

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

Lecture - 07
From Mercantilism to Adam Smith

Welcome to the second week lecture on Mercantilism to Adam Smith, as part of the NPTEL module on Strategic Trade and Protectionism Theory and Empirics; myself Dr. Pratap Chandra Mohanty as a faculty member in the Department of Humanities and Social Sciences. So, I hope you guys could be able to infer what we have been trying to actually proceed in order to follow each and every one of you know bits and pieces of the strategic trade through theories.

This is the second week, second lecture and this week is purely targeted on deriving many facts, figures, issues from the classical economist; namely Adam Smith and David Ricardo. Where you know the classical economics and their views; economist and their views have largely been engaged in explaining the trade based on certain extent of specialization.

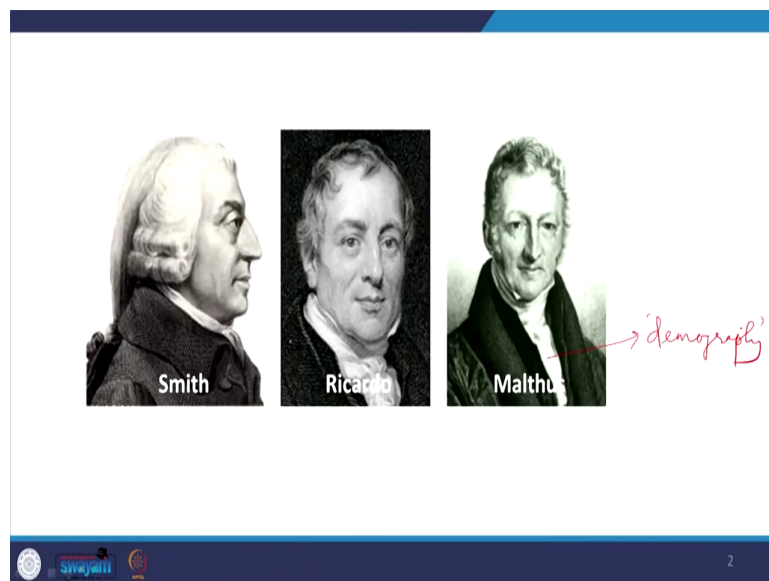
So, now let me proceed further, we have already discussed mercantilism in the last lecture. In the mercantilism as you know as a reminder or as you know recapitulation to the lectures; mercantilism is purely based on zero sum game. And, they believed who I mean; under mercantilism physiocrats suggest that, they are the thinkers of mercantilism. They suggest that you know the country would prosper or could prosper if and only if, we have you know a higher exports than imports; they are against imports, they are also restricted their sea or ports for others to enter.

There are lots of you know hindrances during you know mercantilism periods. Specially if you count state intervention, it was in fact very huge; you know they believe on nationalism concept of nationalism or statehood. But in reality you know which is you know contracted by other countries, retaliated by other countries; therefore, the dimension by which one country starts may not be sustainable to other countries. So, mercantilism actually over the time highly criticized.

So, now let us move to the exact calculation, some certain estimations of international trade; especially the theories on international trade, which derives the differences in absolute cost advantages by which trade is possible. So, Adam Smith as we all know the Father of Economics, because of many systematic, conceptualization of foundation of economics. And in fact, mercantilism usually not referred in the context of international trade theories; because of the fact that, they do not have any systematic record, systematic argument, no scientific argument behind their claim.

So, therefore, Adam Smith, the next you know contributor to economic theories has actually you know explained things in a every you know robust and strong manner. Now they are the people we are going to talk about in this you know class or in this hour.

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Smith, Adam Smith is the first person in the picture, David Ricardo, Malthus. Malthus is also referred only because he used to emphasize, his contribution is measured in the area of a population, demography. And where a famous concept given by Malthus; the geometric progression versus arithmetic progression, the population will grow as per his views, population will grow at geometric progression whereas the growth of the country that is GDP grow at an arithmetic progression.

Though largely that is based on a situation of the European economy; but later on their views are actually again rejected by the empirical estimations of different countries; specially in developing countries these theories not that applicable, if the developing countries actually encase the demographic dividend out of it. Now, again what I wanted to say are the following in this set of lectures; specially on broad you know overview of theories, where we are supposed to understand you know absolute cost advantage.

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The slide is titled "Trade Theories" and is divided into two main sections: "Classical" and "Modern".

