## Strategic Trade and protectionism - Theories and Empirics Prof. Pratap Chandra Mohanty Department of Humanities and Social Sciences Indian Institute of Technology, Roorkee

# Lecture – 27 Type of Protections

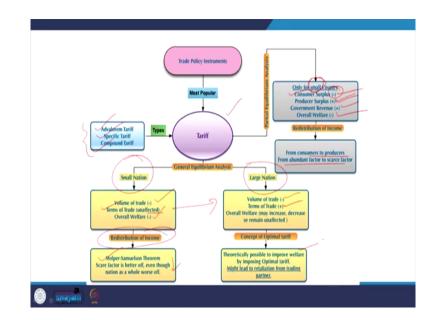
Welcome friends, once again to the module of NPTEL on Strategic Trade and Protectionism. We are now particularly explaining trade protectionism chapters, specially identifying that various concepts or the conceptualization of protectionism why it is required, why it is prepare and against.

And what kind of recent cases are there, how these have been restricted. So, this is week number 6 and lecture number 27. Myself Dr. Pratap Mohanty, faculty member in the department of Humanities and Social Science IIT Roorkee. So, let us explain and understand you know why there is a trade, why there is a protectionism we have already clarified is not it.

Now, question arises, what are the different types of protectionism which actually been restricted over time and which should be restricted actually in different forum. So, let us explore the types and while understanding the types of protectionism, we also should all understand what kind of implications of those types on the economy of that particular country or the or on others.

So, types of protections are very very essential from various perspectives. Now, let us have a big framework, you know what exactly we mean by protectionism and how it is getting covered.

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Now, the first aspect is tariff. In the protectionism, in the types we are supposed to understand tariff in detail. Now, second aspect is non tariff, then a within tariff here we are presenting that details of tariff. So, within tariff, now is part of tariff as we know it is part of our trade policy instrument and tariff broadly divided into three types (Refer Time: 02:15) explain ad valorem specific and compound.

Broadly they are of three types, now in a partial equilibrium set off as I told you through in a through the narrower you know perspective of explaining or understanding trade as a protection through tariffs, it helps or britches in some kind of you know dimensions like you know for consumers there is a surplus through tariff special in a small country context. Whereas, for producers it is you know for consumers it is not surplus it is deficit for producers it is a surplus.

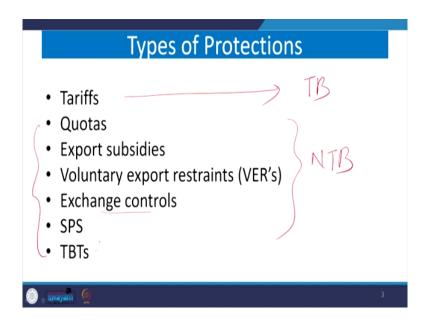
Why did so, we will explain with the help of diagram and examples for government revenue it is plus for overall welfare it is negative. So, these must have been understood through to detail framework. Now, is does it have any income redistribution channels? Yes it has certain channels of redistribution from consumers to producers, specially from abundant factor to scarce factor.

Now, these tariffs can also be helped in you know; explaining small country impact as well as large county nations. So, largely we started the discussion of whether if a small country impose tariffs, then it does not impact the terms of trade of or though rest of the world. So, therefore, usually small country does not defer or does not change the terms of trade and the net welfare changes to our rest of the world is on affected. So, the terms of trade on affected as I told already explained earlier is not it.

Whereas, overall welfare for the small country is negative will explain it actually volume of trade is going to be negative. So, part of the distribution regarding who I mean; let us compare the large country nation. Volume of trade is negative, terms of trade is going to be positivity if it is the large country impose you know tariff. So, overall welfare may increase decrease depending upon the volume of trade, the elasticity of trade and depending upon the context.

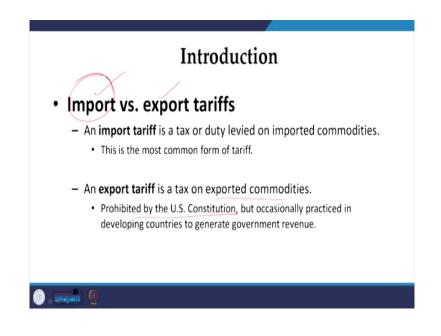
Now, so far as income distribution is concerned we have talked about SS theorem, Stolper Samuelson theorem, scare factor is better off even though nation as a whole worse off, but is there were redistribution of income. Similarly, the concept of optimal tariff can be identified theoretically possible to improve welfare by imposing optimal tariff. So, these are the issues going to be discussed and you know explained in our subsequent lectures.

