

Strategic Trade and protectionism - Theories and Empirics
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Lecture – 40
Strategic Trade: Summary & Conclusion

Welcome friends, once again to the NPTEL module on Strategic Trade and protectionism Theories and Empirics. We are at the very last lecture of this particular course where, we have been you know trying our best to give a complete summary of Strategic Trade and protectionism over last all you know 39 lectures.

So, without delaying further, let me quickly start with the complete you know discussion we made as part of our concluding session, so, let us start with here. So, in the very beginning of the lecture, in the week number 1, we started with discussing various latest evidences of you know international trade; particularly highlighting the strategic issues across the member countries.

So thereby you know, member countries used to take number of protectionism measures which may not be actually right or maybe right, depending upon the context we have been discussing. So whether right or left, it is very trivial to understand. So therefore, we are supposed to look at the exact theories and certain empirical evidences to it.

So in short, what we have looked at why theories or why facts as an anecdote to the understanding of you know strategic trade. So we largely try tried our best from the theories in some of the you know lectures on small country versus large country discussions, specially, for strategic partnership or related to protectionism.

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Week1: Why Theories and Facts?

- Big country versus small country debates
 - Strategic Trade
 - Trade protectionism
- Intra-Industry Trade versus Inter-Industry Trade
- Nominal protection versus effective protection
- Tariff versus Non-Tariff measures
- Trade Blocks versus Trade Blocs
- Trade Creation versus Trade Diversion
- Immiserizing Growth →

Then we also moved to the understanding of very you know important aspect called intra-industry versus intra-industry trade inter-industry trade, which is in connection with you know, connection with the present day's nitty-gritties of trade where many products are slightly differentiated. So, therefore, you know we are living in a monopolistically competitive market, so which has raised to the possibility of intra versus inter-industry trade and, largely we discussed it.

Similarly, we discussed as part of protectionism policy, we discussed various forms of protections including nominal and effective rates. So, we will we have already made you know they exact discussion, I will unfold the exact week when we discussed those.

Then we also talked about tariff versus non-tariff measures, then we discussed in the very latest you know week on trade blocs versus trade blocks as part of our you know, last week session. And within that session also we emphasized trade creation versus trade diversion.

And the another theory by Prof. Jagdish Bhagwati on immiserizing growth rate which is, part of a strategy for the developing countries to grow, for protecting the terms of trade also been discussed.

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The slide is titled "Lecture 3: India's International Trade: Latest Facts and Figures". It contains a bulleted list of topics to be discussed in the lecture. The topics are:

- India's External Sector
- BoP: CAD as of GDP
- Crude oil prices
- Top and bottom ten export and import destination
- Composition of export and import
- Top and bottom ten export and import commodities and services
- Global comparison among top 10 economies
- Top remittances
- FDI and portfolio investment
- Forex reserves

The slide also features logos for Swajati and a small number '3' in the bottom right corner.

So, let us start with the first and two lectures, first and second lectures are primarily on understanding facts and figures or the recent evidences, certain cases. Third lecture onwards, we emphasize quite holistically on the you know, international trade and its figures. We talked about current account deficit as percentage of GDP, so crude oil prices and its implications for developed and developing countries.

We also emphasized top 10 and bottom 10 exports and imports destination countries their composition of exports and imports. In addition to that, we emphasize different types of top 10 commodities and services. Then, we also explained the top economies and with the

comparison with India, top remittances countries and FDI and portfolio investment forex reserves. Those discussion already made in lecture number 3.

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The slide features a blue header with the title "Lecture 4: Facts on Trade Policies and Facilitations". Below the header, there are two columns of bullet points. The left column includes: "Why Facilitation?", "East Asian Crisis to Miracle", "Plausible explanations of Miracle to Burst", "Most problematic factors of importing in India", "Comparing India, Asian and OECD countries in restriction to imports", and "India's Trade Policies". The right column includes: "How to export", "Processing an export order", "Documentation and submission of documents to bank", "Latest foreign trade policy (FTP 2015-20)", and "Trade agreement in force, in accession, in negotiation". At the bottom left, there are logos for "swayam" and "MOE".

- Why Facilitation?
- East Asian Crisis to Miracle
- Plausible explanations of Miracle to Burst
- Most problematic factors of importing in India
- Comparing India, Asian and OECD countries in restriction to imports
- India's Trade Policies
- How to export
- Processing an export order
- Documentation and submission of documents to bank
- Latest foreign trade policy (FTP 2015-20)
- Trade agreement in force, in accession, in negotiation

Now, specially lecture number 3 4, we try to identify from the beginning of the week on what are the facts on trade policies or facilitations in different countries. We unfold the discussion of the East Asian crisis to East Asian miracle of that particularly the 10 years journey and the miracle how those countries actually a change the paradigm; and you know, why facilitation is largely required? Some of the theories discussed in the next already been discussed in some of the you know lectures.

So, we discuss how those miracles are also having you know, attached with number of possibility of burst. So, most problematic factors, importing India also we emphasized; we

talked about Asian you know, and OECD and its comparison to India specially, related to import restrictions.

There are various restriction indicator we mentioned. So, we have also you know collected the information on India's trade policy especially the latest foreign trade policy FTP 2015. There is the latest document you can get it from the you know, sources I mentioned during that week lecture number 4, of week number 1.

Then, we emphasize what are the documents required to export? What are the documents required to imports? What are the processing export orders? Trade related in trade agreements or RTA's in force, in accession and negotiation are also discussed.

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**Lecture 5: Introduction to Trade Theories:
What, Why and for Whom?**

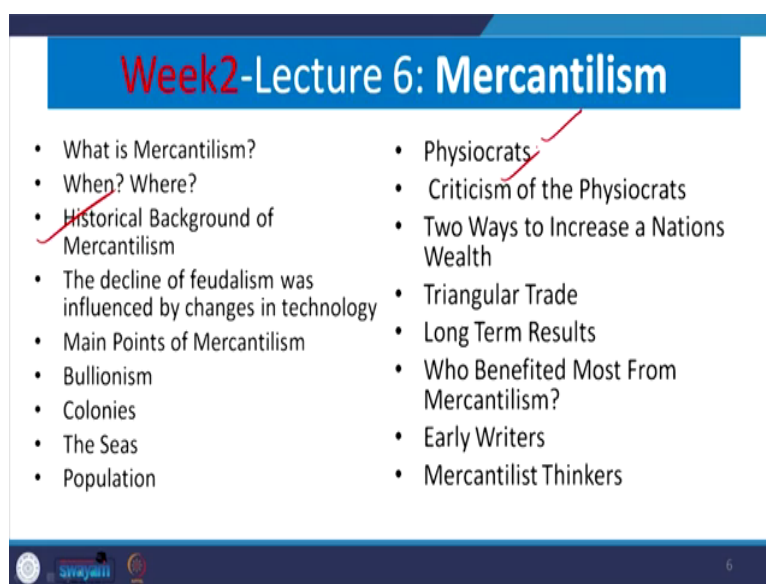
- Fallacies of International Trade
- Why Economists Are Worried About International Trade
- Jack of All trade - A Myth
- Recent theories and the factors
- Evidences to believe theories
- A Caveat of Trade Effects
- Rationale...From Data
- Free Trade . . . Not Good Always
- Why is trade good?
- Social and Political Questions
- A short history of protectionism
- Birth of WTO
- Is free trade always the answer?

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In lecture number 5 we started emphasizing on the pure theory; trade theories I mean, why trade theories are required? So in trade theories we emphasize basically on fallacies of international trade. There are also fallacies you know, we have certain myths and beliefs.


We emphasized recent theories and factors relating to trade based on the theory. So, evidences also were there to prove the theory whether the proved theories are actually correct or not. So, you know we checked with the rationality of the data, then what are the social and political questions to the theory? We also answered is free trade always the case and is it good is trade good through the theories.

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Week2-Lecture 6: Mercantilism

- What is Mercantilism?
- When? Where?
- Historical Background of Mercantilism
- The decline of feudalism was influenced by changes in technology
- Main Points of Mercantilism
- Bullionism
- Colonies
- The Seas
- Population
- Physiocrats ✓
- Criticism of the Physiocrats
- Two Ways to Increase a Nations Wealth
- Triangular Trade
- Long Term Results
- Who Benefited Most From Mercantilism?
- Early Writers
- Mercantilist Thinkers



So, some of the you know fallacies you can follow, I mean all the fallacies can be followed from the concerned lecture. In week number 2 onwards, we emphasized the exact theory the founding you know theoretical or the theoretical base of classical theory is none other than

mercantilism. So we discussed that mercantilism largely believe on you know exports not import I mean, not imports.

So, we have checked their historical you know background. Then when during what time also the decline of feudalism that led to the change of mercantilism; then also, the break of mercantilism was large due to the change in technology.

Then we emphasize the main points of mercantilism like you know, they believe in bullionism, colonies and their role in mercantilism. Then the seas and the restrict the seas, roots to the and they also talked about population and their changes.

So, there are you know the thinkers called physiocrats during that period the criticism of physiocrats are also emphasized. Then two ways also, we discussed two ways to increase nations wealth. Triangular trade between the you know different countries are emphasized.


How you know, triangular form actually was one of the most important aspects of you know mercantilism. Then also, we talk you know you know discuss some early writers; then mercantilism thinker like physiocrats. So, to Marxman like economist were emphasized.

From lecture 7 onwards, we arrived into the core classical theory by you know the father of nation called Adam Smith. So, as from the picture we also give the same picture during that lecture where we discussed that it is the invisible hand which is you know responsible for correct in the market.

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Lecture 7: From Mercantalism to Adam Smith

- Adam Smith (1723-1790)
- Adam Smith's Attack on Mercantilism
- Basic Capitalist Principles
- The "Invisible Hand" of the market
- **Laissez faire** ["Leave things alone."]
 - What is the basis for trade?
 - What are gains from trade?
 - What is the pattern of trade?
- Trade Based on Absolute Advantage: Adam Smith



	U.S.	India
Wheat (bushels/labor hour)	6	1
Cloth (yards/labor hour)	4	5

So, therefore, we need not you know, worry. So, this is the theory from 1723 to twenty third to 1790. So, they attacked Adam Smith theory attacked on the mercantilism on various grounds, we can follow it from the lecture number 7. So, then they strongly believe in laissez-faire; basically on what is the basis for trade? What are the gains from trade? In how I mean, how the trade takes place basically what is the pattern patterns of trade?

So, based largely Adam Smith theory is based on absolute cost advantage. We will also gave this example to verify between US and India and here we are mentioning labor productivity and accordingly you can check the answer for it.

