Strategic Trade and protectionism - Theories and Empirics

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Lecture – 33
Effects of Non – Tariff Barriers

Welcome once again, dear friends for the MOOC course of NPTEL on Strategic Trade and protectionism Theory and Empirics. Where we have already landed in the session on Non-Tariff Barriers, non-tariff barriers as I repeatedly said is one of the most important restrictions or protectionism of international trade transactions. So, we are on 33 lecture of week number 7 where we have been discussing these details.

Now, after discussing the types of non-tariff barriers and facts and figures; let us have a detailed understanding of the implications of non-tariff barriers. How it affects? And, which particular instrument of non-tariff barrier actually affects differently? So, let us count by certain theory theoretical mapping of effects of non-tariff barriers. Now, this is the one we have already discussed different types broadly discussed divided into some practices of defense measures.

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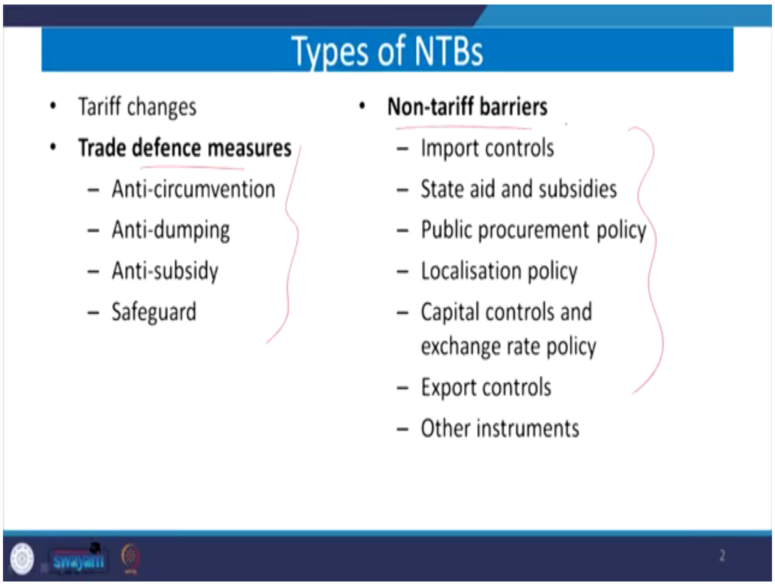

And some practices of non-tariff barriers measures out of that import control will be emphasizing largely. Also, we will be discussing you know export related controls. Like export subsidies or export related financing or here is also state subsidies and those other instrument like TBT's and SPS we will takeoff in the next lecture.

Now, let us start with import quota which we started in the previous class, but could not able to do it. What is the meaning of it? How import quota has been conceptualized? The first, important discussion of import quota is referred when we have a direct control of imports to the domestic country? Straightway reduce the import to the exact requirement.

Whereas, in the against tariff we do not have the direct impact. Though the imposition was direct in you know you know you know in tariff, but the restriction is not effective; where here the restriction is very effective. Quota means a specified amount of import is permitted to the you know, to the importers to the country. Beyond that, there are strict you know, regulations or strict penalties. On these, therefore, we say it is direct quantitative you know restrictions on the amount of commodity which has been you know imported to the concerned country.

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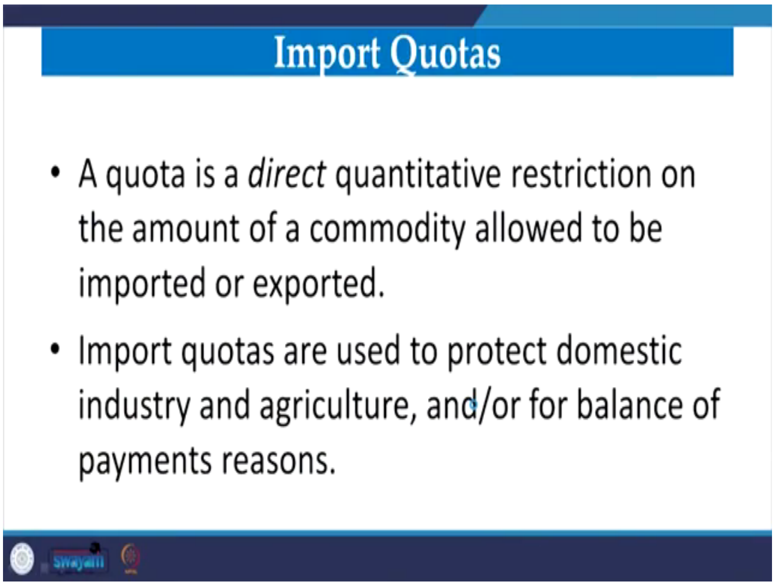

And import quotas are used usually to protect domestic industry specifically agriculture sector and for balance of payment you know balance of payment problems as well. To I mean, correct the balance of payment problem as well. Because its since you know, import bears huge amount of burden on the balance of payments.

So, this is one of the direction by which it could able to minimize the imbalances. What about how do you differentiate these as against import quota that was discussed in the last week? Large in short we will verify; I mean, largely in short the there are 2 points by which we say import quota is effective. There are 2 other points where we say ex import tariff is you know effective.

