

Strategic Trade and protectionism - Theories and Empirics
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Lecture – 37
Theory of Customs Union

Welcome to the trade module and the NPTEL MOOC module in particular on you know Strategic Trade and protectionism. Here we are on our 30 you know seventh lecture week number 8 ah. Specifically confining our explanation our discussion on purely on trade integration or economic integration where countries strategies to integrate themselves in a to differentiate their trade in order to tap the benefit in the international you know trade you know conflicts.

So, therefore, this is this carries one of the important very very important you know aspect of strategies or important strategies in the international discussion ah. And this this is the caveat of our you know argument on trade protectionism. Here we are emphasizing on theory of customs union as one of the famous discussion on international trade you know trade agreements where the member countries have been allowed to go for union among themselves.

Now, what we wanted to or what we use to discuss in this lecture are the following. We are going to discuss on different types of economic integration static or dynamic where we will be emphasizing on trade creation versus trade diversion. We will be also emphasizing on the second based theory because the first based of having the best union is not possible. So, second best is important. We are also supposed to know the dynamic aspects of union regime.

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Contents

- Economic integration refers to the commercial policy of discriminatively reducing or eliminating barriers only among the nations joining together.
- Types of Economic Integration
 - The Static Effects
 - Trade Creation and Trade Diversion
- The Second Best Theory
- The Dynamic Effect

So, what do you mean by economic integration as we already discussed. This refers to commercial policy of discriminatively you know which is I mean discriminatively reducing the different kinds of barriers among the nations which are joining together. So, this basically I mean refers to economic policies or the commercial policies that that the reducing discrimination among the member countries.

So, understanding the different types of blocks which are responsible for various forms of integration ah. We have already explored the differences of each of the types in the previous lecture where one of the most important union is called customs union where some where we said customs officials are required or customs inspector at the entry is required or in sometimes we are saying it is not required specially in customs union case it is not required. And for you know free trade area where differential I mean charging different treatment to other countries different you know restriction to other countries the. So, therefore, customs officials or the inspector is very essential.

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Types of Trade Blocs

1. **Preferential Trade Arrangements:** lower tariffs for specific countries (British Common Wealth)
2. **Free Trade Area (FTA):** lower tariffs among members but tariff rates for non-members aren't the same (AFTA, NAFTA)
3. **Customs Union:** lower tariff for members and common tariff rates for non-members (Benelux)
4. **Common Market:** same as 3 and common trade policy and free factor mobility (EC 1958-1993)
5. **Economic Union:** same as 4 and common economic policies (EU 1993-) -> Monetary Union: same as 4 and same currency.

Now, as I have already said in the last class, I am repeating my sentence probably somewhere I have written that European Union has not yet been defined any economic union that please correct that particular bullet point ah. I have already retained the in the previous slide somewhere that you know from 1993 onwards European union is very much defined as economic union and please correct the previous slide. Ah previous lecture in slide where I have mentioned that it is not yet been defined, but actually it is the economic union.

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Customs union

- Removes all barriers to trade among members and harmonizes trade policies toward the rest of the world.
- Free trade within the area, and common national trade policies with outsiders (⇒ no need for customs inspectors)
- Examples:
 - European Union (EU), or European Common Market, 1957, between West Germany, France, Italy, Belgium, the Netherlands, and Luxembourg.
 - *Zollverein*, 1834, between large number of sovereign German states
 - European Economic Community (till 1992)

Now, since we have already discussed let us move on to define customs union in detail where I have already said repeatedly said no need for customs inspector and because of the fact that all the trade policies are actually treated common their harmonized trade policies or across rest of the world. And famous examples till 1992 was of European economic community, European union also, European common market till I mean in 1997 especially during that time formed by these specific countries were later on they are not defined as custom union. They are actually joined as different group called may be common market.

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Trade-Creating Customs Unions

- **Trade creation** occurs when domestic production in a member nation is replaced by lower-cost imports from another member nation.
 - Leads to *increased welfare for members* as nations specialize in comparative advantages.
 - Leads to *increased welfare for non-members* as increased real income spills over into increased imports from rest of the world.