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So, now we are here to explain different types of protection one by one. We have divided in the I mean; discussed in the last class and divided largely to these are non tariff barriers and these are this is tariff barriers ok. Now, broadly quota subsidies we know voluntary VER, export controls SPS and TBTs; SPS stands for sanitary and phytosanitary measures TBT stands for Technical Barriers to Trade. So, we will discuss the meaning of each of this now on.

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Now, as a introduction to the understanding of tariff, we let us compare I mean; let us try to understand what do mean by tariff. Tariff is the restrictions on trades. Tariffs is the rest I mean restriction the you know trade. Tax; basically, is a restriction or tariff or a tax or the duty levied on the imported commodities.

So, usually tariff is referred to is tax on export and import, but we know, but largely, no country impose tax on exports because you know while we impose tax on exports that will demotivate the exporters to sale their products because, the products will be internationally less competitive due to the higher prices. So, the concerned country while imposing tariffs. So, usually the ta you know impose tariffs on imports not on exports. So, therefore, largely it is said the tax levied or the duty levied on imported commodities are called tariff. These are, this is also called import tariff.

So, though tariff is imposed on both, but usually practices is on import because, you know if you are imposing tariff on imports this will restrict the imports to the country and this helps in improving balance of payment situation, this helps in you know domestic protection, this helps in many other know channels.

So, the most common form of restrictions or the protectionism is called tariffs. Export tariff is a tax expo on the exported commodities prohibited by US constitution, but occasionally practice in developing countries to generate government revenue ok. So, developing countries also practice this.

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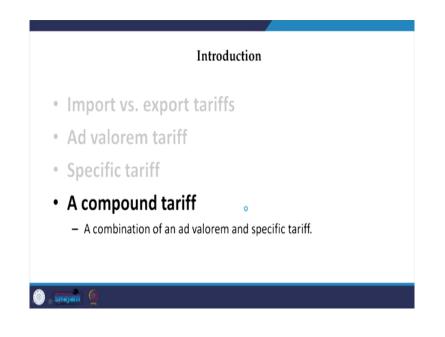
Now, there are broadly, there are different categories ad valorem; you know, co then unit or specific tariff and third one is called compound tariffs. Ad valorem is on the percentage you know charge in the value of the traded commodities.

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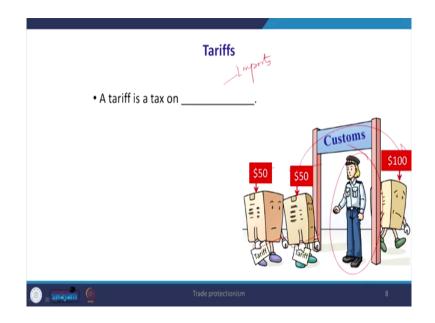
Then it is basically fixed come percentage. Now, specific tariff is basically fixed amount not the percent on the traded volume.

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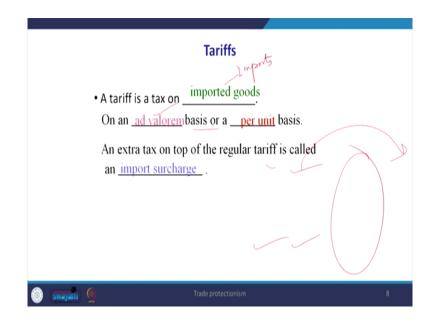
Whereas, compound tariff is simply a mixed of the these two you know; there are two rates. At the base rate with fixed and beyond that if there is more trade then ad valorem is imposed.

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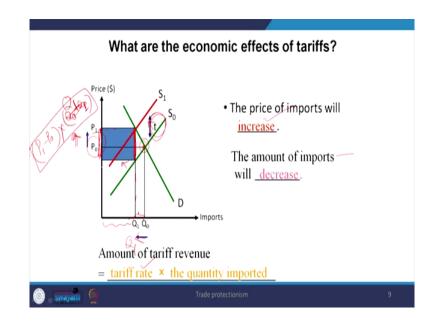
So, now tariff let us have a testing on it or let us understand it tariff is a tax on, now you can fill up; tax on not exports or imports. So, the customs officials usually you know check all the move movement or entry to the country. Now, therefore, here is this picture of customs officer whether they have paid tariff of 50 dollar or not that amounts 200 dollars. So, that is clarified from the picture.