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Lecture 8: Theory of Comparative Cost Advantage

- Law of Comparative Advantage
- Opportunity Costs
- Production Possibilities Frontier (PPF)
- The Basis for and the Gains from Trade under Constant Costs
- Range of Trade ($4C < 6W < 12C$)
- complete specialization
- Revealed Comparative Advantage
 - $RCA_{ij} = (X_{ij}/X_{wj}) / (X_i/X_w)$
- Some facts on RCA
- India vrs China - RCA

	U.S.	India
Wheat (bushels/labor hour)	6	1
Cloth (yards/labor hour)	4	2

Similarly, in lecture number 8 as part of the week number 2, we emphasized comparative cost advantage by David Ricardo. So, we talked about opportunity cost in detail, also emphasized production possibility frontier. So, we derived the diagram and placed the differences.

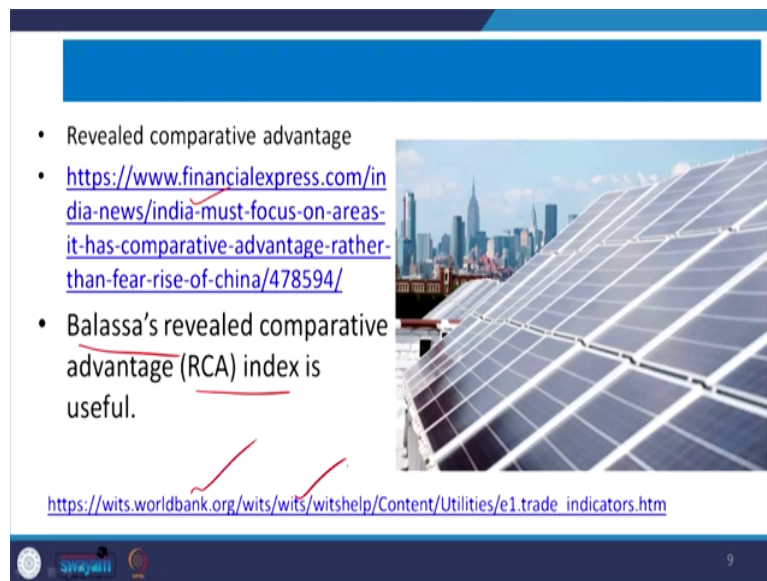
From the example, you can verify the range of trade. Once again, from the lecture I have categorically mentioned there will be you know some questions expected we also. You know, exam those who are willing to appear for the exam and you know there will be no question of committing errors.

Now, regarding the discussion of specialization complete versus incomplete specialization, again I discussed that this is the theory based on complete specialization and based on the assumptions. Later on, we also talked about revealed comparative advantage, is not just comparative advantage by on its own as compared to the world for a particular product; its

exposed to the world exports divided by the total exports of the country divided by total exports of the world. We discussed already.

So, basically this is the ratio of exports and this is ratio of exports of the particular product.

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- Revealed comparative advantage
- <https://www.financialexpress.com/india-news/india-must-focus-on-areas-it-has-comparative-advantage-rather-than-fear-rise-of-china/478594/>
- Balassa's revealed comparative advantage (RCA) index is useful.

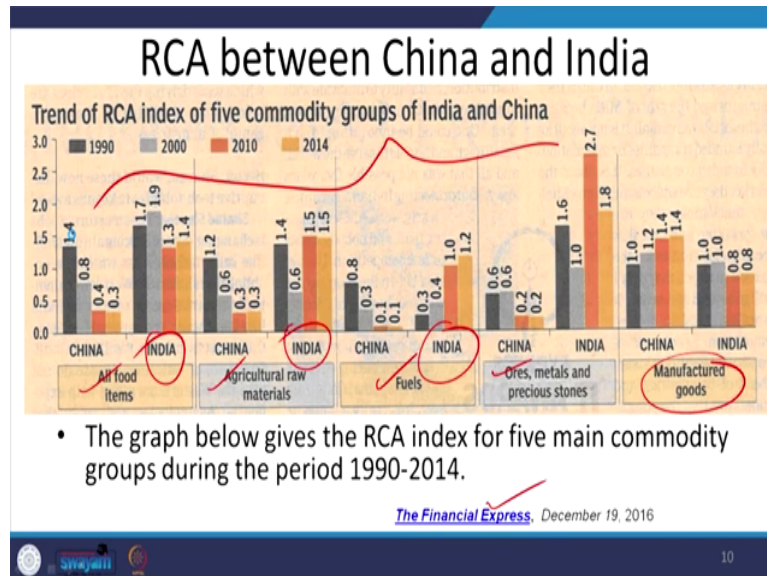
https://wits.worldbank.org/wits/wits/witshelp/Content/Utilities/e1.trade_indicators.htm

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So, we also cited the number of examples for further revealed comparative advantage between India and China, where we said that we need not to worry in a China. India has a large number of revealed comparative advantage and we also cited one case published in the recent paper you know 2019 newspaper in financial express on India must; given India must focus on areas it has comparative advantage rather than fear of rise of China.

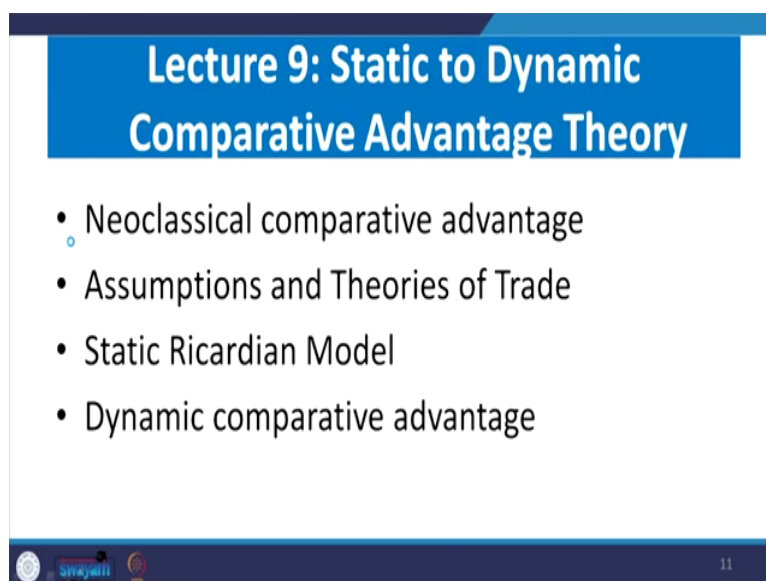
So, at last we talked about RCA based index. You can also follow from world's wits database to you know, check the differences in different indicators those ways to do certain survey on it.

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Now, we as I just said in the Financial Express newspaper so now, this is India's context in everywhere; in all segment fuel, agriculture of you know, ores, metals except manufacturing. Rest cases India has you know, advantage in revealed comparative index approach as compared to China. So therefore, India you know has huge potentialities for its growth. And these are the you know figures given from 1992 2014.

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Lecture 9: Static to Dynamic Comparative Advantage Theory

- Neoclassical comparative advantage
- Assumptions and Theories of Trade
- Static Ricardian Model
- Dynamic comparative advantage

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On Lecture number 9, we discussed static to dynamic you know, comparative advantage theory where we largely attached number of neoclassical comparative advantage theory and their assumptions, the static demand and supply diagram to explain it. Also attach you know, various changes in the static part with the change in the assumptions.

Now, in the follow of lectures like lecture number 10, there are certain you know empirical testings of comparative advantage made, specially we analyze the catching of economies model with Asian countries. There were one example taken from one of the paper which captured domestic trade balance and international competitiveness.

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Lecture 10: Empirical Testing of Comparative Advantage Theory


- Some More Exercise
- Analyzing comparative advantage of the catching-up economies
 - ASEAN (Association of Southeast Asian Nations) countries
 - Leading exports: two points of view
 - domestic trade-balance
 - international competitiveness
 - Two indicators of comparative advantage: "Products Mapping"
- Revealed Symmetric Comparative Advantage (RSCA) by Dalum *et al.* (1998) and Laursen (1998)
- Trade Balance Index (TBI) (Lafay, 1992)

$$RCA_{ij} = (x_{ij} / x_{in}) / (x_{rj} / x_{rn})$$

$(0 \leq RCA_{ij} \leq \infty)$

$$RSCA_{ij} = (RCA_{ij} - 1) / (RCA_{ij} + 1)$$

$-1 \leq RSCA_{ij} \leq 1$

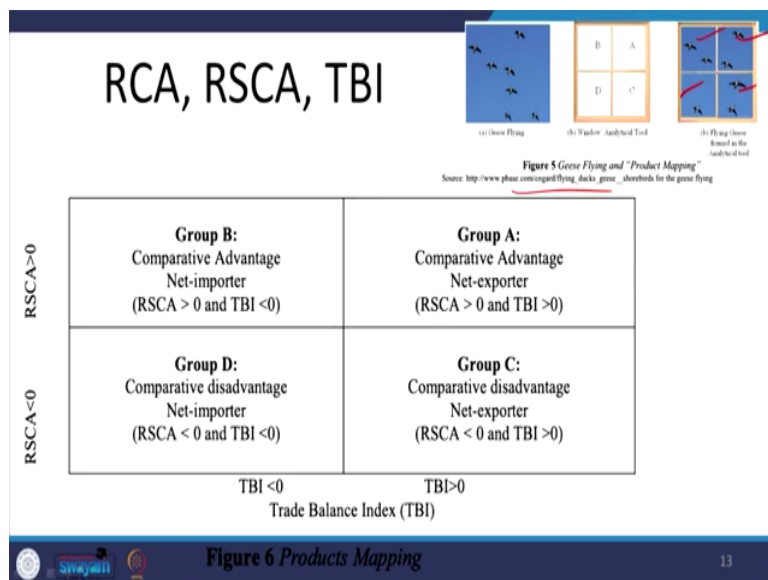
$$TBI_{ij} = (x_{ij} - m_{ij}) / (x_{ij} + m_{ij})$$


And also on products mapping we will explain shortly, this is the equation we discussed just before revealed you know comparative advantage. And there are another approach given by revealed systematic comparative advantage we already discussed by you know Dalum et al in 1998 and Laursen 1998 paper.

Now, this is the equation you just go and follow. Its because of positive of time and we were concluding the discussions so therefore, I am not emphasizing. And last one to be emphasize by to we understand that comparative advantage; trade balance index was also suggested by Lafay 1992.

We also discussed that with this equation and we can also check their extreme point, the range of each of the points can also be checked from the lecture number 8 10.