Let us come to the debate of theory of customs union. Theory of customs union purely defined as a theory because of the fact that when we have you know countries attaching themselves for some possibility of groups or some possibility of integration ah. These countries are largely trying to define many you know every use of it, may be in terms of cheap cost of production ah, may be in terms of differentiated products, may be in terms of you know other policy related strategies which help them you know conceptualizing their trade modules differently.

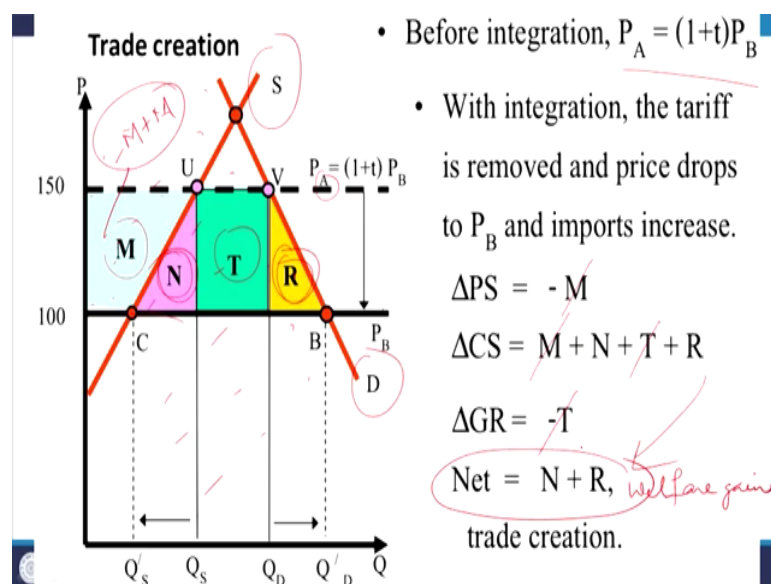
Now, therefore, the theory of customs union is broadly divided into 2 categories. One is called trade creation because to creating customs union and in the next slide we will be talking about trade diverting customs union. Look at here is a customs union what do you mean by that very low or nearly negligible rates of restriction within a member countries and outside world it have a similar rate which is generally harder than that of within member countries restrictions.

So, the customs union while a member country joined their particular union must have calculated certain advantages of joining to their group. While joining the country will be expecting to expected expecting to you know derive lower cost of import and this actually

creations also occurs when domestic production in a member nation is replaced by lower cost of imports from another member nation. So, therefore, the country once it is within the customs union will get average and further trade is expected because of you know potential comparative advantage of the member countries.

And so, therefore this leads to increase welfare to the member as nations specialized in a comparative advantage set up. And this leads to increase welfare for non-members as well due to real income spill over which also increase imports for the rest of the world. So, let us explain the context to identify the losses or software scales or the gain or losses to the entities to the consumers, producers, producer surplus, consumer surplus as a part of theoretical you know explanation trade creation strategies of customs union.

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Now, here it goes like these where we try to understand in a partial equilibrium set up where demand and supply is given. Now given the demand and supply let us be the fact that the member for the country concerned let it be the country is a country A has not joined the country B or has not been the part of country B or not yet been with the customs union of

country B. Now yet I mean before integration P_A is equal to this is $1 + t$ times P_B because the within the customs union this tariffs is abolished or tariffs are negligible and that too to you know I mean if the countries not part of the customs union and for sure the you know the there is higher prices due to tariffs.

Now, what I wanted to say is the following. Now, here it goes like this ah. We say if the country A is joining country B and both the countries are part of the customs union. Now, due to a member due to the country A being member of for a custom union there is the tax is no more there. So, tariff is no more there. So, price will fall to P_B by the extent of taxes. Now, when price falls as you all know under the demand curve defined as these are all areas under the demand curve generally we defined as the all possible consumer suppress. And above the supply curve we define defined as the these are the area called you know producer suppress broadly I mean when price falls producer suppress is actually reduce to $A M$ ok.