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Now, it is as I just said tariff is a tax on imported goods on an which basis. Ad valorem basis or specific basis or the fixed amount or the unit charge. So, this is if it on an generally on ad valorem at the present is basis or this is also called on a unit basis if the unit increases the percentage tax increases, so per unit basis. So, an extra tax on top of the regular tariff is called what? Extra tax on the top of that it simply called surcharge; surcharge on the import.

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So, likewise surcharge in taxes we usually see in different context. Now as an (Refer Time: 09:12) to the understanding of tariff will you know; talk about small small country and large country you know debates or discussion through diagrams later on.

But let us try very clearly to understand the concepts of tariffs and the effects of tariffs through this basic partial equilibrium setups. Why partial we are only sticking to one community and one market or one market of one country. So, we are demand and supply of their product is discussed. Now, due to tariffs; the there are restrictions to the to the supply. So, the supply gets restricted. So, whatever the supply you usually have which result in determining certain level of prices now this has been restricted.

So, supply initially badly effected. So, which has caused the supply to be you know backward shifted backward or towards left. So, due to which on the aggregate in the international level

the prices actually increased. So, this has caused to the rise in the prices and fall in the quantity demanded or supply in the world market. So, accordingly, when you can evaluate whether it is going to be good for the country or not good for the country.

Now, you know the price of imports, price of imports as a quiz question; you can also you know think of from the perspective of your evaluation from the you know context of evaluation how you will be evaluated and what kind of objective question could be set. Some of the examples are given in the due course of the lecture.

Now, so what is understood from this diagram? It says that price of the commodities if increases, we have already highlighted here. So, price of the imported goods actually increased. So, increase is the answer whereas, the quantity if I have said the amount of imports will fall or reduce. I have already emphasized this will be notated with Q 1. So, there has been a fall. So, fall is highlighted here, you can mark the difference.

Now, so therefore, there is a decrease in the imports. Now, what happens to the you know when the country impose tariffs on the imported items or the imported products it is quite sure that you know per unit price increased. So, who earns that income? That income actually earned by the country or the import officials are imposed the taxes on though. So, the ministry is going to receive that money the customs office will get that money per unit as by the distance is P 1 minus P 0.

So, times you know Q 1 minus Q 0 Q 0 sorry, Q 0 minus Q 1. So, that is Q 0 minus Q 1. So, this is the total revenue the customs office is going to receive, so highlighted with this in this diagram.

So, tariff rate basically the rate of tariffs, mentioned by the vertical distance this is as we understand in the micro economic approach where the vertical distance measures the rate of tariff. Here also we have highlighted as t. So, t times, t times the quantity imported. So, now the quantity imported is of this Q 1; Q 1.

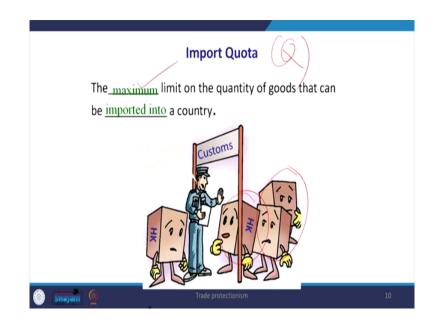
So, total revenue actually total this is the fall, this is the fall in the tariff. So, this is only Q simply, this is only Q 1 because, Q 1 is the amount imported times the t the extent of t imposed on those. So, that much of amount will be actually paid to the custom office while getting the permission for import.

So, similarly other forms of restrictions are like import quota. Now, what do you mean by import quota? Import quota are like you know quota you know we have mentioned the word is called quota; that means, certain amount of amount of imports you are allowed as a trader or as a arbitrageur or even as a importer or you are having an import house you will be allowed you have to take the permission to import certain limit.

There are many sectors which are quite threat to the domestic production and which consistently raise number of you know restrictions to the domestic competition or the competition is getting you know swayed to you know becoming less competitive our infant industries probably in trade therefore, certain quotas in certain sectors are imposed.