- Classical**
 - 1. Mercantilism (William Petty, Thomas Munn and Antoine de Montchrétien model)
 - 2. The Absolute Advantage (Adam Smith model)
 - 3. The Comparative Advantage (David Ricardo model)
- Modern**
 - 1. Resources and Trade (The Eli Heckscher and Bertil Ohlin Model)
 - 2. Specific Factors and Income Distribution (Paul Samuelson - Ronald Jones Model)
 - 3. The Standard Model of Trade (Paul Krugman – Maurice Obstfeld Model)
 - 4. The Competitive Advantage (Michael Porter's Model)


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Mercantilism we have already dealt with, where we emphasize William Petty and Thomas Munn. And Adam Smith you know contributed you know absolute cost advantage theory. So, we are explaining cost advantage theory in detail; similarly comparative cost advantage theory by David Ricardo.

And, as per the modern theories are concerned, they emphasize on resources and its role on trade, they also talked about specific factors in their distribution of income after trade; specially by Samuelson and Jones. They are also started models based on specialization and economy of scale by you know Krugman Maurice Obstfeld. And the competitive advantage model was actually you know propagated or suggested by Michael Porter, who is very famous for understanding of competition.

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Adam Smith (1723-1790)



- Appointed to the chair of logic in 1751 at the University of Glasgow, Scotland.
- In 1752 he transferred to the chair of philosophy.
- On his travels to France, he was influenced by the writings of the Physiocrats.
- 1776 → *The Theory of Moral Sentiments and an Inquiry Into the Nature of Causes of the Wealth of Nations* was published.

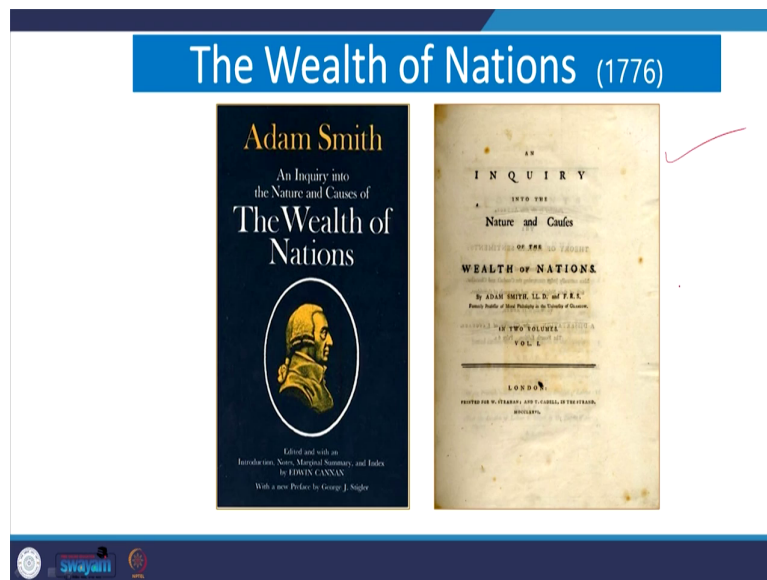
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Now, let us understand the details of Adam Smith theory at the foundation to international trade discussion international trade strategies. So, we are referring to the period 23, 1723 to 1719, where you know as we all know Adam Smith he was a professor at University of Glasgow, Scotland. And he was also a chair in 1751; these are all background for understanding of know who is Adam Smith, why he is called the Father of Economics.

1752 transferred to a chair of philosophy and on his travel to France he was also influenced by the writings of Physiocrats. 1776 a theory of Moral Sentiments and an inquiry into the nature of causes of wealth of nations was published. So, this is the period where the book, the masterpiece of his was actually published. From that onwards Adam Smith has been on limelight or was on lime light and referred in the discussions of economic theories. So,

