say 100 units 100 units here 100 units here right we divide so 10; so a 10. 100 divided by 10 is equal to 10 right 100 divided by 13.33 is 7.5. So, now, with the 200 units of resources Ghana can produce 10 tons of cocoa and 7.5 tons of rice right.

South Korea on the other hand can produce 2.5 tons of cocoa and 5 tons of rice right because 20, 100 by 20 this is 100 by 40. Now, let us say there is a specialization now what will happen? Ghana is good in both; so what is Ghana doing? Ghana is trying to utilize it's resources in a efficient manner it uses 150 units of the resources for cocoa because cocoa they are better at cocoa in comparison to rice and only 50 units they are spending for rice; let us say.

So, now, what happens? So, 150 upon 10 what they require to make a ton of cocoa; is how much? 15 tons of cocoa they can make with the 150 units right. To make rice now they have spent spending only 50 units. Now 50 divided by how much? Now divided by 13.33 so 13.33 50 by this equal to 3.75. So, Ghana can produce with a 50 units of the resources 3.75 units of the rice very good clear. Now let us go to South Korea south Korea had a disadvantage in both.

So, South Korea will only go for the one in which it is better, then you know in in comparison to the both cocoa and rice in which they are the best they will only go for that. So, they would not produce cocoa; obviously, because they were requiring 40 units so that is much larger they would go for rice where they are using 20 units. So, South Korea now is using all it is resources to produce only rice. So, how many rice units they are tons? They are producing 200 divided by 10, 20 that is equal to 10 tons right.

Now let us look at the total so how much cocoa is produced now? 15, 15 plus 0 and how much of rice is produced? 3.75 plus 10 13.75 let us compare to the upper one upper table this one where there is no trade. Now here it was cocoa 12.5 now it is become 15; so there is in a gain in the production of total cocoa. Similarly, in terms of rice this is 12.5 this is 13.75; still there is a gain right. So, both the cases it is a gain only right.

Now consumption after Ghana trades let us say 4 tons of cocoa and 4 tons for 4 tons of South Korean rice. Now we are saying coming to the comparative advantage where we are saying still let us do one in which we are good. So, Ghana will only produce cocoa let us say right they exchanges 4 tons of cocoa. Now Ghana gave away out of 15, 4 tons of cocoa to South Korea. So, it was 15 earlier here; so 15 minus 4 which this is come here; so remains is 11 right. In terms of rice what has happened? They take 4 tons from South Korea so how much was South Korea having 10.

So, 10 minus 4 is 6, but this was 3.75 earlier. So, this has become 7.75 this is 6 ok! So, now, what has been the change let us see. So, if you look at the to compare this one with this table with this one right initially had they used 100 and 100 without any trade.

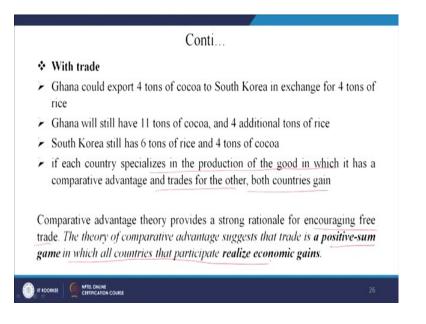
Ghana was producing 10 units of cocoa 10 tons of cocoa now they are getting 11 tons. So, there is a plus 1 right plus 1. Similarly, in terms of rice there was 7.5 and now they are getting 7.75; so there is a 0.25 gain right.

Now come to South Korea; South Korea was having cocoa 2.5 tons right now they are having how much? 4 tons. So, there is a gain of 1.5, 4 minus 1.5, 2.5 there is only 1.5 gain. And in terms of rice they were having how much? 5; now what is the case? 6, so again there is a gain. Now if you see the condition there is a gain in all the cases right. There might be minute changes like .25 which we do not know absolute value how much it will be, but still there is a gain.

Why we have taken 4 we did not take 5 or 3 that is another case you can try on your own by changing this numbers to 4 instead of 4 to 5 or 3 and see the changes. You will see that the change is best when you have 4. Similarly, in the last case also where we said 6 tons I think or something 6 tons. If you take instead of 6 you take 5 or 7 or any other number you will not find the optimum result as you have got now.

So, you may try this right on your own ok.