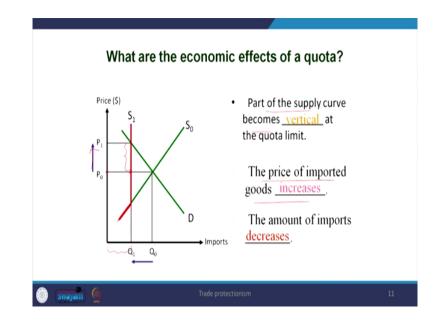
So, when quota is imposed; what are the problems? The quota basically restrict the extent of or the amount of product to be imported. You cannot just be allowed to import any amount even if you are paying taxes, you I mean in case of tariffs any amount you can import, but in case quota you cannot go beyond that.

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So, basically in the case of import quota; we have quantity restrictions, where is in case of tariff which have priced restrictions. So, the they what is the limit of the quantity of goods that can be can be produced in a country. So, customs official now is actually restrictions the back you know the extent the box to be imported, the quantity to be imported. Now, the maximum that is why the maximum limit is allowed here and the goods that can be imported to a country.

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So, is this actually and the answer behind the you know concept of quota. So, what are the economic effects? Also we have already clarified for tariff. Now, what kind of a economy effects of quota? In the next class will be explaining in detail for the comparison where know whether comparison between tariff and quota, whether tariff is good for the country or quotas should be good for country.

So, those things will be taken off steadily with you know detailed examples, but let us understand the overview of all those instruments being exercised by different countries in different time period. Now, with the same partial equilibrium set off let us you know have an a partial equilibrium diagram here we have demand and supply. Now, what here is presented is import quota with a caveat. Part of the supply curve becomes you know restricted; restricted or vertical since a quota limit is imposed. Now, beyond this since it is vertical, beyond this you are not allowed to import. You are not allowed to import.

So, the price of imported goods are now due to these price as for the equilibrium price is here and this price gets in increase. Why price gets increased? Because now the export or we used to export an already have had a contract with the importer country that you are supposed to any import as per the price, but now in between the government has changes restrictions and now government you know impose with the fact that you cannot import that much.

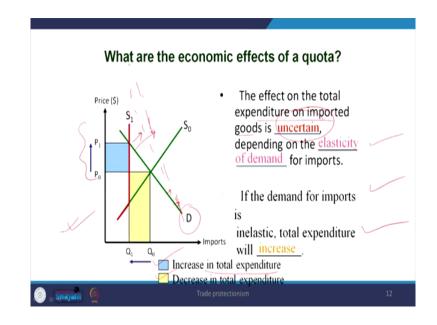
Now, since your import bargaining is becoming in a sequenced by the extent of import. So, the now the bargaining power lies with the exporter since they are exporting to this country. So, they charge since they are say exporting less they charge literally higher prices. Now, this is also visible from the diagram.

Now, who is earning that money it is not earned by the domestic country that is one of the imports important you know aspects of import quota the revenue not earned by the government. So, price since price of imported goods increase. So, the amount of imports though restricted.

Now, the import quota you cannot exceed Q 1 that is clearly mentioned. So, amount of quantity falls as similar in tariff lines. So, this has helped in reduce reduction of you know imports, but now question is it by in the comparison of these two, what is more effective? We will actually see it in detail in our next class.

But now, we are only concerned with clarifying detailed restriction different type of types of you know this title of the presentation today or the title of this lecture is specifically and different instrument of restrictions. So, quota is one of the form. This is what we have already explained.

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Now, price increase and you know for in the quantity. So, effects of the total expenditure on imported good actually falls depending upon, now again depending upon what? So, effect of the total expenditure on; total expenditure on goods is uncertain.

Total expenditure is uncertain, where a depending upon the elasticity of the demand imported. But even if we restrictive it is you know very elastic in nature then probably we can able to charge whether it has actually undermined the expenditure. So, increase here its saying increase in the total expenditure this part, this colour, these colours are decrease in total expenditure.

So, the exact expenditure rise or fall depending upon the elasticity of elasticity of demand. If the demand for import is inelastic demand for import is inelastic. So that means, this diagram will be more you know steeper. Now, when these gets steeper; it is tilting toward this side this side little less changes. So, it might be like these, might be like these, like these. So, the vertical distance now will be higher. So, prices imposed will be much higher as compared to fall in the quantity.

So, therefore, when it is inelastic; total expenditure by price will rise and, so the total expenditure since why rise because the price I mean the expenditure due to higher prices are passing the fall in the quantity ok.