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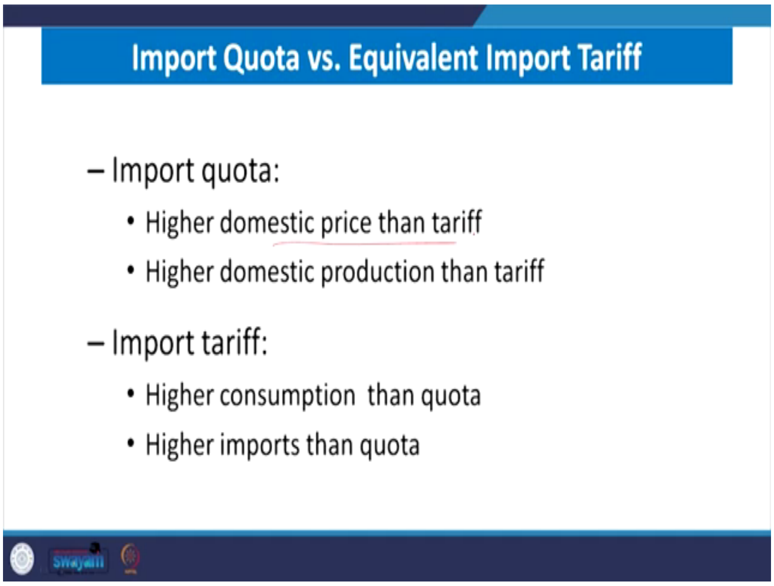

Now, so far is you know domestic price is concerned; it increases domestic price higher than that of tariff through import quota. But how? I mean obvious question comes why? Why it is higher? So, we will verify now in the next slide. Now second aspect is you know it higher it promotes higher production than that of tariff. So, therefore, both way it is very important

So far as import tariff is concerned, it you know facilitates higher consumption than quota. Because, even if a price is restricted importers may import more than that of the you know the amount being imported as mentioned in quota. Similarly, it facilitates higher imports than quota. there it might facilitate you know more production, those are the importers can bear the cost of tariff can import as much they want. So, there are the broad 2 discussion 2 differences are mentioned in our slides. Now, let us with the theoretical mapping or the presentation of these two differences.

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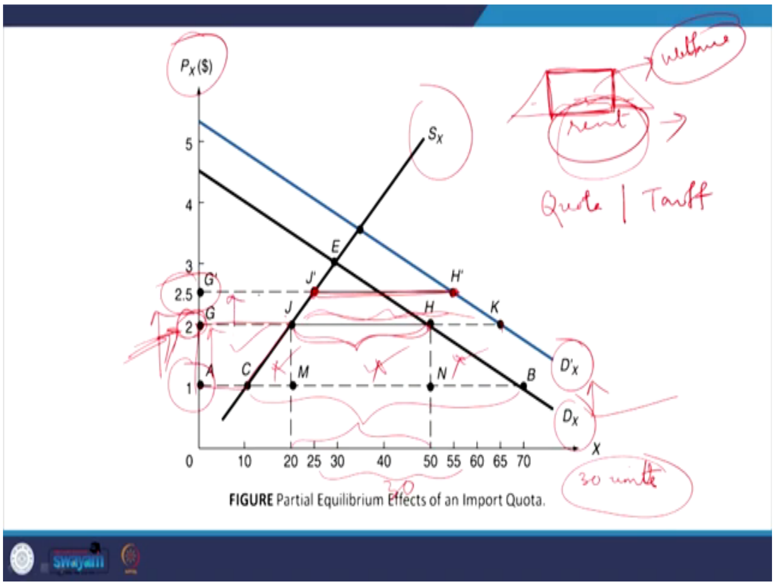

Now, here we are mentioning a partial equilibrium set-up partial equilibrium you know equilibrium partial equilibrium you know discussion on defining import quota as against tariff. Starting with given demand and supply, in a particular country at a certain price level one. These are expressed in dollar we can express in rupees and in other currencies as well.

Now, when the price is prevailed at one in the international market, given the production function and the demand pattern within that country it accrues to huge imports. So, these imports can be restricted by two channels majorly by important two channels; one is through imposing price on the you know or tariff on the price of imports that is one we can make it two, if 100 percent tariff is imposed.

Or we can you know restrict the extent of you know products imported by the importers by stating the limitations on the import, those are called import quota. So, let us start with the import quota. So, around I mean out of huge per percentage of imports; suppose country is interested in importing only 20 to 50 that is 30 units. 30 units is required beyond that the country is not permitting. So, what really happens you know? If you know 30 units are imported by the importers now who has the bargaining power?

Now, importers has you know or usually go by certain you know, bargaining with the exporters, sitting in another country. And since now the importer does not have that much of bargaining; because of the domestic rules and regulations we restrict the importers not to import beyond that limit, let to be 20 unit 30 units.

Now, since less are imported; so, I mean given the demand and supply or since supply is restricted from other countries, the domestic forces will actually you know, lead to higher prices.

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Let it be double by 2. I mean, till the level 2. So its due to imports, price increases to the level 2. What really happens in this diagram? Here as I have already mentioned, based on the consumer surplus producer surplus framework; this much as I told you under the demand curve. This is a demand curve under the demand under the you know straight line demand curve, are the consumer surplus and there is a loss of consumer surplus by C, I mean basically here it is A M N also there are two try. I mean, this area this area this area and this area are all losses.

Out of the producers are actually getting you know more incentive-wise due to the higher prices by the area A. So, A is the area I mean, basically here this is the area gets neutralized is an effect to the countries welfare. So, plus and minus A cancels canceled out. What is left is actually these 3 area this area this area and this area.