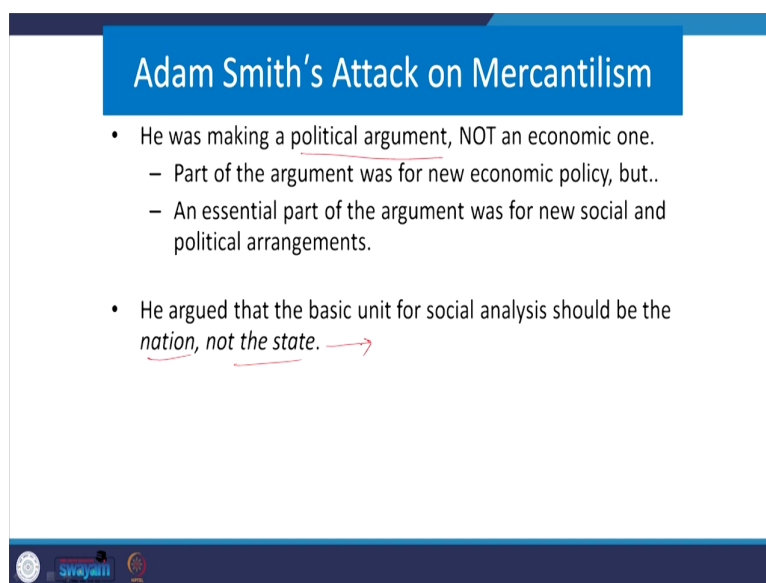
vehement attack, he made vehement attack on mercantilist; because of their propositions which are actually against trade.

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So, this is the book we are referring to; we are referring to this book Wealth of Nation. The original piece is here and later on revise into different versions; different editions are actually made available by different experts interpreted by different people.

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The slide features a blue header with the title "Adam Smith's Attack on Mercantilism". Below the header, there are two main bullet points. The first bullet point states that he was making a political argument, not an economic one, and includes two sub-points: one about new economic policy and another about new social and political arrangements. The second bullet point states that he argued the basic unit for social analysis should be the nation, not the state, with red underlines and an arrow pointing to the right. At the bottom of the slide, there are logos for "swayam" and other institutional symbols.

Adam Smith's Attack on Mercantilism

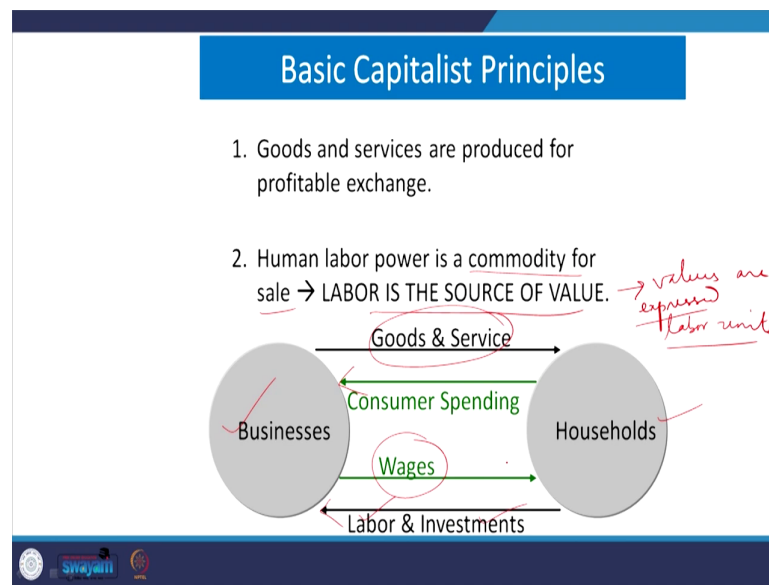
- He was making a political argument, NOT an economic one.
 - Part of the argument was for new economic policy, but..
 - An essential part of the argument was for new social and political arrangements.
- He argued that the basic unit for social analysis should be the nation, not the state. →

Adam Smith attack on mercantilism, because of certain enough of the following you know matters; specially political arguments were not in economic one, they are majorly based on mercantilism views on majorly restricted to political you know views. And part of the argument was for new economic policy; why you know, how you know counteracted the mercantilism. Then he argued that the basic unit for social analysis should be nation not the state. As we have already said that, mercantilism principles were based on statehood or the nationalism concept; but then nation and the people, how they are benefited in the long run or sustainably have not been discussed in detail.

So, he was against the believe that it was of zero sum game; so, zero sum game. So, what you mean by zero sum game? This means that, you know some one's gain at the cost of another's loss. So, this is not true in later part of theories. Let us say it is positive sum game; no question of zero sum, all can grow together. So, both lesson gained. So, what are the capitalist

principles by which we are discussing the you know theories. The capitalist principles largely based on you know value additions through you know goods and services produced and usually for a profitable exchange.