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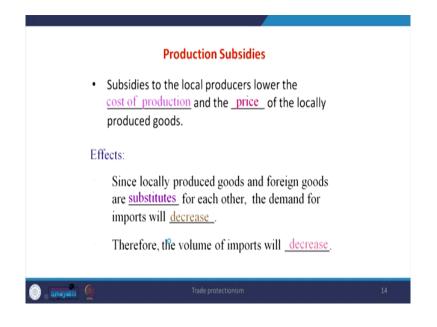
So, this is one of the very very important objective question you must note it very carefully and if you have understood the diagram you may go through again and clarify it accordingly.

Similarly, there are certain other you know; channels of restrictions like VER Voluntary Export Restraints programmes. It is usually you know very you know usually not imposed by

member countries, rarely observed and specially observed by in a context where the UK restricted Indian ex textile products and usually these are the importing country sets a limit on the you know export volume for the exporting country. The importing country sets the maximum limit, maximum export volume for the exporting country.

So, who limits that is why the importing country. So, below these limit, the imported goods will be tax at a lower tariff, but once you exceed it the tariff line will be higher much higher. Now, it is you know progressively or it is has a progressive rate. So, it is the voluntary in the sense that the exporting country can you know freely decide the amount of expose given the tariff structure imposed by the importing country.

So, generally it is at the request of the importing country to the exporting country to export or to restrict their export to other countries since there are certain tariff lines imposed. So, limits accordingly we said, but the freely decided by the exporting country at the certain tariff lines. (Refer Slide Time: 21:13)



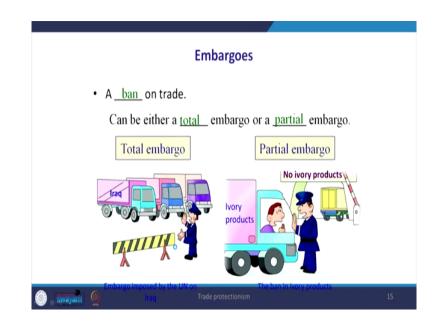
Now, another instrument of protection is called production subsidies. Now, this has been largely debated in different world develop World Trade Organization forums or rounds of WTO like Doha and round Marrakesh round, you know kun round, then you know you know DDA Doha you know; development agenda, then Uruguay around you know in various rounds, this has been largely debated. So, subsidy is basically this leads to subsidies to the local producers.

Now, why it is important because subsidies are given to the producers? So, that they can be competitive international market they can minimize the prices charge in the international market and that will attract huge you know foreign revenue to the domestic country and the domestic country can be claimed is the monopoly monopolist in the international market. So, the large number of you know monopoly behaviour are exercised due to the production subsidies indirectly facilitated by the domestic country. So, the subsidies are one sort of strategies to restrict trade.

So, therefore, these are also part of trade protectionism subsidies to the local producers lower the cost of production as I just said and the price of the locally you know produce goods. So, price can be you know reduced. Now what really happens? Where subsidies are given, we have reduced the you know cost of production. So, cost of production will actually increase the supply and since it is externally determined, supply curve will be shifted towards right, we can derive it actually differently.

Now, since the locally produced goods and foreign goods are, you know; substitutes for each other, the demand for import will decrease sub. Why substitutes because, you know the prices are now becoming very competitive. So, depending upon what kind of subsidies are given and on which channels it is given. There was a volume of imports will actually decrease because of the fact that; fact that we have given huge facilitation to the you know importers to produce on their own. So, the extent of imports will be restricted.

So, they will better to be facilitated to produce rather imported. So, that is one of the channels by which trade restricts us. So, embargoes are also another channels of restriction called it is a strict or ban on goods those are traded. So, ban on impose open the case I will talk about those examples in with the help of many tables the and many you know examples will call I have to the collection from different WTO rounds and different official data will be explained to you in the later lecture. (Refer Slide Time: 23:58)



So, now embargoes can be either a, total embargo or a partial embargo I mean you can restrict 100 percent or partial we can restrict has total embargo strict ban, they are on many products you know similarly, partially you can allowed some to enter to the domestic boundary by the custom officials some of are not allowed.