Whereas now consumer suppress is actually increased by $M N T R$. So, consumer suppress is actually increase where producer suppress is negative component. So, my this here we are saying minus M for the producer plus m for the consumers. So, therefore, this is nullified. Now, the left out is $M T R M T R$. Now, out of it what is again negative here. The gross revenue earned by the government because government use to earn on you know revenue by charging tariff. Now, since tariff is not there this is negative first here now T is negative. Now, so what is left here only positive N is positive R is positive.

So, minus T is cancelled out T ; T cancelled out then $M M$ cancel out. So, what is left is N plus R . So, therefore, what we try to define in this probe set off is the following. So, the area here highlighted with area or emphasized N plot R is the net creation of of net welfare gain. This is called welfare gain. Gain net welfare gain to the member countries due to trade ok. So, therefore, this is called trade creation.

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Trade-Diverting Customs Unions

- **Trade diversion** occurs when lower-cost imports from non-members are replaced by higher cost imports from members.
 - By itself, trade diversion lowers welfare as it shifts resources away from comparative advantages.
 - Trade diverting customs union also results in trade creation. Change in welfare depends on relative magnitude of creation and diversion.

Now, coming to the argument for trade diversion: This occurs when lower cost imports from non-members are replaced by higher cost imports members just the reverse is compared to the discussion on trade creation trade diversion where trade creation we simply said that the member countries is a lower cost.

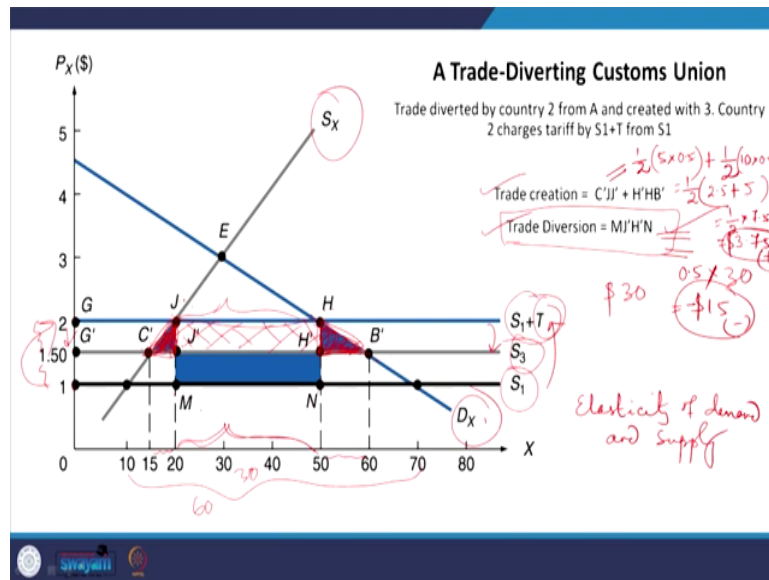
So, therefore, lower cost is creating further trade. Now if the member countries attached with higher cost of production, but by virtue we are part of the you know the customs union, we are not in a position to avoid our membership immediately. So, therefore, due to higher cost of production, we are bound to be attach again and those that will divert our trade. So, it it has negative you know consequences due to the customs union.

So, now also this this itself says that trade diversion lowers welfare as we as said just now. Since this shift resources actually away from their comparative advantage ok. Now trade diverting customs union also result in trade creation because of the fact that change in the welfare depends on the relative magnitude of trade creation diversion. So, the customs union result in trade creation because you know some diverting members are actually creating space for other members to tap the benefits. And therefore, when it is so other I mean it creates

space for trade creation somewhere it depends upon the relative you know magnitude of creation and diversion.

Let us examine with the help of a model diagrammatically.

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Now, here let us there be the case that there are 3 countries and the concern countries here we are referring to in the partiallic the equilibrium set of country 2.