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And human labor is a power of, labor power is a commodity for sale. So, labor is the source of value; throughout the classical economist and the views are largely based on labor. I mean values are expressed are expressed in labor units. Only because of the fact that, other factors are not explore and market value of other factors are not presented in detail during that time; only you know laborer and their contributions are expressed. Even laborer were not exactly expressed by the market value and you might have heard about bonded labor; largely they are actually you know even bonded labor are imported, exported or you know taken freely from you know developing countries largely Indian continent and you know sold in American or other parts of the world.

So, what we try to say, how basic capitalist principles work; there are you know different units of production, units of consumption, where the cycle bridges the gap. The business units actually provides goods and services in live, the households or the units of consumption; I mean another units of the cycle is the household they provide consumption and consumer spending of the goods and services. And here the houses provide the consumer spending. So, therefore, whatever the products are produced in the business units are actually solved by the households.

Similarly, what are the requirements of the business units is labor and investment, it is provided by laborers; I mean the households, in terms of laborers and in terms of investments, their savings are excess analyzed to investments. So, in accordingly wages are actually paid by the business units to the households. And that were again which kind of wages equivalent to the labor hours they spent. And even largely capitalistic economy emerged because of the fact that, there are some kind of you know said laid you know wages.

These wages are not paid as per the contribution made by the household to the businessman to the business units. So, therefore, the capitalist growth were actually observed during that period.

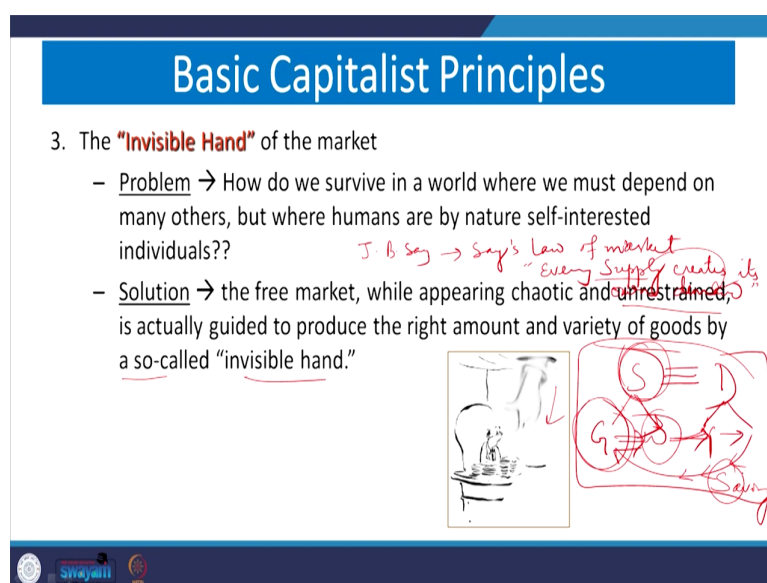
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Basic Capitalist Principles

3. The **"Invisible Hand"** of the market

- Problem → How do we survive in a world where we must depend on many others, but where humans are by nature self-interested individuals??
- Solution → the free market, while appearing chaotic and unrestrained, is actually guided to produce the right amount and variety of goods by a so-called "invisible hand."

*J. B. Say → Say's Law of market
"Every Supply creates its own Demand"*



The slide features a blue header with the title 'Basic Capitalist Principles'. Below the title, there is a numbered list item '3. The "Invisible Hand" of the market'. Under this, there are two bullet points: one for 'Problem' and one for 'Solution'. To the right of the 'Solution' bullet point, there is a handwritten note in red ink: 'J. B. Say → Say's Law of market "Every Supply creates its own Demand"'. Below the text, there are two images: on the left, a drawing of an hourglass; on the right, a supply and demand diagram with handwritten red annotations. The diagram shows a supply curve (S) and a demand curve (D) intersecting at an equilibrium point. There are also handwritten letters 'G' and 'D' and arrows indicating the flow of goods and money. At the bottom of the slide, there are logos for 'swayam' and other educational institutions.

Some other basic principles by which we know classical economist developed; specially Adam Smith develop his theory, it is also largely based on invisible hands it is of the market. So, it is we did not worry about the you know government to intervene; only because of the fact that, things are automatically solved.

And these are again based on some other classical economists view like J B say that is also called says laws says law of market, which says that; every supply creates its own demand. So, the queen's government used to receive these suggestions from the experts, from the classical economist that you know you need not worry so much to intervene to the units of our market; because market will automatically function and correct the mismatch.