Now, these are the negative consequences on the consumers, so far import quota is concerned. Now its all about the area highlighted here. Now the two channels we must discuss. First we said you know this triangles small triangle plus added with this area, plus added with this another triangle is basically on minus terms alright minus impact to the country.

Now, concern here is if import quota is freely you know, I mean these rules are freely available; and any importers can you know go for it without any restriction further. Then what really happens? You know, the competitive you know competitive firms can able to restrict their import very quickly.

Now, if the government follows in two channels, that you know since very limited quantities are imported, very few importers will take the advantage; why not? And they will also charge higher prices due to the domestic you know equilibrium condition. So, why not have a auction on this particular imports?.

Government instead of free imports; governments you know goes by the government goes by you know auction. Leasing of the imports then that (Refer Time: 10:24) certain you know premium to the government. The government earns money. I mean government gets rent out of it. So, government gets rent out of it and out of the rent, government you know government may do certain things.

Now, we will come back to this point again, probably one another point I am missing. At level 2 if the 2 is if the price set; through tariff let it be 100 percent tariff is imposed on the product within the country. And country is a small one it is not influencing the you know, oil prices if that price peoples within the country then country can able to rate this price.

You know there are certain differences, I mean based on if demand gets changed then tariff would be different, lets come back to that. Now, what really happens? We have said that government earns rent and government might go for you know, certain welfare programs with the money earned from the importers ok.

So, there will be redistribution of money which are earned through the competitive bidding or through you know some certain kind of import you know, auctions. So, auctions money are redistributed which is related to higher demand for I mean demand curve gets shifted due to the external factors or demand curve actually there is it possible to shift. Since, higher income is with the government.

So, higher the income with the government, high is the demand curve. Now given this higher demand due to you know auctioning of the extent of tariff, extent of import quota, now that is led to higher demand. Now based on the price if the price still prevails us to now there is higher import from J till K.

So, import is actually by tariff import is now restricted. So, by tariff import is actually higher. So, now suppose we are comparing with tariff I mean quota, import quota with tariff. Then what really happens? The equivalent amount of J to H that is of 30 units, if it is also restricted through tariff.

So, now since a new demand curve is here, and we are going by restricting to tariff the government has to impose higher prices, higher tariff. You know, to restrict the tariff units by 25 till 25 till 55 it is of 30 units. You know, to restrict the import through tariff by 30 units the extent of tariff is much higher. Now the it has resulted higher prices.

So, tariff has caused higher prices; whereas import quota the prices is lower. And given the same prices import quota could able to restrict more trade. Whereas, export I mean tariff or the import tariff is actually restrict less import. So, therefore, these are the comparisons very important for understanding. As you already said, let us verify once again.

So, import quota higher domestic price than tariff. Now if it is import quota; now in the international level since you know higher domestic production than tariff, because it facilitate you know production. But higher domestic price than tariff, we need to understand carefully. But here it is quite clear due to tariff; it is you know to have you know to have import quota herewith by this, you know by tariff you know to have import quota of the same amount by tariff it is higher.

I mean at point 2 if we have a tariff it is importing more, but if at higher quantity through auctioning or through auctioning process now the price is actually gone up. Now, I mean in order to have import quota of 30 units again, so our price is actually gone up. So, therefore, here we are saying higher domestic price then tariff in case of import quota.

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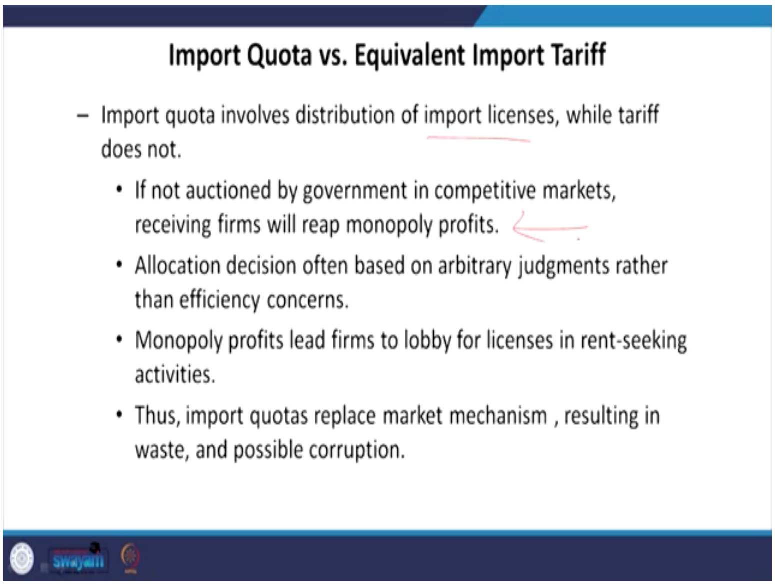

Similarly, I have already clarified the reason behind it, some other things can be clarified through this explanation. Import quota involves distribution of import license since which we have already said. While tariff does not have any kind of you know, restrictions. So, if not auctioned by government as I already said in competitive markets.