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Now after that, we try to you know refer an article published in journal called Geese Flying, "Product Mapping" model where we discussed TBI index is as we have said RSCA and accordingly we divided four parts. These are the four parts we discussed and please refer to lecture number you know, accordingly.

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**Week3-Lecture11: Neoclassical Trade Theory-
Standard Trade Model**

- The Production Frontier with Increasing Costs
- community indifference curve (CIC)
- specialization is *incomplete*

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Now, in the context of neoclassical trade theory and standard trade model, we you know, started discussing in week number 3rd where we talked about community indifference curve. And from these onwards we said that specialization is incomplete because of the realistic assumptions taken. And all each country are not just come producing entire products of the same variety and since the principle is based on increasing cost function.

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Lecture 12: Heckscher-Ohlin Theory of Trade

- Factor Intensity ✓
- Factor Abundance ✓
 - In terms of *physical units* ✓
 - In terms of *relative factor prices* ✓
- No Factor Intensity Reversal
- H-O theorem
- The factor price equalization theorem
- H-O-S Theory (return to scarce factors)
- The Stolper-Samuelson Theorem

$$\frac{\bar{K}^*}{\bar{L}^*} > \frac{\bar{K}}{\bar{L}}$$
$$\frac{K_Y}{L_Y} > \frac{K_X}{L_X}$$



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And so, in the lecture number 12 we discussed about Heckscher-Ohlin theory of trade we have we have emphasized abundance versus intensity. You can follow it from the equation abundance by physical and relative factors. Then, Stolper-Samuelson theory through H-O-S theory specially return returns to you know scarce factor were emphasized.


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Lecture 13: H-O-S MODEL IN TRADE AND INCOME DISTRIBUTION

- Problems with the Ricardian Model
 - *Strong Specialization/Discontinuous Adjustment*
 - *Indeterminacy of Final Terms of Trade*
 - *No Income Distribution Effects*
 - *Problems with the Labor Theory of Value*
- The Stolper-Samuelson Theorem
- All Factors Fixed:
The Cairnes-Haberler Model
- Some factors fixed, others mobile:
The Ricardo-Viner Model

$$\hat{r} > \hat{P}_S > \hat{P}_B = 0 > \hat{w};$$

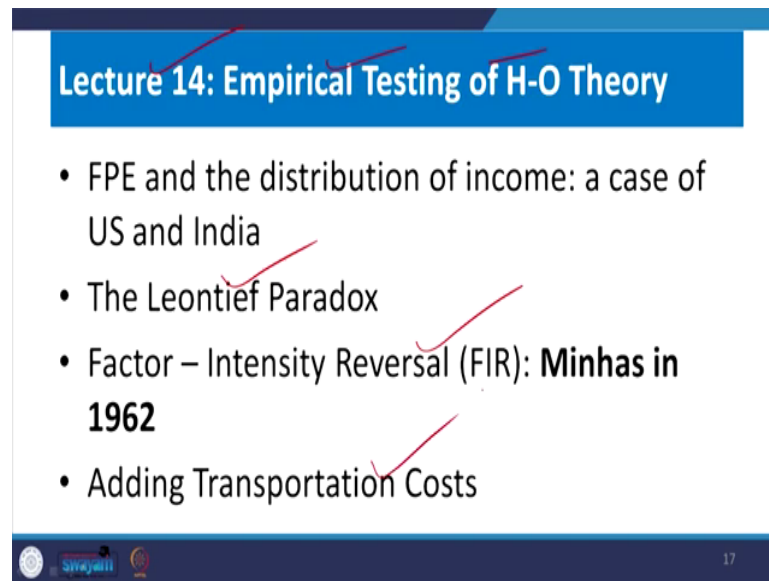
Cairnes-Haberler: very short run;
Ricardo-Viner: medium run; and
HOS: long run.



How trade actually facilitates scarce factor, we also discussed factor intensity reversal emphasized by Prof. Minhas, Indian economist, which is quite you know, criticizing the H-O-S model. And we discussed the income distribution approach by citing various theories called you know H-O-S theory Heckscher-Ohlin-Samuelson theory.

Then we discussed you know factors. If a factor fixed by Haberler and Cairnes, approach Ricardo and Viner, approach related to some factors fixed depend on due to short period and long period. So, you just go and check how the short period and long period relevance of H-O-S theory were important.

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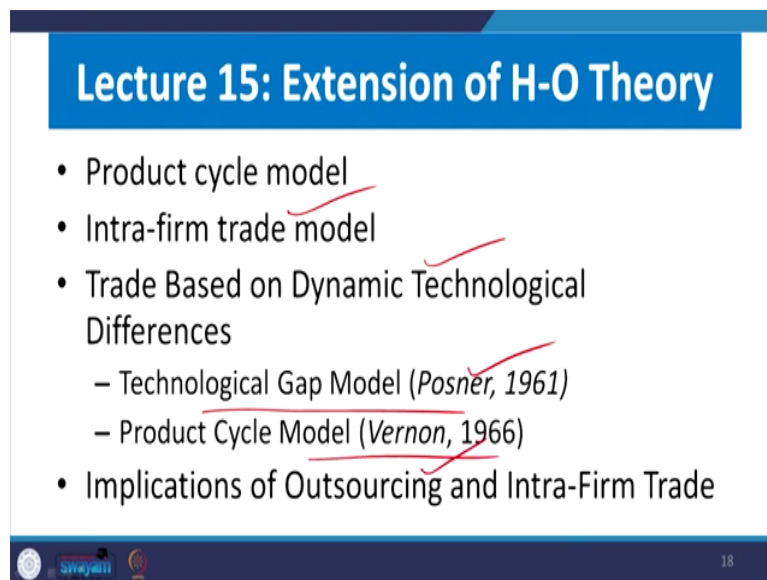
Lecture 14: Empirical Testing of H-O Theory

- FPE and the distribution of income: a case of US and India
- The Leontief Paradox
- Factor – Intensity Reversal (FIR): **Minhas in 1962**
- Adding Transportation Costs

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So, I have already just said we emphasize that empirical testing of H-O theory. We talked about Leontief Paradox, we talked about factor intensity reversal, we also emphasized through transportation cost and their distribution.

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Lecture 15: Extension of H-O Theory

- Product cycle model
- Intra-firm trade model
- Trade Based on Dynamic Technological Differences
 - Technological Gap Model (*Posner, 1961*)
 - Product Cycle Model (*Vernon, 1966*)
- Implications of Outsourcing and Intra-Firm Trade

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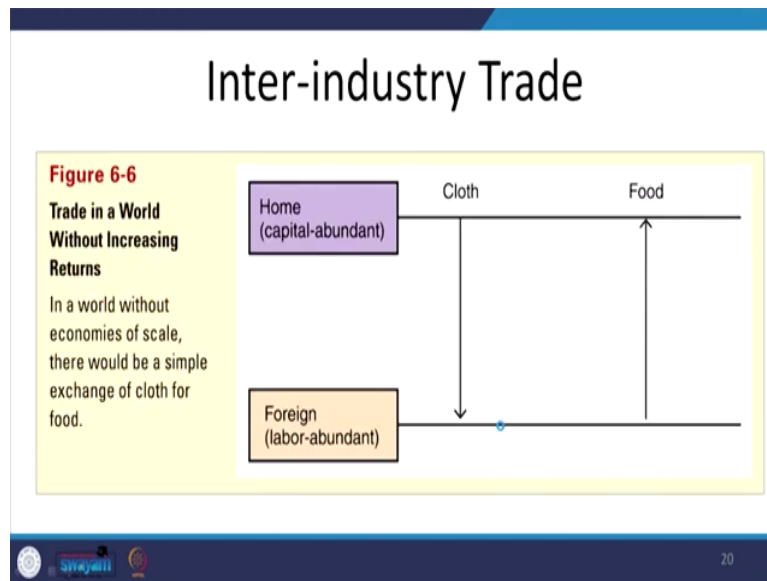
Extension of H-O theory in was emphasized in lecture number 15, where we discussed product cycle model, intra-firm trade, dynamic technological differences through you know their technological gap model emphasizing Posner 1961 and product cycle model by Vernon in 1966. So similarly, we also emphasized you know outsourcing and intra industry trade.

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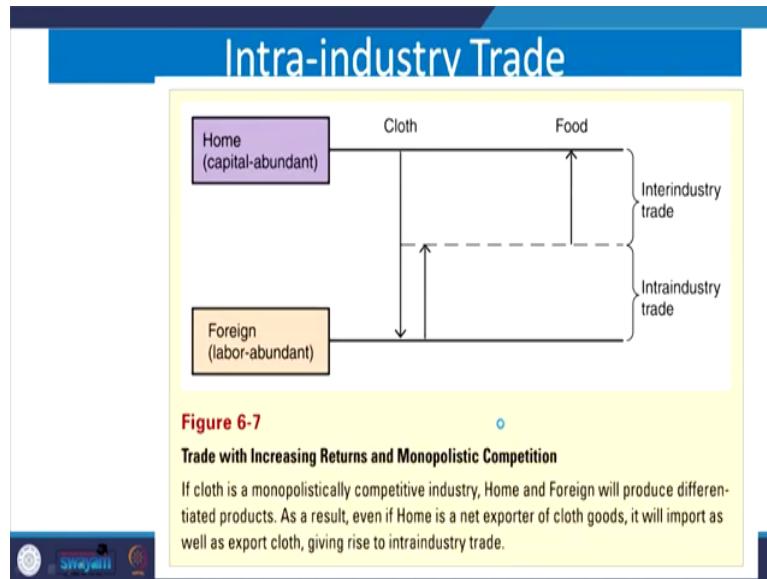
Week4-Lecture16: Imperfect Competition and Trade

- Types of Economies of Scale
 - External economies of scale
 - Internal economies of scale
- Competition and Monopoly
- Monopolistic competition ◦

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On lecture number 16, week number 4, we talked about types of economies of scale, then competition and monopoly, monopolistically competitive market where we emphasize you know inter industry versus Intra-industry trade you can go and refer accordingly.

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Lecture17: Monopolistic Competition and Trade

- Characteristics of IIT
- Gains from IIT
- Models with Heterogeneous Firms
 - Extension of the “Krugman model”
 - Melitz (2003, Econometrica) model

A monopolistic competition and trade was emphasized in lecture number 17, specially with extension of you know Krugman model.