Now, country 2 state away to it is very clearly given here that before you know before joining the group before joining the customs union the rate is actually I mean rate is actually a 2. Now, let us think about we have already discussed that ah. So, I mean let us talk about trade diverted by a country 2 from A from A and created with B, I mean there are 1 2 3 countries ah. Now, A B C accordingly you are mentioning country 2 charges tariff by S_1 plus T in order to divert their membership from country 1.

So, there are 1 2 3 countries. Now, here country 1 charges you know tariff of amount T are almost double the prices or the tariff is 100 percent that increases the you know tariff 2 to 2. This has resulted in result in higher prices and this actually diverts the trade. So, diversion of trade is explained by I mean M J prime H prime and N and because of the actually extent of tariff created or the restriction created. So, those amount actually now restricted. These are only import import as per the new I mean tariff. So, what we wanted to clarify here.

All you write S1 the import was staying to actually let it be 70 there are 60 units. Now after tariff of 100 percent, it restricted to only 10 to 50 that is 30s at the 100 percent restrictions are made due to. So, tariffs so how much it is. It is actually 30 units. So, what is the value exactly this is 30 times 1. So, it is actually 30 dollars as for; this diagram 30 dollars. Restriction probably we have explained in the next class I mean I mean in the next slide.

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The slide features a blue header with the title "Other Benefits on Members". Below the header, there is a white background with a bulleted list of three main points. The first point is "Trade and investment creation: cheaper import from member countries", which includes two sub-points: "Economies of scale" and "Larger market attracts investment". The second point is "Improve efficiency via competition from abroad". The third point is "Increase negotiation power in WTO". At the bottom of the slide, there is a dark blue footer containing a small logo on the left, the word "swayam" in the center, and a small number "9" on the right.

Other Benefits on Members

- Trade and investment creation: cheaper import from member countries
 - Economies of scale
 - Larger market attracts investment
- Improve efficiency via competition from abroad
- Increase negotiation power in WTO

Now, it is not here I will explain it correctly. So, it is 30 dollar is the trade diversion and this much is the revenue earned by the member country. I mean not member country I mean the

country 1 by charging higher tariff. Now what we wanted to mention here if the country 2 as concerned here country 2 right now, I mean the country same country is actually attaching the trade with a country 3 or attaching their group to be claimed as a customs union with country 3 due to certain you know reasons or so. The country the first country is actually deliberately imposing tariff on another country to divert their trade and rest I mean joining a group without any tariff ok.

Now, instead of imposing tariff the country prefers to join V 3. So, where the price actually falls down due to non-tariff regime reduce to 1.5 ah. Now price is 1.5 due to no tariff at all. Now let us examine very clearly from here had it I mean basically at 2 they have you know clear trade diversion ah. I mean at 2 these portion, I mean these triangle 2 triangles now they are adding a extra value. I mean under these diagram this is as we already explained C prime J H and B C prime J H and B prime or the area trade created trade created.

So, this is basically I mean total trapezium areas C prime J H and B prime; out of which see if the country after joining the customs union not earning any revenue. The potential are revenue the country used to earn is the area the revenue used to earn is the area J M or M J H N. Now we are actually saying out of the total gain that is C J H B prime. Out of these trapezium areas C J H B prime J prime J H and H prime once again I am saying or J prime H prime H is the rectangular area where the country is not earning any revenue to I mean tariff revenue.

So, country is actually giving off this tariff revenue. This is actually diverting their trade I mean diverting their revenue diverting their benefits ah. I mean the country could have earned I mean after joining the custom union it created the trade by C prime J H B B H or B prime. Out of that and basically these area this is the area out of that the blank portion as highlighted by the rectangular area J I mean J prime J H J prime J H and H; H prime is the area government is actually forgiving or diverting their revenue.

So, this is a minus component here. So, the net trade creation is actually C prime J prime that is the triangle area. This is the one triangular and also another triangle area is of this one. This is called net you know trade creation made by the country due to their joining with a customs union. Now, so let us calculate the value based on this figures how much the country has given up and how much the country as actually added due to you know joining the customs union.