So, receiving firms will reap monopoly profits. Some of the firms if there is no auctioning of the thing then probably monopoly profits are also attached. Because, whoever are competitive one in the market they can able to import at even higher prices

Allocation decision usually be biased or usually biased due to lobby factor or I have been arbitrary judgment rather than efficiency concerns. You know, who are getting the auctions? Who are getting the leasing? Or licenses? And whoever has better lobby? So therefore, so, lobby for license in set seeking activities are observed. Import quotas replace market mechanism, which is resulted in waste and possible corruption in the - market.

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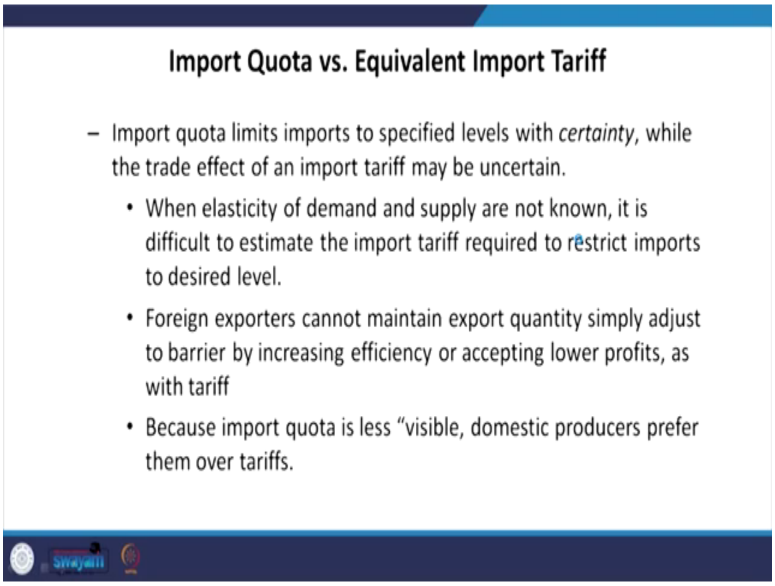

So, import quota usually limits you know the specified level with certainty for sure, it has direct impact. While the trade of an import tariff maybe uncertain trade might facilitate even more trade even if higher prices is there. It depends upon the elasticity of demand and supply.

So, it is very difficult to estimate the exact import you know, tariff which is required to restrict the import to a specified limit.

And regarding foreign exporters, exporters who cannot maintain export quantity simply because of adjusting with the barriers, by increasing efficiency or accepting lower profits (Refer Time: 16:42) we tariff because of import quota as is less, as is less visible domestic producers prefer them over tariffs, because the since that is less visible.

And as I already said tariff usually retaliated. If one country like in the present context if you know go by or go between the lines in the newspaper daily newspapers, we find there have been constant trade was between you know Chinese product and US product. Those are the discussion we have already made in the very beginning of a for lecture trade lecture. That was related to trade war between US and China. And similarly trade war between India and China discussed.

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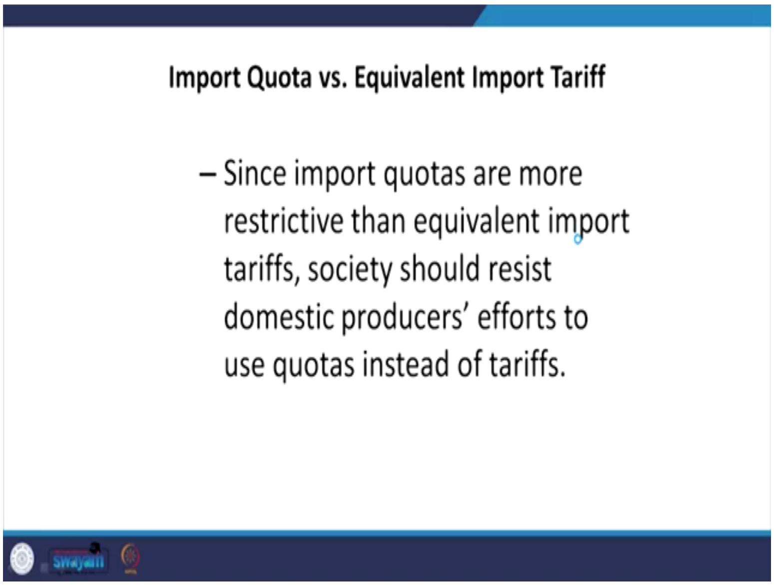

Now, so, in short what we wanted to say that since import quota are more restrictive than equivalent import tariff, society should resist domestic producers effort to use quota instead of tariffs. Since this is very effective.

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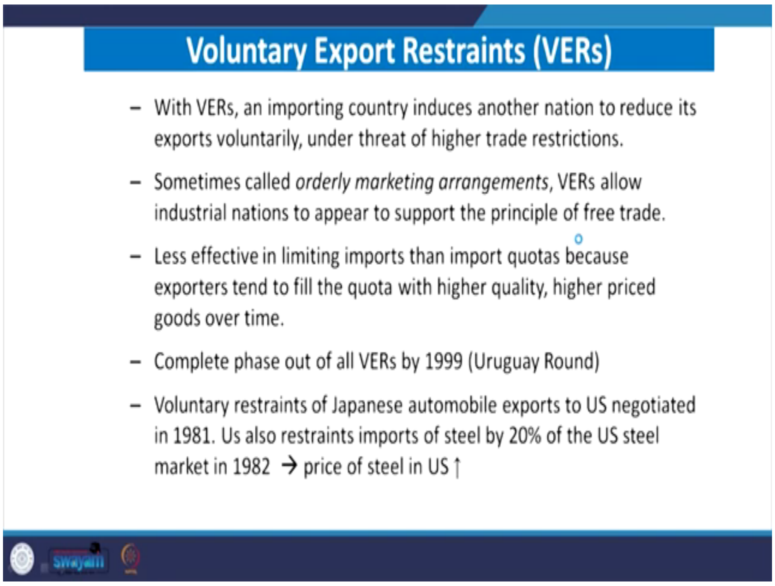

What are the other channels by which you know tariffs are made? Channels like voluntary export restraint is one of the channel those has been already abolished it is by the importing country induces another nation to reduce its exports voluntarily. The voluntary what was written under the threat of higher trade restrictions.