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Some other channels are like foreign exchange controlled. Foreign exchange control the government controls the foreign exchange or foreign currencies in the market. I think usually you might see in airports that the foreign a customs official restrict the foreign currency to be entered into the country. So, by restricting like you know foreign car exchange is possible in certain exchanges certain you know transaction in other it is not allowed.

Now, if I said one example India's currency; how it is accepted international market after since the Tarapore committee which was formed in the late 90s which is allowed our current account to be; current account to be you know fully convertible current account you will you will try to get to know about this in balance of payment chapter in different papers.

So, current account means which is consisting of we know current account consisting of the transaction of goods and you know services, merchandise goods and services. So, which is

usually a short term phenomenon; though long term transactions are also allowed, but usually the volume of trade are very limited very you know you know limited in number I mean amount. Where as in the capital I mean; account, our currencies are not allowed.

I mean Tarapure committee was you know constituted or that did not actually finally, facilitate or allow our capital account to be convertible. Current account means all the transaction in the current account are fully convertible. So, which means all transaction under the purview of current account can be you know transaction internally; that means, how rupees can easily be accepted through the current account in the international transactions.

Whereas, all kind of FDI channels or FIA channels are actually not allowed. Rupees are not allowed we have to any party which are interested to have been you know investment in our country, they have to come up with foreign exchange other currencies or other denominations. Like usually, you know dollar and euro or pound there are many standard currency is defined. So, accordingly it is defined.

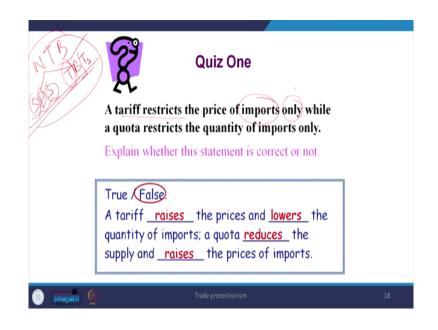
So, the restrictions are made in order to protect the country through these channels. So, therefore, government controls the exchange rate and the availability of foreign currencies. Foreign currencies is one of the channels which actually facilitates trade as well.

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So, more difficulty and costly for importers to obtain foreign currencies and is less foreign currencies available to pay for foreign goods import will be automatically restricted.

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So, therefore, this is one of the major instruments of trade having said all those directions of our discussion. So, we are now poised with many questions. Many you know doubts in our mind. So, this is even not completing our patterns or instrument of restrictions or different types of restriction other types are non tariff barriers which are very prominent in nature in the present days like sanitary and phytosanitary measures tech and technical barriers to trade measures.

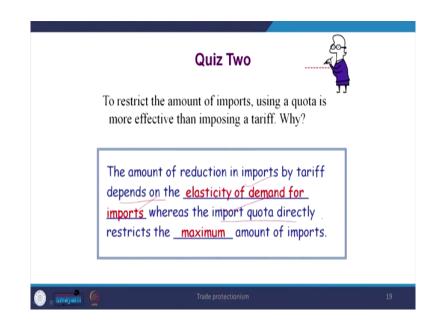
So, in the present days; due to various forms of substitutability of products in the trade basket. So, member countries have been trying their best to restrict the entry of other products through the channels of sanitary or phytosanitary measures.

So, they simply say that this is not fulfilling the standards the sanitary standards or there are some technical barriers also since you know transaction requires certainly note you know documentation, certain procedures if any procedures are actually felt some technicalities are felt. So, simply the member countries raise or the importing country raised certain restriction that you know your consignment is not allowed to enter to our domestic boundaries.

So, therefore, they restrict your product to be imported. So, those are TBT they are quite advanced you know topics in our discussion will have certain session complete dedication or dedicated sections for non tariff barriers in the next class next week.

Now, after explaining barriers or you know basic instrument of restrictions let us have some you know quiz answers, quiz related questions and answer to test our beginning you know fundamentals of restrictions. We will have separate you know topics, separate I mean; in the next lecture, let us start with some channels. A tariff restricts the price of imports only while a quota restrict quantity of imports only.