Now, the trade diversion is by the area as I said in this connection M J H and N sorry the net area I mean out of that the net losses is M J prime H prime and N. So, is the net loss and is called trade diversion and trade creation net trade creation is C prime J H as we have already highlighted in 2 triangle. Let us calculate it. What is this all about? How much is the net trade diversion? Net trade diversion total trade diversion is M J H and N and you guys might be expecting numeric question on it will give such 2 equations simply you know 2 1 demand equation and supply equation. From there you are supposed to plot it in a diagram and we will also level or or give certain you know bench mark or level of oh sorry level of you know tariff rates.

We are supposed to find out trade diversion area and trade creation area. So, this is basically how much is this from 1 to 1.5 it is only 0.5. So, 0.5 times this is this is area 30 30. So, basically 15 dollar is; the is the loss due to trade diversion. Whereas, trade creation is of amount here this is equal to half of half of what is that half of you know this is triangular area 15 to 20. There is 5 into from the vertical distance is 0.5 to 2 0.5 to 2 is of 0.5 1.5 to 2 it is of 0.5 plus half of another triangle this ah. I mean this distance is of 50 to 60 is of 10 into vertical distance is of 0.5.

So, half is common. What we have try to understand here. This is you know basically 0.5 of 0.5 of 5 is equal to 2.5 plus 10 of 0.5 is of 5. So, basically 7 point this is actually of half of 7.5 which is equal to 3.75 dollar. So, this is plus, but this is minus ok. Now, given this context we have derived fact that trade diversion amount is higher, then that of the trade creation amount. Trade creation is of value with a positive sign of 3.75 is against trade creation I mean trade you know diversion trade diversion is of minus of 15 US dollar.

So, the therefore, what I mean trade creation trade diversion initially; we say it it diverted trade to another country by charging tariff and now the country decided to join with another country so the price falls. Now, we are trying to find out the net impact net impact or the revenue or the we are trying to find out trade creation and trade diversion aspects. It certainly depends on depends on the magnitude of change I mean here we have marked equal changes between these 2 distance. So, the magnitude of change depends upon the elasticity of demand and supply because this triangle area or the rectangle area actually dependent on the responsiveness of both of the area.

Now, this is dependent upon their responsiveness and responding are explained by explained by elasticity of demand as well as supply. Now, I am just give you a context if it is I mean demand is if it is elastic then what is going to happen if supply is elastic then what is going to happen accordingly you know I mean tariff we already discussed earlier the time of discussing you know tariff rates. So, let us come back to the discussion on the benefits or other benefits derived by the you know member countries while trade creation as we already said it has economy scaling linkages it will attract for the investment due to larger markets improve efficiency via you know competition from abroad and also increase the negotiation power in WTO because there where bigger groups.

So, member countries will vote for their own favor and ah. So, it is very important.

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Other Costs on Members

- Trade and investment diversion: change from cheapest sources outside the group to more expensive source within the group
- Tax revenue forgone
- Loss of autonomy in trade policy
- Unequal distribution of benefits among members
- Dependence on particular export markets
- Complex trade relationship and burden on customs processes

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So, far as trade diversion is concerned it diverts you know investment and trade and and since you know cheapest sources are actually cut off due to joining another country or the member country. Similarly it for you tax revenue as we just mentioned and loss of autonomy power

because they have already in the group and the whatever the group decides they are supposed to follow. So, therefore, it reduces you know autonomy power.

Ah there might be possible to unequal distribution of benefits among member countries depending upon the elasticity of demand and supply. They have and dependence on a particular markets is important. It had it you know rate is complex trade relationship and burden on the customs processes.