Now, country X will request the exporting country not to export if the exporting countries not a steel exporting there might be higher threat in terms of trade restrictions. So, therefore, this is mentioned as a voluntary attempt and usually called orderly marketing arrangement. It is a strategy in the international market to market the product in the international boundary.

And it is very less effective in limiting imports then quotas because of exporters usually tend to fill the quota with higher quantity and higher price goods over time. Now, the limit here actually impact lies with you know I mean, the exporting country.

What kind of argument I mean extent they are going to accept? So, this was completely phased out by I mean, in 1999, as for the discussion in Uruguay Round. So, V E R has actually abolished completely voluntary export restraints of Japanese, one of such example can be cited here.

The Japanese automobile exports to US negotiated in 1981. So, and US also restraints imports of steel by 20 percent of the US steel market in 1982. So, price of steel actually gone up in US and accordingly there are various other effects.

So, far is technical and administrative you know barriers are concerned, we have you know certain health and safety regulations which actually raise the cost of import that usually practiced by the developing countries through the channels called TBT's or SPS. Government also facing I mean purchasing restrictions which may be biased against foreign goods rebates for indirect taxes may be given to exporters and imports on importers of a commodity.

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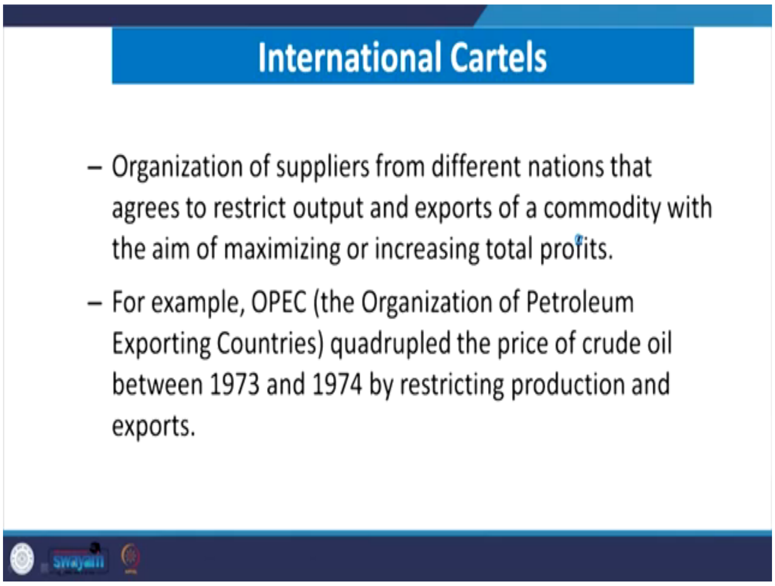

Similarly, another form of import non-tariff measure is due to international cartels. As we said, cartelization or agreement among the countries, secret agreement among the countries can be discussed or would be discussed in the next week. But here we are emphasizing on such some examples of cartelization, like OPEC was formed and how it has created the nation not to export. Or if they are importing or exporting they have you know certain contracts.

So, OPEC as I said it is Organization of Petroleum Exporting Countries quadrupled the price of crude oil between 73 to 74.

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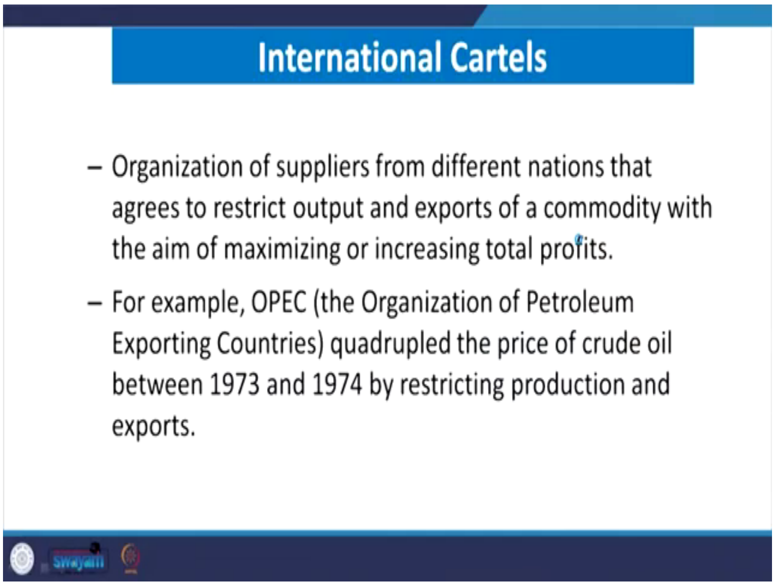

Since it was formed in 73, they restricted production and exported heavily.