How do you survive in a world where we must depend on many others, where humans are by nature self-interested individuals? So, how do you survive in a world where we must depend

on many others; whereas actually individuals, so the humans are actually highly self centric or self interested. So, it seems as if there are some sort of you know conflict of interest arrives. So, far as you know we are mixing or exchanging you know one set of production units and outputs to another one; because of the fact that you know the self satisfied person or the self interested person might derive you know, might you go for a self-centric you know behavior which will result in confusions.

But the solution lies with the market only, because the free market while appearing cavity on restraint is actually guided to produce the right amount and variety of goods by it so called invisible hand. So, the invisible hand is here, is there is any kind of you know mismatch or in balances it will safe; because you know whatever is produced, whatever is supplied are automatically demanded.

Why demanded supply equal to demand only; because those producing units will actually generate two things goods and services or specially goods. Then also they those supplying units; whatever the goods actually generated, they also generate income in terms of wages. So, those wages are part of the income of the households. So, these are the income of the households. So, they these incomes are actually demanded, then these incomes are useful to demand the goods produced by the supply units

So, therefore, whatever the you know products produced in an unit equivalent to that amount of income is generated and income is transferred to the factors of production. And factors of productions utilize their income for purchasing the goods and services; therefore, the economy is correcting eventually. But these problems are not observed during that period; at least for 200 years where the classical economy and their classical you know economist view and their views are actually continued for long period.

What happens over the time; a person whoever is earning money they have a tendency to save, save certain portion of their income. So, saving is the leakage to the system. So, saving whatever is there, we are taking a saving; savings is a leakage you know that is get saved, that does not derive immediate demand.

So, you know perpetually it is gets its different in the long run. So, you know it gets perpetuated over a long run and what will happens you know, in the long run that amount becomes I mean the leakage becomes very huge. Initially what happens, it reduce the total demand, total demand would not be there that much; in the next time the supply will cut short their production since total demand is not there.

So, therefore, again less income is generated. So, less income then less further less demand; then further less demand, further less demand then further less production. So, the economy eventually proceeds or economy proceeding towards a decision, which was actually observed in 1930s. So, we will discuss in some other lecture; but this is the mechanism where classical logic believe that actually there will be no problem and whatever is income you know generated in economy that will demanding the products of the producing units.

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Basic Capitalist Principles

4. Individuals seeking success are driven by self-interest → **Profit Motive**
5. The **Law of Supply and Demand**
 - Individuals who are free to pursue their self-interest will produce goods and services that others want, at prices others will be willing to pay.

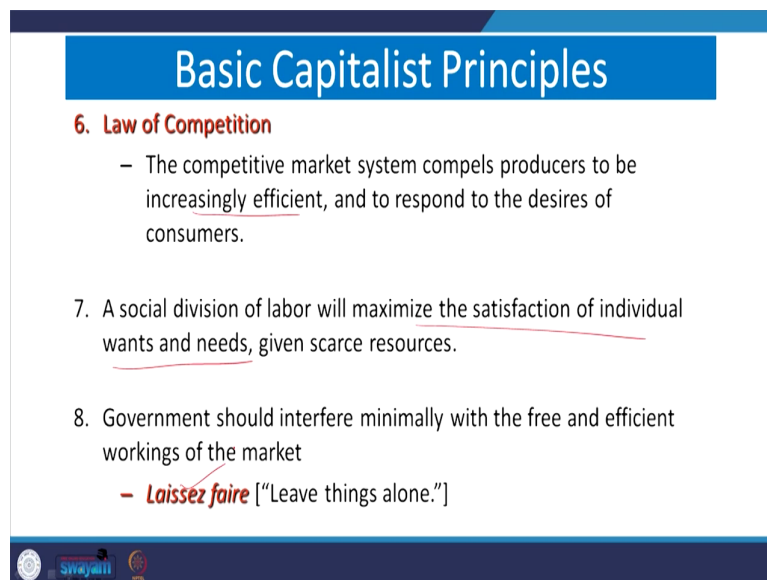
The graph, titled 'Supply and Demand', plots Price on the vertical axis (0 to 6) and Quantity on the horizontal axis (0 to 60). A downward-sloping Demand curve and an upward-sloping Supply curve intersect at an equilibrium point labeled 'Equilibrium' with a price of 2 and a quantity of 40. Above the equilibrium, the area between the curves is labeled 'Surplus'. Below the equilibrium, the area between the curves is labeled 'Shortage'.