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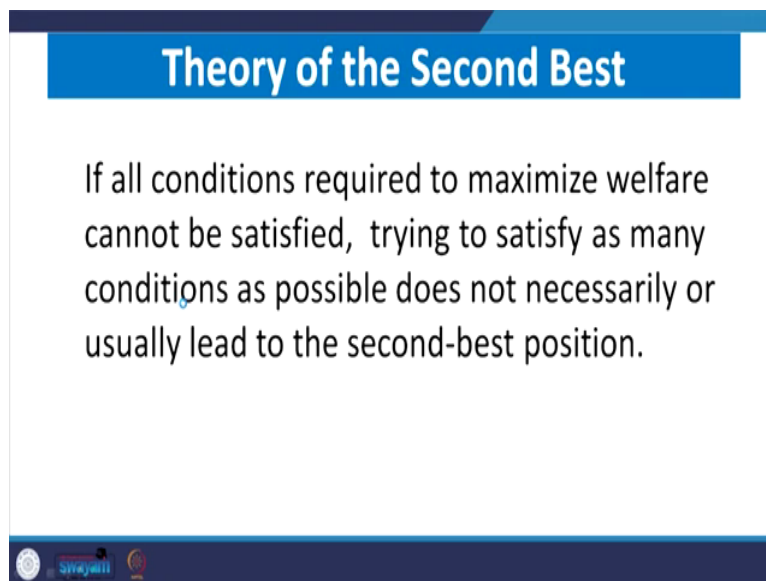
The slide is titled "Benefits and Costs on Non-Members" in a blue header. It lists the following:

- Benefits**
 - Increased export opportunities, through higher demand
 - Prospect of freer global trade
 - Testing ground for global trade disciplines
- Costs**
 - Trade and investment diversion
 - Potential frictions between trade blocks
 - Confused and complex trade relations
 - Less commitment to WTO

At the bottom left, there are logos for "Swayam" and "MOE". At the bottom right, the number "11" is displayed.




And what are the benefits and costs to the non-members increase export opportunities because the larger group and the rates are usually expected to be lower because of specialization. So, it reaches high demand prospects for higher global trade and testing round for global trade disciplines also there are some cost attach to it trade and investment diversion are there. Potential frictions between trade blocks it creates confused and complex you know trade relations less commitment to WTO because you know they are not the member I mean not member of the group they do not have the bargaining power.

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Theory of the Second Best

If all conditions required to maximize welfare cannot be satisfied, trying to satisfy as many conditions as possible does not necessarily or usually lead to the second-best position.

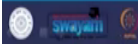
Now, what is left for discussion here as for our target for this lecture is of theory of second based; it says that if all condition requires to maximize welfare. I mean here we already discussed certain trade diversion and trade creation strategies to increase welfare. So, if it is not satisfied to or this total welfare is not being you know attend or the maximum is not attend we will try our best to have you know a second best options and that is that is you know is very essential for the country that the. What the first base then when all markets in profession are removed. The economy will be in a pair to optimality situation

Second best when some of the market you know in professions are removed through may be through union or through you know through you know less restrictions. The social welfare of the economy may or may not be improved by at least it will be close to the optimality.

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The Second Best Theory

- First Best: when all market imperfections are removed, the economy will be in a Pareto optimality situation.
- Second Best: when only some of the market imperfections are removed, the social welfare of the economy may or may not be improved.
- Example: The alcohol market is suffering from monopoly and externality problems. Allowing competition removes the inefficiency from monopoly power but increases the external costs.
- FTAs may face the second best problem.



For example alcohol market is suffering from monopoly ah. I mean is suffers from monopoly then externality problems. Allowing competition which removes the inefficiency from the monopoly power and increases the external costs.

FTMFA is the second best problem treated areas ah. So, because customs union is different and of FTA so, there will be some problems. So, now, the so all the other static welfare effects due to custom union; it was once believed that any moment to a free trade would actually increase welfare.

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The Theory of the Second Best and Other Static Welfare Effects of Customs Unions

- It was once believed that any movement toward freer trade would increase welfare, so formation of a customs union would necessarily result in increased welfare for members and non-members.
- In 1950, Viner showed that formation of a customs union *could increase or reduce welfare*, depending on the circumstances under which it takes place.