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Lecture18: Intra-industry versus Inter-Industry Trade

- IIT and India
- Types of IIT
 - HIIT ✓
 - VIIT ✓
- Approaches to Measure
 - Bagchi et al (2014) used the unit value dispersion criterion following Greenaway, Hine and Milner (GHM) approach at HS-6-digit level
 - This GHM approach disentangles total IIT into horizontal and vertical,
 - high vertical or h-VIIT and inferior, as, low vertical or l-VIIT products
- India's IIT and Rest of the World ✓

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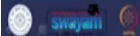
We talked at large where we derived in lecture number 18 for Intra-industry versus Inter-industry trade where we differentiated horizontal versus vertical Inter-industry trade emphasized by Bagchi in his paper and it is famously called GHM approach tested at HS-6-digit level.

So, they also emphasized you know h VIIT and l-VIIT stands for high vertical and low vertical you know vertical Intra-industry trade. So, you and there are number of cases given as compared to IIT and in international trade and rest of the world cases.

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Lecture19 & 20: Measuring Intra-Industry Trade - I

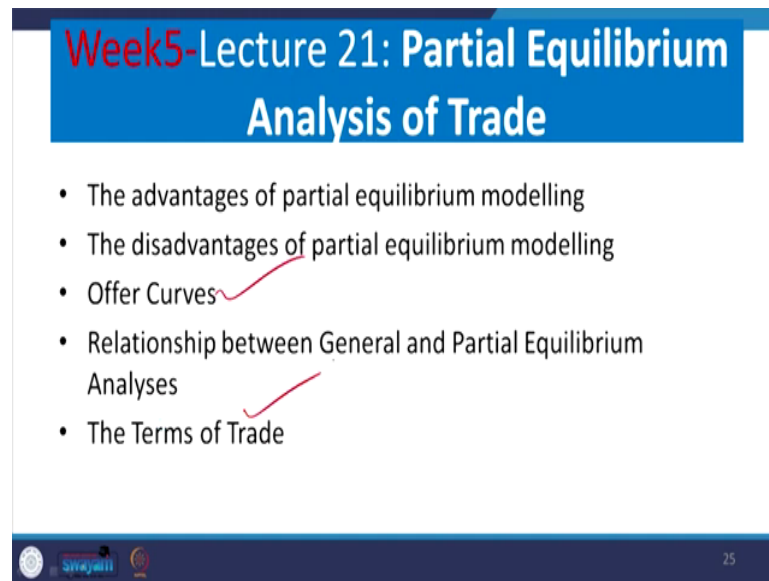
- Grubel and Lloyd (1975)
- Bergstrand (1983) proposed an index
- Grubel-Lloyd Uncorrected (GLU)
- Grubel-Lloyd Corrected (GLC)

$$GL_{AB}^i = 1 - \frac{|X_{AB}^i - M_{AB}^i|}{X_{AB}^i + M_{AB}^i}$$
$$BG_{AB} = 1 - \frac{|\tilde{X}_{AB}^i - X_{BA}^i|}{\tilde{X}_{AB}^i + X_{BA}^i}$$
$$GLU = \frac{\sum_i (X_{ij} + M_{ij}) - \sum_i |X_{ij} - M_{ij}|}{\sum_i (X_{ij} + M_{ij})} \times 100$$
$$GLC = \frac{\sum_i (X_{ij} + M_{ij}) - \sum_i |X_{ij} - M_{ij}|}{\sum_i (X_{ij} + M_{ij}) - |\sum_i X_{ij} - \sum_i M_{ij}|} \times 100$$


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So, we measured Intra-industry trade by different approach by Grubel and Lloyd approach then, BG approach you know, Bergstrand approach. Then we talked about Grubel and Lloyd uncorrected approach and also corrected approach. You go and follow their respective lecture and find out the answer for it.

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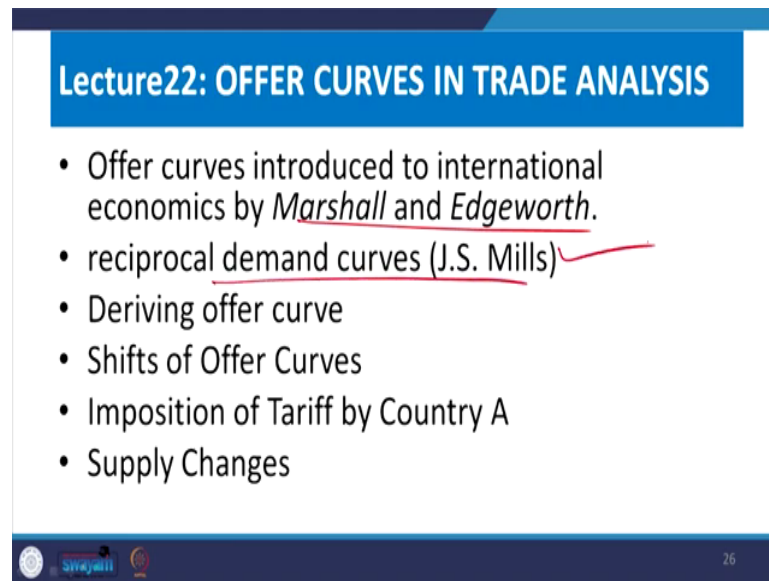
Week5-Lecture 21: Partial Equilibrium Analysis of Trade

- The advantages of partial equilibrium modelling
- The disadvantages of partial equilibrium modelling
- Offer Curves ✓
- Relationship between General and Partial Equilibrium Analyses ✓
- The Terms of Trade

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Now, lecture number 21, week number 5, we started discussing about partial equilibrium analysis of trade. Where we emphasize the simple demand framework and from there, we also derive a general equilibrium analysis by using offer curve and from where we discussed the terms of trade at large.

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The slide features a blue header with the text "Lecture22: OFFER CURVES IN TRADE ANALYSIS". Below the header is a list of six bullet points. The first two points, "Offer curves introduced to international economics by Marshall and Edgeworth." and "reciprocal demand curves (J.S. Mills)", are underlined in red. The bottom of the slide contains a dark blue footer with a logo on the left and the number "26" on the right.

Lecture22: OFFER CURVES IN TRADE ANALYSIS

- Offer curves introduced to international economics by Marshall and Edgeworth.
- reciprocal demand curves (J.S. Mills)
- Deriving offer curve
- Shifts of Offer Curves
- Imposition of Tariff by Country A
- Supply Changes

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So, offer curve in trade analysis was also emphasized separately in lecture number 22, where we discussed Marshall and Edgeworth, Worth's diagram we discussed the you know offer how to derive reciprocal demand curve as mentioned by J S Mill.

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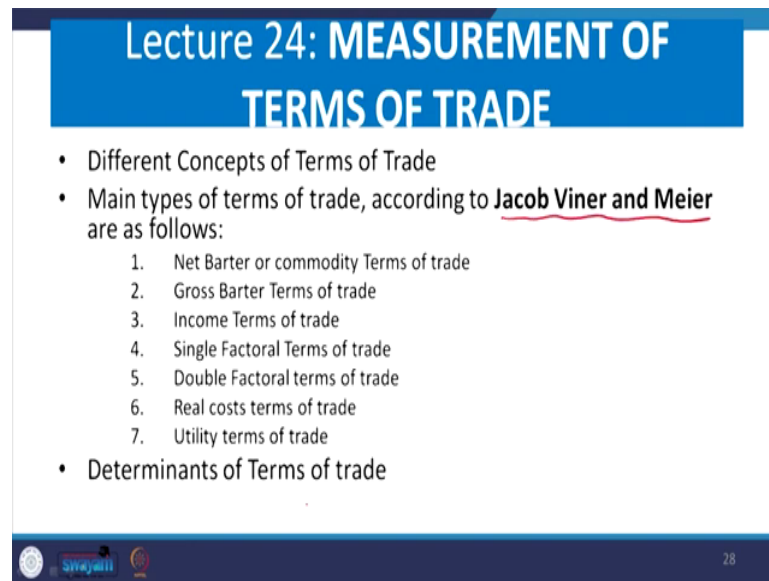
Lecture 23: TERMS OF TRADE WITH CASES

- The Oil Shocks of the 1970s
- Offer Curves and “Small” Countries
- The Equilibrium-Relative Commodity Price with Trade - General Equilibrium Analysis
- Immiserising Growth
- Terms of trade figures over last ten years

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And in lecture number 23rd we referred oil shocks and its impact on terms of trade, we referred to small country context; we talked about general equilibrium context, a immiserising growth rate was emphasized in this lecture and also we referred the data the figures of last 10 years on it.

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Lecture 24: MEASUREMENT OF TERMS OF TRADE

- Different Concepts of Terms of Trade
- Main types of terms of trade, according to Jacob Viner and Meier are as follows:
 1. Net Barter or commodity Terms of trade
 2. Gross Barter Terms of trade
 3. Income Terms of trade
 4. Single Factoral Terms of trade
 5. Double Factoral terms of trade
 6. Real costs terms of trade
 7. Utility terms of trade
- Determinants of Terms of trade


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And how to measure terms of trade? There are various instrument developed by Jacob Viner and Meier.

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Different Concepts of Terms of Trade

- **Gerald M. Meier** has classified the different concepts of terms of trade into the following three categories:
 - 1) Those that relate to the ratio of exchange between commodities:
 - 1) net barter terms of trade
 - 2) gross barter terms of trade, and
 - 3) income terms of trade
 - 2) Those that relate to the interchange between productive resources:
 - 1) single factorial terms of trade, and
 - 2) double factorial terms of trade
 - 3) Those that interpret the gains from trade in terms of utility analysis:
 - 1) real cost terms of trade, and
 - 2) utility terms of trade.

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And also determinants are emphasized, but there are different approach mentioned by Meier and with certain you know composition made by the professor.

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**Lecture25: TERMS OF TRADE:
DETERMINANTS AND IMPACTS**

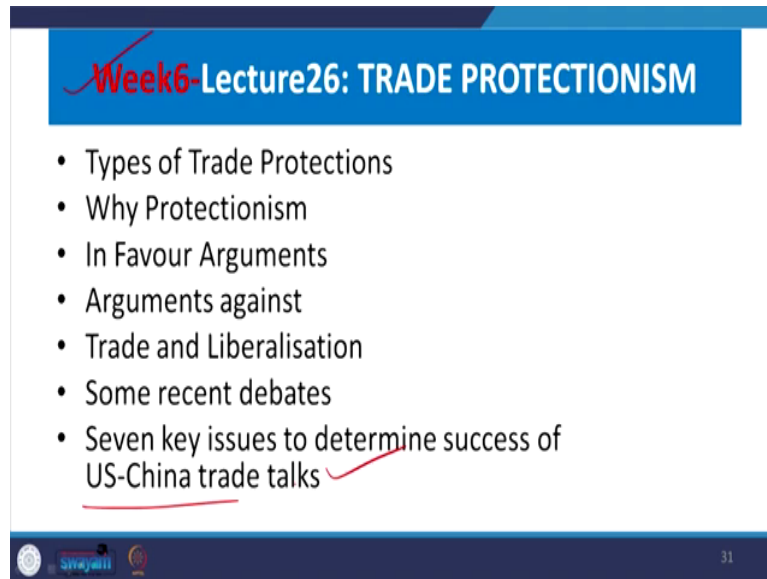
- Problems of Measurement
- Impacts of ToT
 - *Favourable Terms of trade:*
 - *Unfavourable Terms of trade*
- Principle of Reciprocal Demand
- Impact of Terms of Trade Changes on Economic Welfare: Evidence from China

◦

 30

And in lecture number 25, we talked about purely on determinants and its impact on trade.