Quantity (Q)	Demand Price (P _D)	Supply Price (P _S)
10	5	1
20	4	2
30	3	3
40	2	4
50	1	5
60	0	6

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So, therefore, the mercantilism is self regulating. So, this is their belief. And similarly individual seeking success are driven by self interest profit motive. So, it is based on law of supply and demand. So, largely this is the equilibrium for load in this diagram with the basic demand and supply. If there will be any shortage as I already said; the price will rise and demand falls. So, accordingly you know if they are with surplus, price falls and the equilibrium gets maintained. So, it is a automatic you know rule which governs the equilibrium.

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The slide is titled "Basic Capitalist Principles" in a blue header. It contains three numbered points:

- 6. Law of Competition**
 - The competitive market system compels producers to be increasingly efficient, and to respond to the desires of consumers.
- 7. A social division of labor will maximize the satisfaction of individual wants and needs, given scarce resources.
- 8. Government should interfere minimally with the free and efficient workings of the market
 - *Laissez faire* ["Leave things alone."]

At the bottom left of the slide, there are three small logos: a circular emblem, the word "swajani" in a stylized font, and another circular emblem.

So, they also believe on law of competition; the competitive market system compels producers to be increasingly efficient and to respond to the desire of the consumers. A social division of labor will maximize the satisfaction of individual wants and needs, given the

scarce resources. Government should interfere minimally as we have already said and as less as possible; because of the fact that, you know the market gets corrected automatically.

So, they believe the economy must function automatically and so let the economy be free. So, they propose during that time they leave things alone that is called as a laissez faire. Laissez faire is the word coined by Adam Smith.

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what, why, whom

- **Basic questions**
 - What is the basis for trade?
 - What are gains from trade?
 - What is the pattern of trade?
- **Assumptions**
 - 2x2x1 model
 - Competitive markets →
 - Zero transportation cost

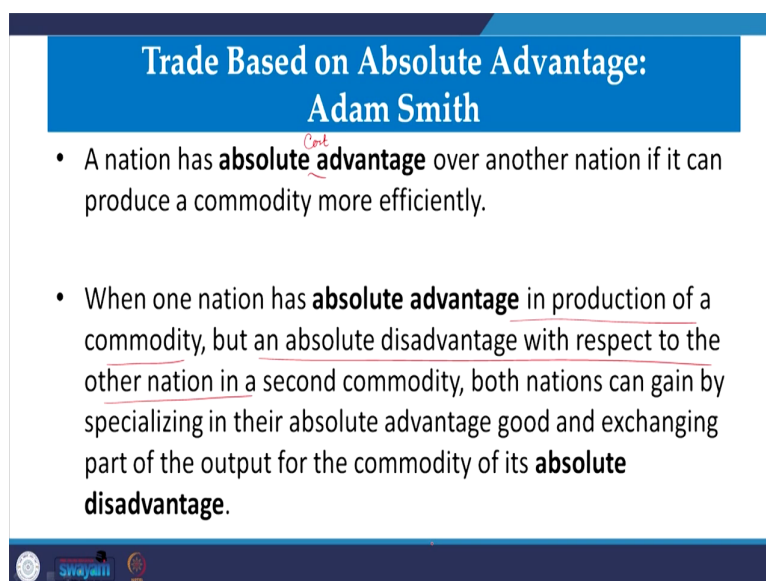
So, therefore, what are the questions left? So, given all those assumptions and basic premises of the classical economist; so we are supposed to understand what and what is the basis for trade; what, why and for whom. There are three questions we generally pose; what, why and for whom. So, in this context we are supposed to know, what is the basis for trade, what are the gains from trade, and what is the pattern of trade in the classical economist. So, accordingly some shortages are developed.

The assumptions are largely two countries; country A may be US and India and two goods. Let it be commodity x and y apple and cloth and cloth and wine is the you know standard example cloth and wine and one stands for one factor of production that is labor, labor units.

So, this is the first assumption they made it and the market must be competitive; there should not be any kind of you know imperfect competition in determining the prices of the factors and price of the products. So, price should not be actually scheduled by any other reason; so therefore, whatever market must be completely free, the market must actually you know give the best solutions to the production and the factors.

So, zero transportation cost was also assumed to understand that there should not any interference while we are discussing the theory of intersectoral, though that is not a realistic assumption.