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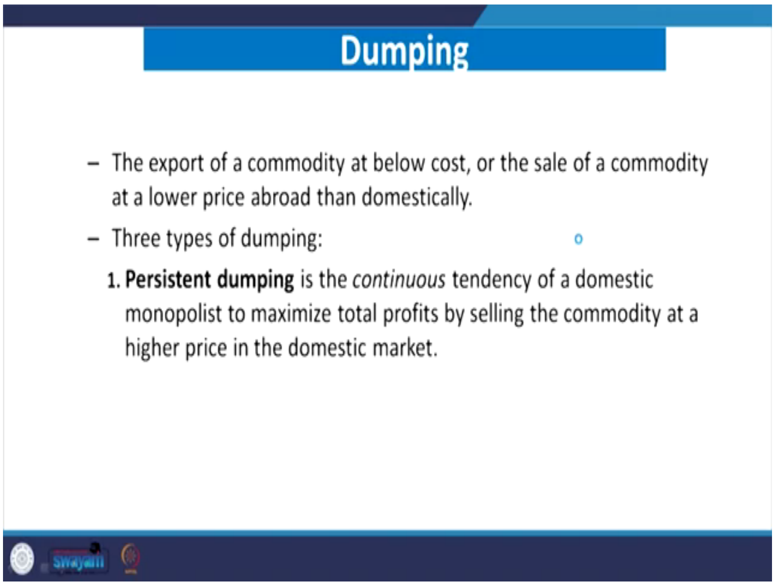

Similarly, dumping is another dimension where trade has been restricted. Dumping the word dump means we are if you know we are putting into the waste. Where as in international market you know I mean dump is referred to the context of competition. Some strategies may dump the competition or the strategy of another player.

Like deliberately setting lower prices in order to catching the market and many there are you know 1000 of forms of dumping practices; or many which are visible. Like you know for example, we can refer Chinese product, IT hardware product in our you know Indian market. Its actually mushrooming at a very low cost. That does not mean China's products of those variety in China is much (Refer Time: 22:08) if it is not right.

So, basically lowering the cost in international market is the answer for dumping. So, export of a commodity at below cost or sale of a commodity at a lower price abroad then domestically its called dumping. There are usually 3 types of dumping practiced one is called the persistent dumping sporadic I mean, another is called you know persistent dumping then you know persistent sorry, predatory dumping and sporadic dumping.

There are 3 types of dumping we usually refer. Persistent dumping are usually discussed as a continuous you know dumping strategy adopted by the monopolist to maximize total profit by selling the commodity at a higher prices in the domestic market.

So, in the domestic market the prices are charged at a higher prices and in inter market the charges lower.

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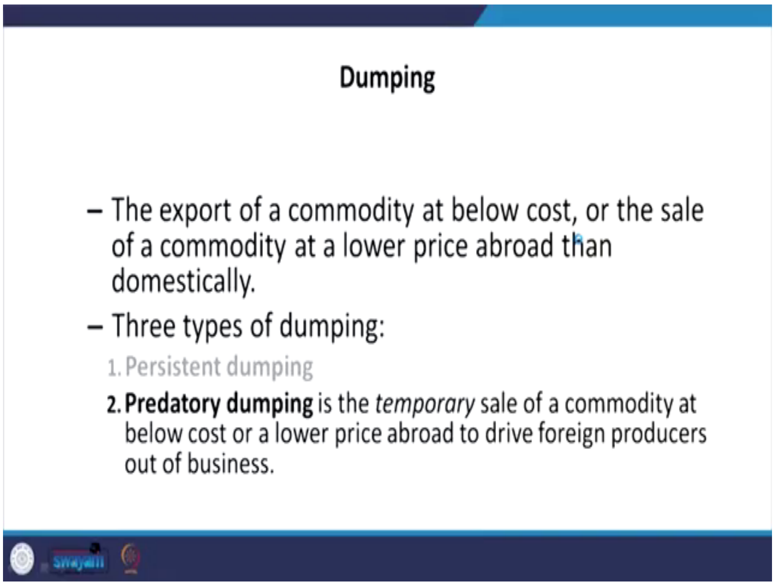

Whereas, in case of you know, predatory dumping it is a temporary phenomenon and of specific commodities by below. Their cost of production or lower prices abroad to drive foreign produces out of their business.

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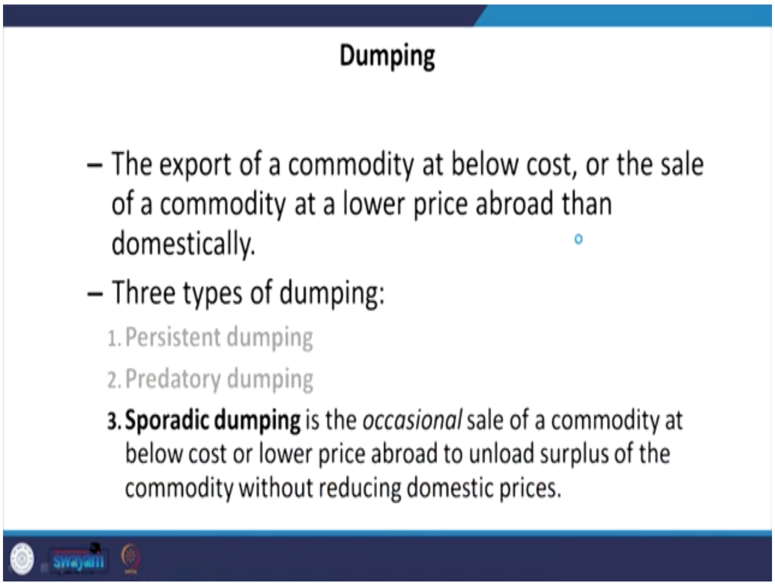

Then 3rd categories called sporadic dumping sporadic dumping which is usually occasionally practiced to sale a product at below cost or lower prices in the you know the market unload surplus of the commodity without reducing the domestic prices.