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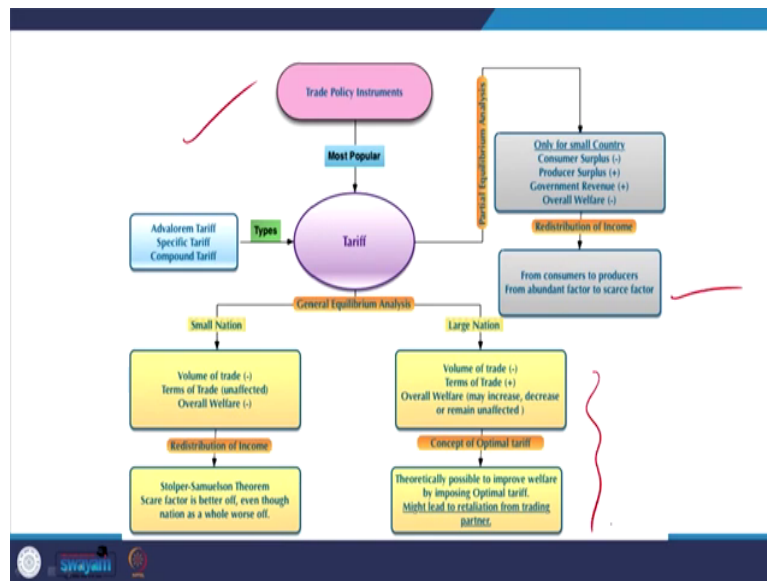
Week6-Lecture26: TRADE PROTECTIONISM

- Types of Trade Protections
- Why Protectionism
- In Favour Arguments
- Arguments against
- Trade and Liberalisation
- Some recent debates
- Seven key issues to determine success of US-China trade talks

31

On Lecture number 26, we talked about, just a minute, we talked about trade protection from week number 6 onwards trade protectionism were discussed at large. Why protectionism? What are the different types of protectionism? Arguments in favour, arguments in against and certain cases are given with the US and China trade; you know, war.

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And these are the you know, maps we discussed at large, you can go and follow accordingly from their respective session.

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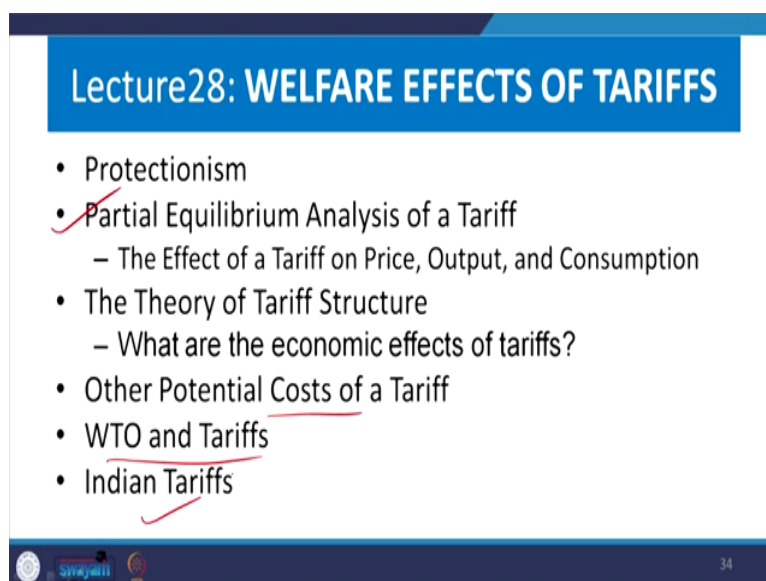
The slide features a blue header with the text 'Lecture27: TYPES OF PROTECTIONS'. Below the header is a white area containing a bulleted list of trade protection types. Red checkmarks are drawn next to several items in the list. At the bottom of the slide, there is a dark blue footer containing logos for 'swayam' and '3' on the left, and the number '33' on the right.

- Import vs. export tariffs
 - Ad valorem tariff ✓
 - Specific tariff ✓
 - A compound tariff ✓
- Import Quota ✓
- What are the economic effects of a quota? ✓
- Voluntary Export Restraint Programmes ✓
- Production Subsidies
- Embargoes
- Foreign Exchange Control

Lecture number 27 particularly on emphasizing types of protections and on the types, we compared ad valorem specific in compound, import quota economy effects of quota were also discussed VER Voluntary Export Restraint.

Then products subsidies, embargoes, foreign exchange control as we it mentioned that you know, tariff is not always successful. There are many evidences of non tariff barriers, you know, raise among the member countries because tariff is retaliatory and you know actual retaliated by another member country. On week number 28, we discussed welfare effects of tariff on consumers, producers revenue.

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Lecture28: WELFARE EFFECTS OF TARIFFS

- Protectionism
- Partial Equilibrium Analysis of a Tariff
 - The Effect of a Tariff on Price, Output, and Consumption
- The Theory of Tariff Structure
 - What are the economic effects of tariffs?
- Other Potential Costs of a Tariff
- WTO and Tariffs
- Indian Tariffs

34


So therefore, we discuss partial equilibrium analysis of tariff, then, we discussed about other potential cost of tariff WTO and its relevance of tariff and which surrounds or which negotiations tariffs are discussed in which level. Then Indian tariffs are actually emphasized with different time periods with the latest figures.

So, another lecture on 29 specially, we compare the nominal versus you know, effective rate of protection and with value added approach as well as you know the value added approach was mainly used.

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Lecture 29: EFFECTIVE PROTECTIONS

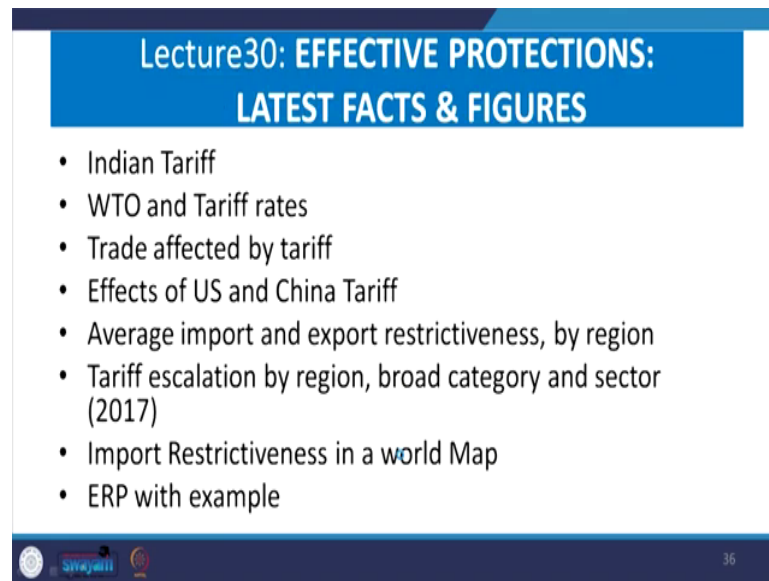
- Effective versus Nominal Rates of Protection
- Value Added Method
- The Theory of Tariff Structure
- The Rate of Effective Protection
- The Large Country Case
- Tariff in a Small Country
- Stolper-Samuelson Theorem
- The Optimum Tariff ✓

$$g = \frac{t - a_i t_i}{1 - a_i}$$


35

So, the theory of tariff structure was emphasized ah, the rate of effective protection are measured by this equation as we already mentioned you go and check. We compare after looking at this. We compare a small country versus large country context, you also refer the context for Stolper and Samuelson theory on distribution of income. We checked with optimum tariff in order to understand the effective tariff discussions.

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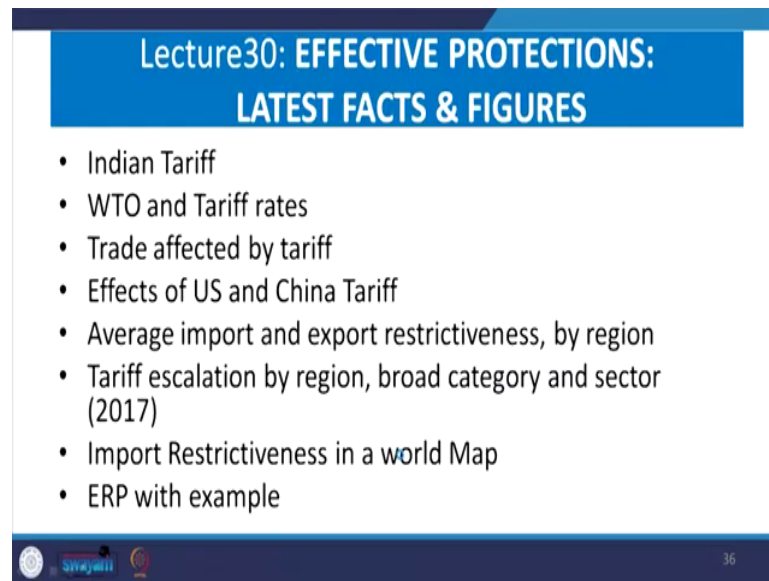
**Lecture30: EFFECTIVE PROTECTIONS:
LATEST FACTS & FIGURES**

- Indian Tariff
- WTO and Tariff rates
- Trade affected by tariff
- Effects of US and China Tariff
- Average import and export restrictiveness, by region
- Tariff escalation by region, broad category and sector (2017)
- Import Restrictiveness in a world Map
- ERP with example

swayam 36

Now, we also have in a lecture number 30, on effective protections latest facts and figures, specially on Indian tariff, WTO and tariff rates, then US and China tariff; why the tariff trade was is taking place recently between these 2 countries?