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**Trade Based on Absolute Advantage:
Adam Smith**

- A nation has **absolute ^{Cost} advantage** over another nation if it can produce a commodity more efficiently.
- When one nation has **absolute advantage** in production of a commodity, but an absolute disadvantage with respect to the other nation in a second commodity, both nations can gain by specializing in their absolute advantage good and exchanging part of the output for the commodity of its **absolute disadvantage**.

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So, Adam Smith theory actually based on absolute cost advantage; I have said in, the original one is original proposition was in absolute cost differences. And the absolute cost advantage or the advantage model which they suggest is the following that; when one nation has a absolute advantage in production of one commodity, but an absolute disadvantage with respect to other nation in a second commodity, both nation can gain by specializing their absolute advantage goods and exchanging you know part of the output of the commodity of its absolute disadvantage.

What do you mean by the this suggest that; the country which has absolute advantage in certain products or one product the country must specialize in that particular product, and the disadvantage product must be produced in another country. So, therefore, there will be quid pro quo and trade is possible.

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**Trade Based on Absolute Advantage:
Adam Smith**

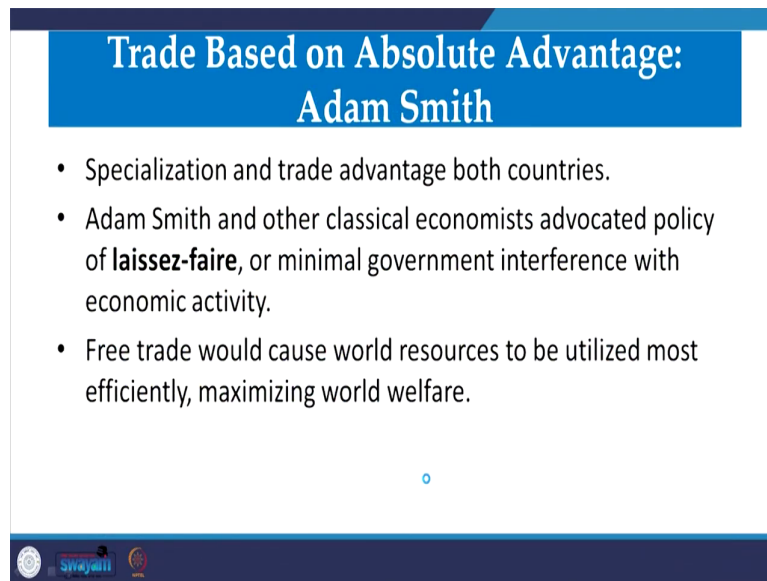
- **Example:**
 - Canada is efficient in growing wheat, inefficient in growing bananas.
 - Nicaragua is efficient in growing bananas, inefficient in growing wheat.
 - Canada has absolute advantage in wheat, Nicaragua has absolute advantage in bananas.
 - *Mutually beneficial trade* can take place if both countries specialize in their absolute advantage.

The slide includes handwritten red annotations: a circle around 'wheat' in the first point, a circle around 'bananas' in the second point, and a circle around 'wheat' in the third point. A red arrow points from the first point to the second point.

For example Canada is efficient in you know growing wheat and inefficient in growing bananas. So, these are disadvantage to disadvantage in the product banana; whereas the advantage in terms of cost for wheat. So, Canada must specialize in the production of wheat.

Similarly Nicaragua is efficient in growing bananas and inefficient in growing wheat. So, therefore, between these two countries there must be trade; one will be specialized in wheat and another is specialized in bananas. Canada has absolute advantage in wheat as I just said and Nicaragua has absolute advantage in banana. So, mutual beneficial trade can take place, if both countries specialize in absolute advantage.


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**Trade Based on Absolute Advantage:
Adam Smith**

- Specialization and trade advantage both countries.
- Adam Smith and other classical economists advocated policy of **laissez-faire**, or minimal government interference with economic activity.
- Free trade would cause world resources to be utilized most efficiently, maximizing world welfare.

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So, specialization in trade advantage for both the countries and the views are largely based on laissez faire; therefore, there is no government intervention and the specialization is possible. So, they will utilize at the best manner they came.

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Trade Based on Absolute Advantage: Adam Smith

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

Handwritten notes:
 $6W \rightarrow 1C$
 $1W = \frac{1}{6}C$
 $1W = \frac{1}{5}C$
 $2 \times 2 \times 1$
 $US \rightarrow W$
 $India \rightarrow C$
 Mutual Trade
 $4C \leq 6W \leq 3C$

- U.S. has absolute advantage over India in wheat.
- India has absolute advantage over U.S. in cloth.
- Both nations can gain from specialization in production and trade.