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So, what is happening here? Ghana could export 4 tons of cocoa to South Korea in exchange of 4 tons of rice right. Ghana will still have 11 tons of cocoa and 4 additional tons of rice we did it just now. South Korea has still 6 tons of rice and 4 tons of cocoa. If each country specializes in the production of the good in which it has a comparative advantage and trades for the other both countries will gain this is what Ricardo said right.

Comparative advantage theory provides a strong rational for encouraging free trade. The theory of comparative advantage suggests that trade is a positive sum game in which all countries that participate realize economic gains. So, you can see how wonderfully they have explained that free trade is always a beneficial and there is gain right.

Now, what is this theory of specialization? So, we heard they both were advocating specialization both Adam Smith and Ricardo.

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So, what is this theories of specialization and what are their assumption and limitations. They have their own assumptions also and limitations; let us go to some of the assumptions and limitations.

First of all it has an assumption that there is full employment; when countries have many unemployed or unused resources that may seek to restrict imports to employee or use idle resources. So, what Adam Smith and David Ricardo was thinking they were assuming that it was a full employment case right. So, the everybody is employed, but that might not be true and that is itself a limitation right.

There are only two countries and two goods in their theory like; Ghana and Korea and rice and cocoa, but that is not only true that that might not be true. There are multiple number of countries with which we can trade and multiple number of goods. So, the result might look different right!

Economic efficiency third point; countries goals may not be limited to economic efficiency alone. For example, let us take this case of teacher versus gardener. Now a teacher as a teacher I would do better in doing teaching right, I can maybe earn more money also right by taking extra classes, but then the point is we come to a point where we feel is it every time that I have to earn money.

But I am not enjoying let us say I have got tired alright. So, in such a condition I may enjoy relax myself by doing some gardening. So, and by doing this gardening activity I am relaxing myself and you know doing something better for me my health is staying better and you know I am happy. So, a country's goal may not be limited to economic efficiency alone similarly ok!

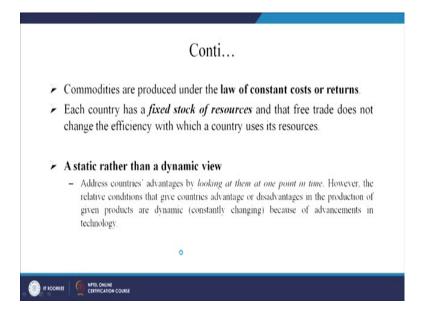
Equitable division of gains from specialization now what it is saying there the assumption is that there would be equitable divisions, but how would you decide the distribution of the gains when there are number of party's number of countries involved right. So, that is also a question right.

Another limitation or assumption which is which turned into limitation is the transportation cost between the countries has not been taken. For example, you see a country like India and China which are huge, vast right there might be that these are these large countries would prefer to do domestic you know business instead of going international. Because they feel international you know sometimes can be more costly for them.

Similarly small countries would tend to more go into international business because they feel they have lack of natural resources right. And the best way to tap the markets is to is to tap the others market right. No differences in the prices of resources in different country. Now that was also an assumption which Ricardo and Adam Smith never thought of. And they excluded services right they did not consider services right.

Finally, what is the last point mobility; where it says resources can move freely from the production of one good to another within a country at no cost, but are perfectly immobile between the two countries. In reality this is not always the case this is not true right.

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Continuing from there; commodities are produced under the law of constant costs or returns right. So, there is a constant cost, but that is not true the costs might vary because of change in policies, the change in availability of materials and all these things right. Each country has a fixed stock of resources and that free trade does not change the efficiency with which a country uses it, but this is also an assumption and this assumption might not hold true right.

Last is a static rather a dynamic view what it says it addresses country's advantages by looking at them at one point in time; however, the relative conditions that give country's advantage or disadvantage in the production of given products are dynamic they are constantly changing. India was not the same 20 years back and today India is a hugely developed country.

So, even in I was you know one of the statements the president Donald Trump said India and China have taken lot of advantage by showing them as a developing nation. So, they should not be given advantages which are given to developing nations because they are now as good as a developed nation right. So, these things are changing because of the change in technology and similar things right.

So, here I would like to break it we will continue from the in the next class. So, I hope today you are clear with what these two theories you know free trade theories of Adam

Smith and Ricardo explained. And what are the assumptions and limitations when you talk about this specialization concept right.

So, I will wind up (close) here thank you very much have a nice time.