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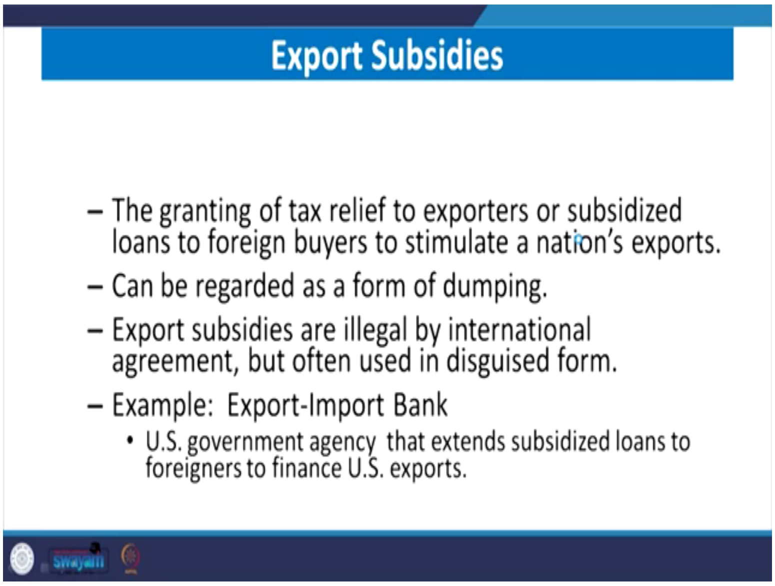

And dumping is very difficult to check therefore, certain anti-dumping laws or you know made as a defense measure to the you know to facilitate the trade in international market. Now, in this context we are now you know explaining another dimension which is actually very very important for our understanding.

Now this is the dimension where we discuss the export subsidies. As I have already mentioned like you know, there are various forms of export control. One for example, those are exporting some of the important products to other country, the you know to facilitate the trade the government or the concerned country may give tax relief to the exporters or subsidise their loans to the foreign buyers.

Foreign buyers are taking loans of the for example, we take so many raw materials from other countries. Raw materials process it or reprocess and export it to many other country. Now, in order to purchase the raw materials the concerned country might you know, do one thing, might facilitate the importers in a various different manner. Like the buyer may be given you know subsidies or loan to buy those products.

Like for example, recently you know we may not just simply say that you know bullet train as received by India. Who has given I mean subsidies to us to purchase their bullet train? It is Japanese government and they you they have had you know recession in their banking sector; the you know interest rate was almost at a very you know near about 0 and negative rate.

And so, in order to facilitate their own you know growth and export simultaneously they extended those support to Indian economy.

So, by which we could able to purchase their product largely. So, therefore, foreign loans are you know simultaneously very important, which stimulate I mean stimulate national exports. This can be regarded as a form of dumping as well. Export subsidies I mean as I told you reducing prices internationally is possible if I actually facilitating for example, you are selling the product in let it be in European countries or England.

So, in order to sell at a low price our government might you know, give certain discount or certain you know subsidies on the price of the product. So, lowering the price in international market nothing, but explained as dumping.

Now, exports subsidies are therefore, illegal by international agreement and these has been discussed you know in various forms. Now, one such example here is given, Export-Import Bank, US government agency that extent you know the loans to the foreigners at a subsidized rate to finance US exports. So, this is example given.

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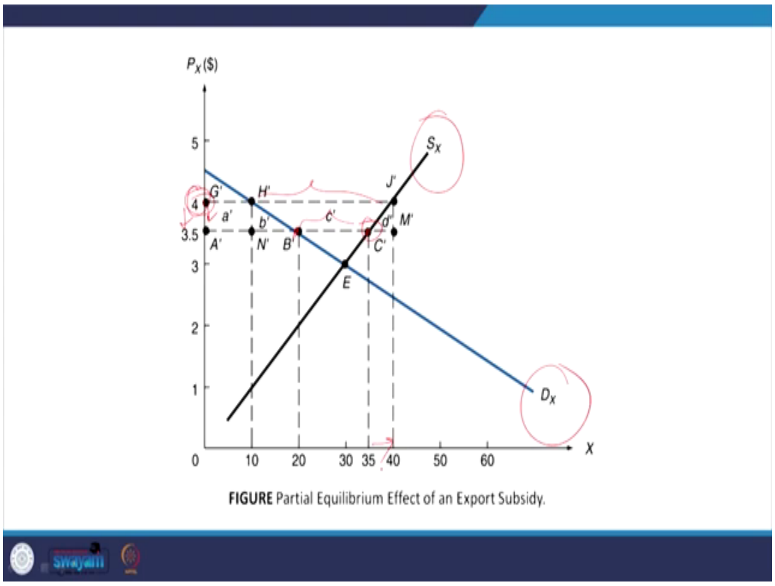

FIGURE Partial Equilibrium Effect of an Export Subsidy.