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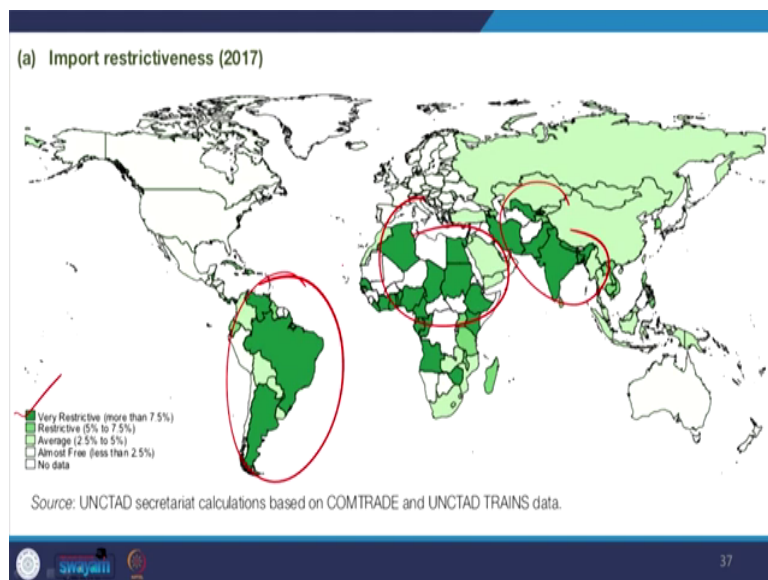
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- Indian Tariff
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- Trade affected by tariff
- Effects of US and China Tariff
- Average import and export restrictiveness, by region
- Tariff escalation by region, broad category and sector (2017)
- Import Restrictiveness in a world Map
- ERP with example

swayam 36

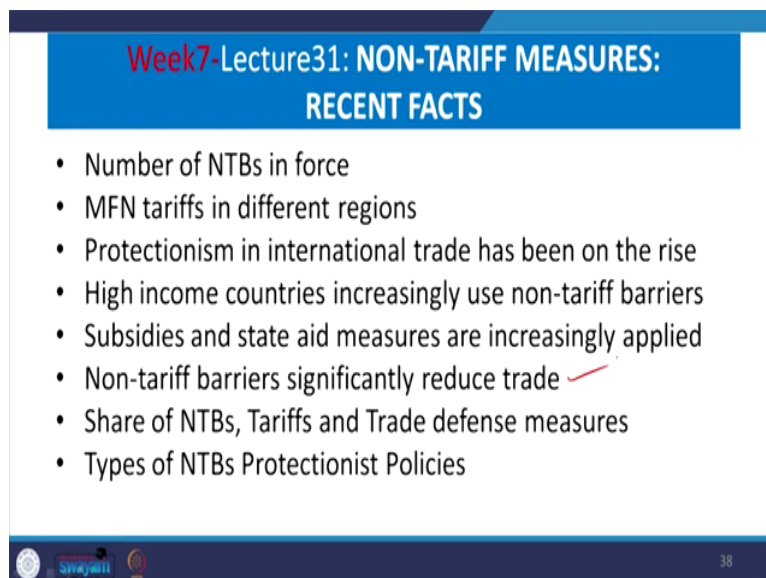
Then we try to map the you know extent of restriction of import and export by region, by sector, by tariff escalation by referring UNCTAD database. Then we check the world map with their effective rate of protection with different examples.

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Here once just sample of it which we have discussed at large in different sections. So now, look at very restrictive areas are here, and India and some parts of Africa. So, these are the top most restrictive import restrictive countries as per the UNCTAD report 2017.

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**Week7-Lecture31: NON-TARIFF MEASURES:
RECENT FACTS**

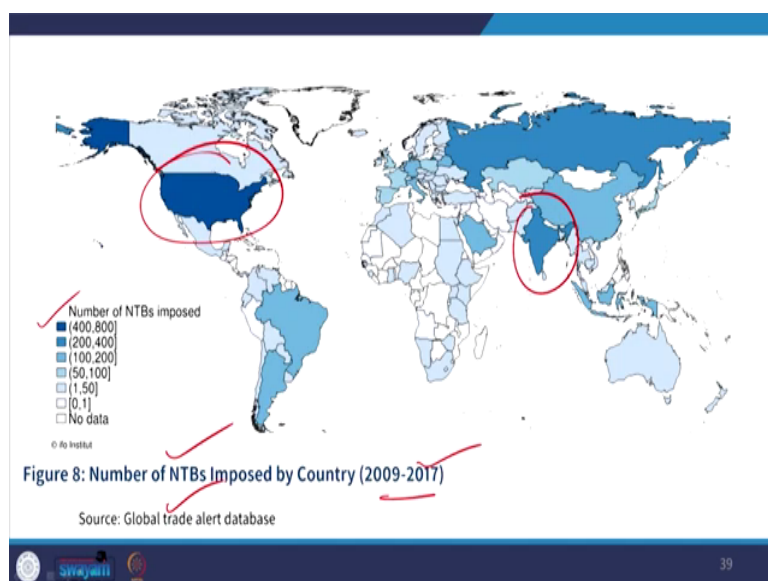
- Number of NTBs in force
- MFN tariffs in different regions
- Protectionism in international trade has been on the rise
- High income countries increasingly use non-tariff barriers
- Subsidies and state aid measures are increasingly applied
- Non-tariff barriers significantly reduce trade ✓
- Share of NTBs, Tariffs and Trade defense measures
- Types of NTBs Protectionist Policies

swayam 38

Now on week number 7 we unfolded the discussion for non-tariff measures specially, highlighting the number of non-tariff barriers those were in force or in practice. Also, we understood MFN, most favoured nation tariff of different groups or different regions. And protectionism in international trade has been on the rise is one of the you know, conclusion of our understanding.

High income countries increasingly use non-tariff barriers as compared to tariff measures. Subsidies and state aid measures are increasingly applied as well, but it is not among the highest, but the other indicators are highest. And non-tariff barriers are significantly I mean non tariff barriers significantly reduces barriers, significantly reduce trade as emphasized in different article we referred during the you know week and its you know discussion. Similarly, share of non-tariff, barriers tariff and trade defense measures were made and discussed.

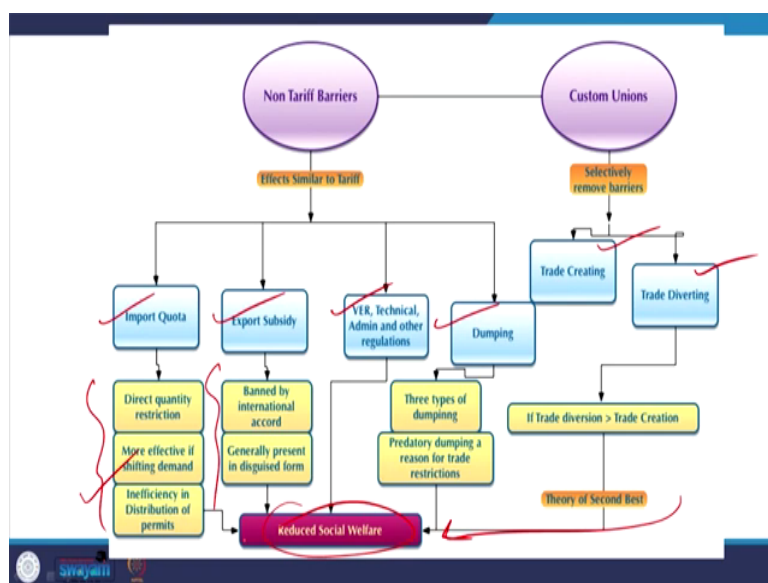
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I mean, of India as compared to others, type of non-tariff barriers and protectionist policies were also emphasized. Number of non-tariff barriers those who are above 400 to 800 or with the range of 400 to 800 it is US; we have repeatedly said US has more than 800 you know non-tariff barrier cases. As against India it is around 400, 398 cases till 20 from the duration 2009 to 2017.

And other parts of country are in this range, but these are that most important restrictive country. So, far as non-tariff barriers are concerned and these are the reports collected from global trade alert database.

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Then, as part of the discussion on you know non-tariff barriers, as I said these are the way we discussed quota, subsidies, voluntary export restraint, dumping. Then we discussed their you know implications to the society, then in the very last week we discussed about trade creation versus trade diversion.

So, and also the theory of second based. I am just coming to the discussion of theory of second based in a short while. So, ultimately we are emphasizing on the economic welfare of different countries.

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Lecture 32: TYPES OF NON-TARIFF BARRIERS

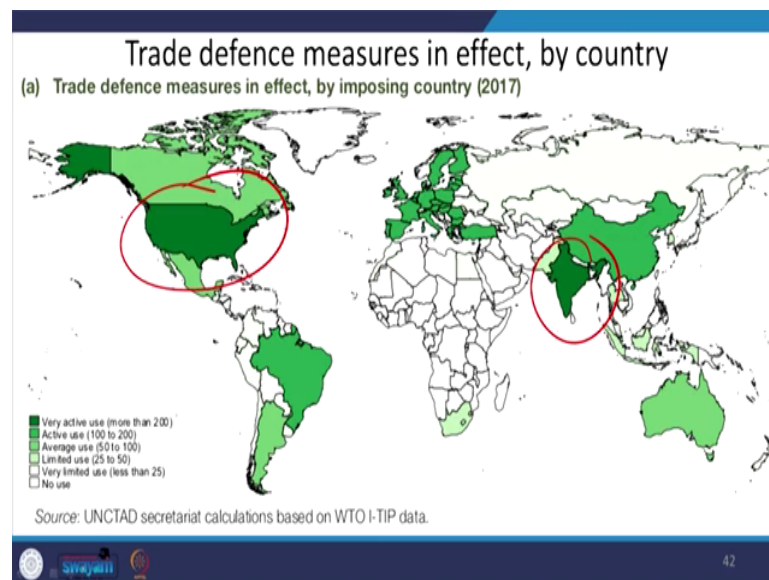
- Tariff changes
- Trade defence measures
 - Anti-circumvention
 - Anti-dumping
 - Anti-subsidy
 - Safeguard
- Non-tariff barriers
 - Import controls
 - State aid and subsidies
 - Public procurement policy
 - Localisation policy
 - Capital controls and exchange rate policy
 - Export controls
 - Other instruments
 - SPS
 - TBT

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So, on lecture number 32, largely we talked about types of non-tariff barriers, different types; though it was there in the chart now there are certain trade defense measures you know anti you know circumvention, anti-dumping, subsidy, then safeguard.