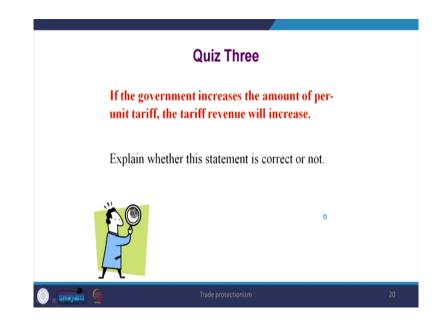
A tariff restricts the price of imports only while quota restricts the quantity of imports only, is it always true. So, explain this is as clearly as possible. Now, this is not 100 percent correct because as I said tariff restricts price of imports, it is wrong. Tariffs also restrict price of exports usually it is imports. So, therefore, it is not only. Only is not the answer, then a tariff raises the prices and where as lowers the quantity of imports whereas, the quota reduces the supply and raises the price of imports we have already explained. (Refer Slide Time: 30:19)



In a second set, quiz number two, question quiz two question. So, to restrict the amount of imports using a quota is more effective than imposing tariffs, why is it so?

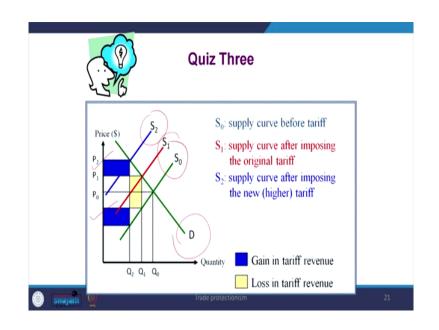
So, for as restriction of import is concerns quota is more effective. Only because quota has a clear defined limit whereas, tariff does not have. But, quota has its own flip sight. You can find out very clearly the amount of reduction in imposed by tariffs depends on depends on elasticity of demand for imports whereas, the import quota directly restricts the maximum amount of imports. So, this is a direct connection whereas, tariff does not have.

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So, let us test the third one; where if the government increases the amount of per unit tariff, the tariff revenue will increase.

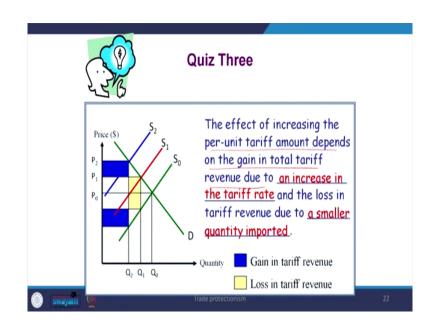
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Explain whether this statement this statement may not be true, it depends upon the elasticity of our import and export. So, that is demand and supply I really you know when their elasticity is are important the extent of restriction is do or it impose is very important to calculate the exact implications of tat tariff and its revenue earning by the government. So, these are the details we can find out through the vertical gaps.

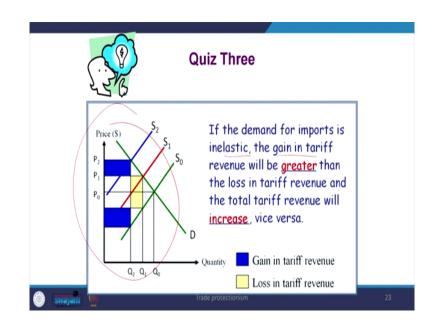
Now, though the diagrams are not emphasizing the exact elastics. So, here we can easily say that due to higher tariffs you know gains of revenue is observed. But in reality that there might be some losses as well.

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So, losses can be identified through various approaches. So, let us understand the effect of increasing the per unit tariff amount depends on the gains from tariff revenue due to, due to an increase in the rate of tariff, where as the loss in tariff revenue due to smaller quantity imported.

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And similarly, if the demand for import is inelastic, the gain in tariff revenue will be greater since it is inelastic. Then the, I mean you can examine through the diagram as I mentioned if it is inelastic then it is greater otherwise it a, I mean the revenue actually increases otherwise the reverse is true.

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So, this is the example we have already started in the last lecture, last this additions to made in this argument though we have made it earlier in our you know a first week of the module. We just simply wanted to say that the china and U S trade war has been I mean on debate over 90 days.

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Where they have lots of discussion on intellectual property, you know 5G issues, made in China and related to their threat to their manufacturing products, energy related issue, agricultural imports, auto tariffs, market access for banks, you know these are again very important debates, we may discuss in the next class.

You can go through the slide and will carry forward these two set of discussion while trying to evaluate the exact implication of tariff ok. And specially in the next week, where well be emphasizing the non tariff measures or these intellectual property use probably will be discussed in detail. So, I hope you have raised many doubts and will be steadily clarifying this concept. Here I should stop and will carry forwarded.

Thank you.