Now, what here we are mentioning is the following. We are mentioning a diagram which will explain export subsidies very very clearly. The export here, what is important? Why export subsidies? It is let us be the case that in international prices you know our prices is comparatively higher. So, you know to let it be given the partial equilibrium set of with demand and supply of a particular product particular you know product which is being traded.

Now, their country prices at 4. Now at 4 they so what is going to happen? Now so, export subsidy can you now largely you know increase the demand for the product. If the price is at 4 we are giving subsidy so that you know the price will be little lower at 3.5.

And at 3.5 what is important now? We are actually, I mean the demand in the international market is actually increasing. Demand in the international market increasing by which the resulting price is lower as compared to before subsidy.

So, the you know extent of you know, supply also increases and the demand also increases in the international market. And therefore, since demand increases and supply increases, there will be less surplus left for the domestic country and those will be sold. So, export subsidy actually tends to you know increase the production. Production actually increases and thereby can able to you know earn more I mean capture market.

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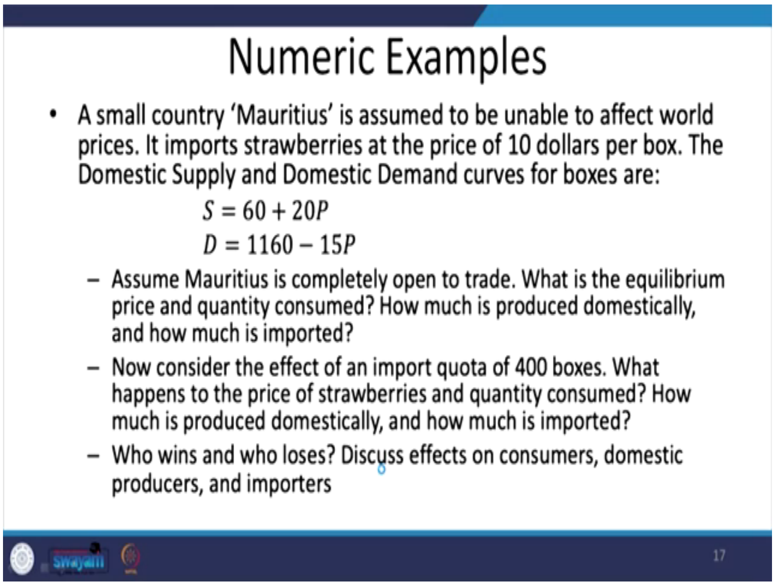

One such numeric example can be explained, which will verify the exact or the discussion of you know export import and the import quota very clearly. Let us have an example with a demand pattern and supply pattern. A small country like Mauritius, we are now referring a small country context like Mauritius. It is assumed to be unable to affect world prices.

So, what are the demand and supply? As is mentioned here with request to equations it is not effecting world prices. It imports strawberries at a price 10 dollars per box.

Now, a price information for strawberries is given. These are the price and quantity of strawberries. The domestic supply and demand curves are I mean curves for boxes are given with the help of S and D diagram. Assume that Mauritius is completely open to trade, what is equilibrium price and quantity consumed?

So, let us draw the diagram now these are quantity these are quantity at the time of at the time of equilibrium these and there is a equilibrium price and quantity. So, therefore, we can consider S and Q to be equal at a certain quantity and certain price, alright.

So, after solving it like you know you can you can solve like this 60 plus 20 P is equal to 1160 minus 15 P. So, let us take together 20 I mean, plus 15 P 35 P, ok which is equal to 1160 minus 60. So, which is roughly around this is 1100, ok. So, likewise this we can define P, P is here P is equal to 1100 divided by 35.

So, a price can be determined. So, let this VBP the P star which is equal to 1100 divided by 35 and given the demand and supply curve. And this is our Q star we can convert this P two derive the Q star.

After defining the Q and P, we can able to trace. Now if it is 10, I mean multiplied 10 it is 350 multiplied 20 it is around 6-700. So, 3 multiplied 3. I mean basically what I am saying this is you know around 30 ok. So, I mean 10 it is 350, 35 to 10 and 20, 30. So, around 30 buyers as to be 1100. I mean, this is the equilibrium price.

Now price is said to be 10-100 let it be 10 per dollar. I mean, dollar per box. If the prices somewhere as 10, what is going to happen? Now look at this at this price, now here is the demand, here is the supply.

Now, you put this 10 on the supply curve you will get a figure how much is actually supplied. put this 10 on the demand curve, how much is actually demanded? This gap is actually import this is called import; imported amount. So, now, first answer can be dealt. How much is imported?.

Now, consider the effect of an import quota of 400 boxes. Now here let it be you know, I mean you can find out the quantity and this difference very clearly. Now if it is only 400 then what happens to the price of strawberry? Now put this 400. Now if it is only 400 boxes what happens to the price of strawberries and quantity consumed?

We have already discussed in the previous diagram. If a restricting in the 30 units then what is going to happen? So, I suggest that you should go through this you know discussion you know periods specially for you know expanding the numerical examples we can find out. Also we can find out who wins who loses based on this example.

So, go through and try to work out other two can easily be derived. I think you know this is all about the you know effects of non-tariff barriers as we discussed. And we will discuss the TBT's and SPS is in the next class. With this, let me you know close here.

Thank you.