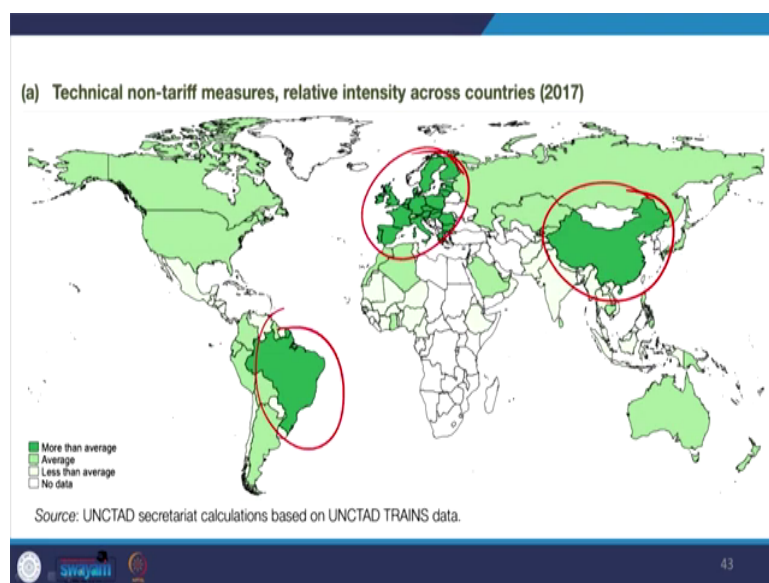
Then in non-tariff barriers measure we discussed these import controls, subsidies, state-aid and subsidies, procurement policy, localisation capital control, export control. So, and most importantly is not SPS and TBT's those we have separate sections also.

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Now, this is the map where we discussed various restrictive views in which part of the country again India US. So far as, those measures are concerned non-tariff barrier measures are concerned.

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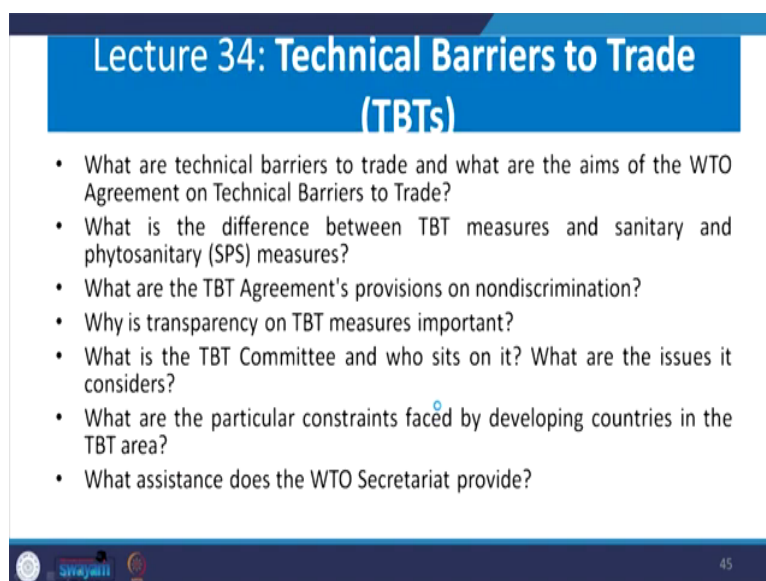
Now, another map which captures non-tariff measures and their relative intensity across countries, the intensity is very high when measures are taken, intensity is very high in China and some parts of the European countries, ok.

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The slide features a blue header with the text 'Lecture33: EFFECTS OF NON-TARIFF BARRIERS'. Below the header, there are two main sections. The first section is '– Import quota:' followed by two bullet points: '• Higher domestic price than tariff' and '• Higher domestic production than tariff'. The second section is '– Import tariff:' followed by two bullet points: '• Higher consumption than quota' and '• Higher imports than quota'. There are red handwritten marks on the slide, including a checkmark over 'consumption' and 'quota' in the second section, and a checkmark over 'imports' in the second section. At the bottom left, there are logos for 'Sri Jayanti' and 'Sri Jayanti'. At the bottom right, the number '44' is visible.

So, we you go to the respective section and verify accordingly. On lecture number 33, we checked import quota, we said that higher domestic it has you know impact in terms of higher domestic price the as compared to tariff and import quota is higher domestic production then tariff. Whereas, tariff is higher conjunction impact then quota and higher imports then quota.

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Lecture 34: Technical Barriers to Trade (TBTs)

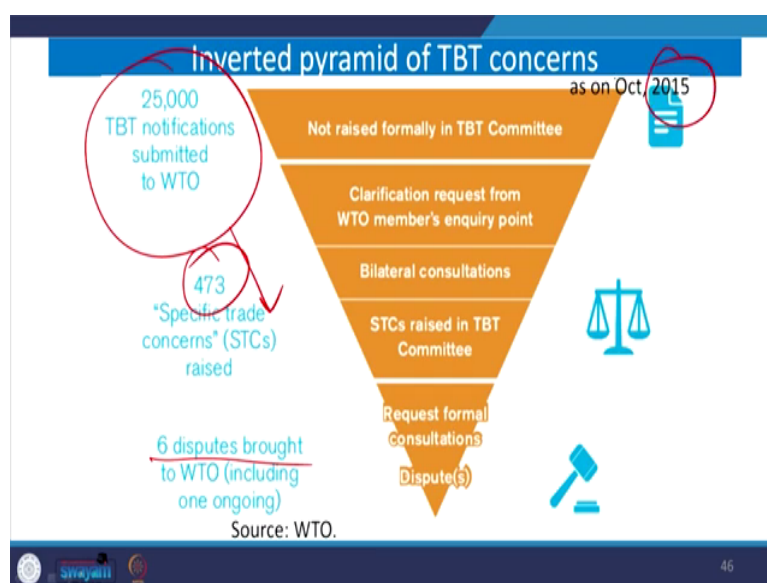
- What are technical barriers to trade and what are the aims of the WTO Agreement on Technical Barriers to Trade?
- What is the difference between TBT measures and sanitary and phytosanitary (SPS) measures?
- What are the TBT Agreement's provisions on nondiscrimination?
- Why is transparency on TBT measures important?
- What is the TBT Committee and who sits on it? What are the issues it considers?
- What are the particular constraints faced by developing countries in the TBT area?
- What assistance does the WTO Secretariat provide?

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So, some of the comparison we made it on lecture number 34 particularly, one of the latest aspects of trade restriction or protectionism is none other than technical barriers to trade. We discuss it why what are technical barriers? How is it different than SPS? We discuss about the provisions of non-discriminatory norms of WTO and transparency patterns of WTO.

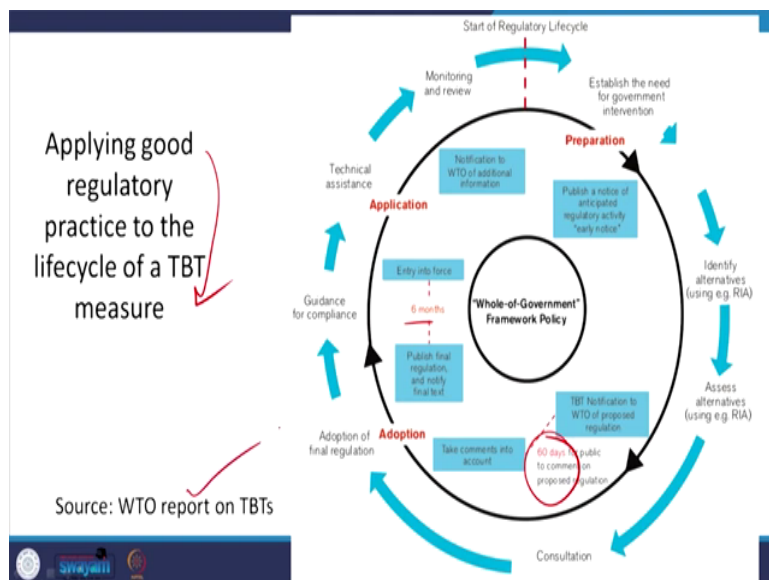
We also emphasized different TBT committees, who are the members? Who says what kind of issues are taken off? We also at large emphasize the developing countries context and what kind of assistance are provided by the secretariat on in this context or emphasize.

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Now, this is very important figure because is a very latest where 25,000 TBT notification made to WTO, out of which 300 and 473 specific trade concerns STC's are raised. Out of that only 6 disputes are actually discussion WTO you know, negotiations. We will discuss how as per the October 2015 data.

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Now, this is the one how processes are there, a regulatory processes by which any decisions are taken. Now periods are given you go to that and then check how you know, it takes time this has a report taken from WTO on TBT.

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Lecture35: Sanitary and Phytosanitary Measures (SPS)

- Prevalence of non-tariff measures, by type and broad category (2017)
- Estimates of SPS
- SPS measures: Trends in developed and developing countries
- Trends in the use of SPS objectives
- India's applications of SPS measures:
 - From 1995 to July 2010, India made 84 SPS notifications, covering 2,444 products at the four-digit level. This compares poorly with China's 364 notifications.
- Issues of transparency in the SPS Agreement
- Resolving a trade concern: Cinnamon exports from Sri Lanka

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Similarly, SPS also we checked all those questions, the figures were collected for to 2017, estimates of SPS are made; then India's implications on this SPS measures, issues related to transparency, a special case was solved. We have given this case study on cinnamon exports from Sri Lanka, as a case discussed where you know we emphasized how the SPS committees could be able to actually solve the problems for Sri Lanka's exports of cinnamon to European countries.

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Week8-Lecture 36: Economic Integration: Blocs and Blocks

- Types of trade blocs
- Long history of use
- Trade Blocs - Success or Failure?
- Types of Trade Blocs
 - Preferential Trade Arrangements
 - Free Trade Area (FTA)
 - Customs Union
 - Common Market
 - Economic Union
- What are the principles of multilateral trading system as embodied in the WTO agreements?
 - What is trade without discrimination?
 - What is the Most Favored Nation (MFN) treatment?
 - Are there any exceptions to the MFN Principle?
 - What is the national treatment principle?

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So, on the week number 8 at the last week, we discussed most importantly an economic integration. Finally, after understanding you know restrictions initially we discuss theories then some restrictions, some protection, tariff and non-tariff, then we unfold at the discussion of integration; how member countries are actually integrating joining hands together to develop strategies and accordingly they protect themselves.