So, formation of custom union would actually necessarily result in better welfare for the members as well as non-members as we already discussed. Now, in the works of Jacob Viner that the custom union could increase or actually reduce welfare depending upon the circumstances where it takes place depending upon the strategy expansion the responsiveness this was the work mentioned by Jacob Viner in 1950. Similarly, these are the you know you know cases where this leads to increase welfare we have already discussed.

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Conditions More Likely to Lead to Increased Welfare

1. Higher pre-union trade barriers of member nations.
2. Lower customs union's trade barriers with non-members.
3. Greater number of nations forming customs union, and the larger their size.
4. More competitive rather than complementary economies of member nations.
5. Closer geographical proximity of member nations.

And let me point out a few higher pre-union trade barriers of the members lower customs union trade barriers with non-members greater number of nations forming custom union and largest their size, more competitive rather than complementary economies of member nations closer geographical proximity to the member nations etcetera are very important.

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Other Static Effects of Customs Unions

1. Administration savings from elimination of customs officers, border patrols, and others.
2. Reduction in demand for imports from and supply of exports to rest of the world will likely lead to improvement in collective terms of trade of member nations.
3. By acting as a single unit, customs union will likely have more bargaining power than members separately.

So, similarly some other static effects of custom union are like administration savings from elimination of customs officers, border patrols and others as I already mentioned customs. So, inspectors are not required. So, this will also save ah. So, reduction in demand for imports from and supply from an end supply of exports of rest of the world will likely to lead to improvement in collective terms of trade of member nations.

So, collective terms of trades are expected to be improved because of their collective bargaining power now the country after formation of group they defined as a bigger group is a larger country. So, the larger country actually define a better formal by acting as a single unit customs union will likely have more bargaining power than member nation separately as I mentioned.

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Dynamic Benefits from Customs Unions

1. *Increased competition*, leading to greater efficiencies and technological improvements.
2. *Economies of scale* from the enlarged market.
3. *Stimulus of investment* to take advantage of enlarged market, and to meet increased competition.
4. *Better utilization of community resources* as labor and capital move freely (*assumes common market*).

So, once again these are the way the custom union derived dynamic benefits in terms of competition in terms of economic scale, stimulus of investment, better utilization of community are there.

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India's Current Engagements in RTAs

1. Association of South East Asian Nations (ASEAN) and India Free Trade Agreement (FTA) negotiations
2. India-Sri Lanka Comprehensive Economic Partnership Agreement (CEPA) negotiations
3. India-Thailand Comprehensive Economic Cooperation Agreement (CECA) negotiations
4. Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Free Trade Agreement (FTA) negotiations

Now, the last you know aspect of this particular lecture is on understanding. India's present position of various forms of RTS where India's times will also discuss this in our next lecture on WTO will also decide where India has been attached.

Ah so, broadly there are 19 19 actually you know agreements India is attached with. So, I think like famous attachment I like Asian and like India is part of the negotiation to be member, but not create a full member CECPA Srilanka, India's, Srilanka Comprehensive Economic Partnership Agreement CECPA similarly with Thailand.

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5. India-Gulf Cooperation Council (GCC) Free Trade Agreement (FTA) negotiations
6. India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA) negotiations
7. India-SACU Preferential Trade Agreement (PTA) negotiations
8. Second Review of India-Singapore Comprehensive Economic Cooperation Agreement
9. Expansion of India-Chile Preferential Trade Agreement (PTA)

Similarly other you know groups will explore in in detail in our WTO you know lecture. So, I think I did not spend time over on this and broadly we have discussed the trade creation and trade diversion start you know effects of customs union.

So, largely it is beneficial to be a member in the customs union, but however, it attach with limitations and depending upon their you know elasticity of demand and supply. So, I think it is pretty clear to understand these arguments. We will clarify our discussion with regarding WTO in the next class. I think I should stop here.

Thank you.