And now in order to check very carefully of the absolute advantage; let us assume there are two countries US and India, how they are going to trade and how what is trade and what are the direction of trade, what production they are going to produce specialize and how much benefits they will derive out of trade we must actually try to understand very clearly.

Now, wheat, let us interpret that I mean that there are 2 by 2; 2 countries, 2 products or 2 goods and 1 factor, here 1 factor is labor. Now, wheat is expressed your as bushels for labor hour; that means, here we express the wheat here as productivity. Similarly cloth yards per labor hour how much labor hour; how much yards can be produce per unit of labor hour.

So, 6, 4, 1, 5 these are the productivities in two countries. So, therefore, straight away if you just try to count 6 units of bushels of wheat or 6 unit of wheat can be produced in US; as

against only one unit of wheat can be produced in India. So, therefore, US has absolute advantage in terms of production.

Now, if you compare cloth 4 units of cloth or 4 yards of cloth at maximum by utilizing the resources in US is possible; whereas India has advantage in producing more than that of US. So, therefore, in US will specialize in the production of you know wheat; whereas India will specialize in the production of cloth and there will be mutual you know mutual trade possible. So, this is purely based on absolute cost advantage; here we are explaining in terms of absolute productivity advantage.

Now, these things can be also expressed in terms of cost. So, per unit cost how we can do it? Per unit of labor, how much output can be produced? So, this is productivity; if you express in terms of per unit of wheat how much labor is required, how much labor units or labor hours are required to produce per unit of wheat. So, it will be simply; that means, 6 units of wheat's are produce by 1 unit of labor. So, 1 unit of wheat can be produced by one sixth of labor.

So, one sixth of labor can able to produce 1 unit of wheat in US; whereas, 1 is to 1 in India, this is India. So, therefore, it is very expensive to produce wheat in India so far as cost advantage is concerned. Now, these are if I we can express one sixth, then 1 upon 1, 1; then one fourth, one fifth we can compare the cost as well. Now based on this logic US has absolute advantage over India in wheat which have already said. And India has absolute advantage over US in cloth.

So, therefore, both nation can gain from their specialization. And how what kind of gain? Because you know if one will be producing more that country will export to another country and in live another country will get the rest from other country. So that means, US will export we know 6 units to India and in India and India can able to export more than that of what US can able to produce.

So, therefore, the absolute cost difference results in deriving more benefit. So, therefore, trade is possible. In this context what I wanted to say that, 6 units process you know 5 units. So,

now, what is the mutual you know, mutual trade possible. Now how much at maximum you know maximum mutual trade; for example, to I mean at maximum US exports from US, I mean US exports from India at least 4 units of cloth, ok.

So, I am now just explaining mutual benefits after trade or the minimum expectation from other countries; how a country is expecting from another country as the minimum one. So, in order to have trade, you need to have trade, US expect that 4 units of cloth must be actually imported or must be received from India. So, 4 units of cloth actually received by US from India has a minimum requirement at least; then in live if 4 units are received, if 4 units of cloth are received by US, then you know how much for that how much amount of wheat US is ready to export that is 6 units, ok.

So, 6 units of wheat US is ready to export, because US has received 4 units of cloth. Now if 6 unit are actually exported to India. Now, India in order to produce 6 units of you know wheat India can save 6 labor units, because one of labor can get maximum produce one unit of wheat. So, since 6 units are received, 6 units of wheat are received to India. So, India can save 6 units of labor or 6 hours of labor. If that 6 hours of labors are actually used for the production of cloth, so 1 unit of labor all can produce 5.

So, 6 units of labor can produce 6 into 5 that is 30. So, 30 units of cloth can be produced in India with the trade. So, therefore, mutual beneficial trade is presented in this box, $4C$ is at least less than equal to $6W$ is less than equal to 30 units of cloth. So, both the countries will be actually benefiting their trade with their interaction. So, these are all how Adam Smith explained absolute cost advantage, we can interpret in various other ways as well.

So, in the next class we will carry forward with relative cost advantage, with production possibility frontier, we will also explain mutual beneficial trade in the range of trade; this is also called range of trade which we have just explain. And you know accordingly you can on you know criticize Adam Smith theory in detail. Now, we will carry forward to the next class, with this let me close here; we will discuss rest of things in detail in next class.

Thank you.