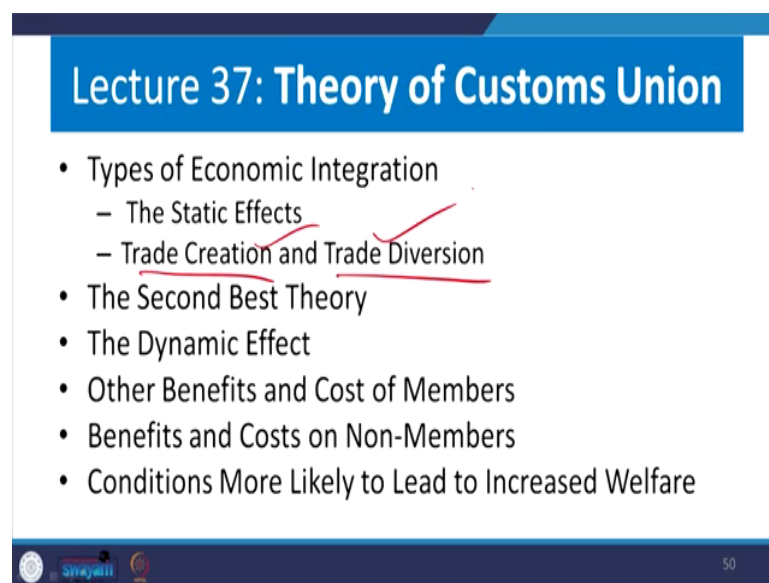
So, we discuss the history of use of the you know integration we discuss blocs as compared to block; this is restriction, this is actually group groupism or developing groups, their success and failure aspects and types of trade blocs.

Specially we discussed preferential trading agreement, free trade area, customs union, common market, economic union we cited different countries example, specially Morocco-survey cited we exam, cited ASEAN, we cited European Union, we cited SAFTA,

we cited NAFTA, there are various way by which you can differentiate you can refer to lecture number 36 for further this clarity.

Now, as for the discussion and WTO there are certain principles by which these are made; one is called without discrimination principle, MFN status and what are their exceptions to those MFN are actually taken off in the succeeding lecture.

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The slide features a blue header with the title 'Lecture 37: Theory of Customs Union'. Below the header is a white area containing a bulleted list of topics. The list includes 'Types of Economic Integration' with sub-points 'The Static Effects' and 'Trade Creation and Trade Diversion'. Other items are 'The Second Best Theory', 'The Dynamic Effect', 'Other Benefits and Cost of Members', 'Benefits and Costs on Non-Members', and 'Conditions More Likely to Lead to Increased Welfare'. The slide footer contains logos for Swajati and a page number '50'.

Lecture 37: Theory of Customs Union

- Types of Economic Integration
 - The Static Effects
 - Trade Creation and Trade Diversion
- The Second Best Theory
- The Dynamic Effect
- Other Benefits and Cost of Members
- Benefits and Costs on Non-Members
- Conditions More Likely to Lead to Increased Welfare

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Now, on lecture number 37, we discussed the theory of customs union where we emphasize the static effects of integration, we emphasize very clearly on trade creation versus trade diversion, some members are creating trade whereas, while creating there are some you know cost issue also with the earlier membership. So, it also diverse certain possible cost.

So, while we have different forms of you know creation versus diversion, they I mean, welfare is not optimized. So therefore, certain some theories on second based principles are suggested, dynamic effects of customs union was also suggested, you can refer benefits and or cost of member as well as non-member are talked about and conditions are more likely to I mean lead to increase welfare. We also discussed about the conditions on lecture number 38 particularly, we discussed structure and functions of WTO.

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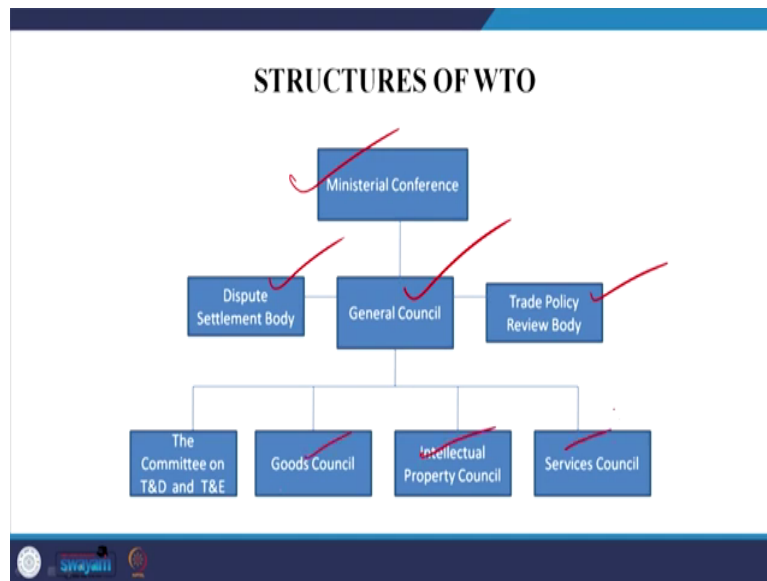
Lecture38: Structure and Functions of WTO

- Trade Negotiations
- Dispute settlement System
- Structure
- Objectives
- Functions
- Scope
 - Trade in Goods: (GATT)
 - Trade Related Intellectual Property Rights (TRIPs).
 - Trade Related Investments Measures (TRIMs).
 - General Agreement on Trade in Services. (GATS).
- Argument in favour

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Specially, trade negotiation, trade dispute, settlement, structure, objectives, functions, the scope, scope related to goods specially in the GAT period. It was restricted only goods or services were actually taken off from WTO, its inception in 1995 and TRIP's also included TRIM's GAT's services related.

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We discussed argument in favour of WTO, these are the structure, ministerial conference which is at the apex body of WTO. There are sub bodies, majorly dispute settlement, body, general council and trade policy review body, under general council goods, intellectual property services are actually included.

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The details you can follow it from the WTO website. Here is the platform, we have already discussed in detail in that lecture.

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Now, till the date 98 percent of the total trade is actually accompanied by the member countries. Still, there are some countries are in the accession process, you know only 22 and some countries are actually not at all the member ok. So, we can follow these also through WTO website and you can click also each of the points separately.

(Refer Slide Time: 32:22)

The slide features a blue header with the text 'Lecture 39: India and WTO'. Below the header, there is a list of bullet points. The first bullet point is 'Recent Cases'. The second bullet point is 'Rock 'n Roll in Bangladesh: Protecting Intellectual Property Rights in Music', which has a red bracket to its left. Under this second bullet point, there is a sub-point: '- Bangladesh music band complained against the Anu Malik for the music track in 'Murder''. The third bullet point is 'India's RTAs', which has a red checkmark to its right. Under this third bullet point, there are four sub-points: '- In force', '- In accession', '- Early announcement', and '- Groups in negotiation', each with a red checkmark to its right. At the bottom left of the slide, there are logos for 'swayam' and 'MOE'. At the bottom right, the number '55' is displayed.

- Recent Cases
- Rock 'n Roll in Bangladesh: Protecting Intellectual Property Rights in Music
 - Bangladesh music band complained against the Anu Malik for the music track in 'Murder'
- India's RTAs
 - In force
 - In accession
 - Early announcement
 - Groups in negotiation

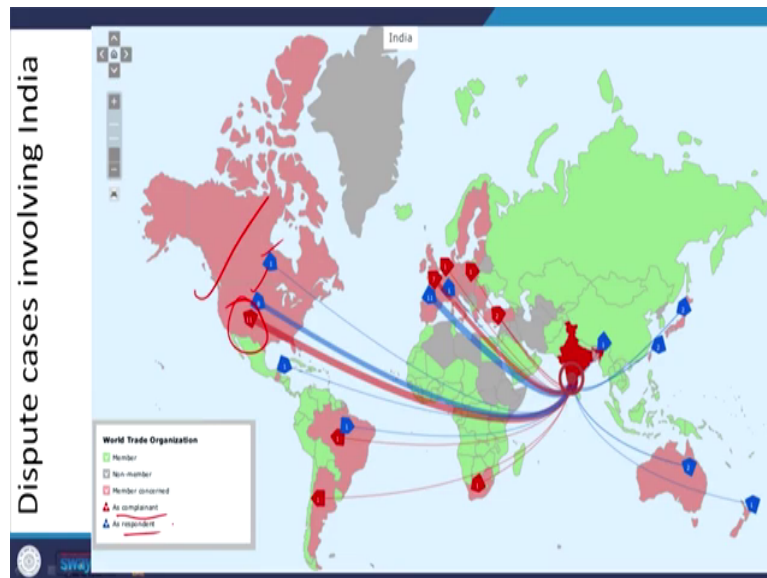
So, on then lecture number 39, we unfolded the discussion of recent cases, specially one important case a dispute settlement case raised by Bangladesh on Indian you know Indian film industry for a particular movie 'Murder' where, a song was actually copied from Bangladesh you know, music band called 'Miles'.

So, they raised the complaint against Anu Malik and through the various dispute settlement, bodies by highlighting the intellectual property rights case Bangladesh on the case and there are number of compensation made and WTO you know, guarantees the protection of certain issues.

So, therefore, this was discussed you can refer to lecture number 39 in clearly then in India's latest RTA's regional trading agreements as part of you know, international integration are

discussed. Those are in force, those are in accession, those are early announcement and those are in group like G20, G33 nations, G7 nations those are actually discussed in detail.

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Now, this is the map at the last of our concluding session, on how disputes are actually dealt specially, from Indian case. Now, if I cite 11 cases were raised by India, US product, whereas this was the case; India is the complainant and in blue India is solving is actually is respondent to the complaint raised by different countries.

Similarly, in the red color it is highlighted as India is actually complaining raise complaint the WTO negotiation for number of violences made whereas, in the blue it is India is resolving and or India is actually the respondent to the complaints raised by different committees. So in short, we discussed the complaint for India 24 complaints as respondent 31 and is a third 1460.

So, friends what we have made in totality? In short, we discussed you know classical theory to modern the new classical based on the context, their cases then we actually wrapped up with various factors, various diagram, modeling, measurement to have better strategies.

And we also talked about the latest policies which are you know, used at last for strategy and protectionism by the member countries. And at the last, we summed up with integration how member countries tie up each other to have better you know, and a holistic strategy in the present rate of discussion of strategic trade and protectionism.

So, therefore, these are all for discussion. I hope you enjoy all the sessions on different issues and many contexts are already given within the you know each of the PPT's to answer the questions which are going to be asked in differentiation for evaluation.

I hope this is going to be very successful in if any doubts are coming, you can clarified during the each course of is interaction, we will have separately. And you can raise your questions and there are number of questions also floated in addition to each week lectures.

So, with this I also stop here.

Thank you so much.