



# Classical Theories of International Trade

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## Lecture 3



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## Evolution of Trade Theories

- Mercantilism
- **Absolute Advantage**
- Comparative Advantage
- Factor proportion Trade
- International Product Cycle
- New Trade Theory
- National Competitive Advantage



## Lecture 3

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“If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the product of our own industry, employed in a way in which we have some advantage”

*Wealth of Nations, Adam Smith*



# Adam Smith and the Attack on Mercantilism and Economic Nationalism

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- In 1776, **Adam Smith** published the first modern statement of economic theory, *An Inquiry into the Nature and Causes of the Wealth of Nations*
  - *The Wealth of Nations* attacked **mercantilism**—the system of which dominated economic thought in the 1700s
  - Smith proved wrong the belief that trade was a **zero sum game**—that the gain of one nation from trade was the loss of another
  - On the other hand... Voluntary exchange (trade) is a **positive sum game** —both nations can gain

# Theory of absolute advantage

- Adam Smith ideas based on...
  - The capability of one country to produce more of a product with the same amount of input than another country
  - *(same thing)* The ability of a country to produce a good using fewer resources than another country (lower opportunity cost)



# Theory of absolute advantage

- Adam Smith argued:
  - A country should produce only goods where it is most efficient .... and trade for those goods where it is not efficient
- Trade between countries is, therefore, beneficial





# Theory of absolute advantage

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- ... destroys the mercantilist idea since there are gains to be had by **both** countries party to an exchange
- ... questions the objective of national governments to acquire “wealth”: through restrictive trade policies
- ... also measures a nation’s wealth by the living standards of its people



# TRADE BASED ON ABSOLUTE ADVANTAGE

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- Consider this “simple” example involving the EU and India
- Only two products are produced, **machines** and **cloth**
- **Labor** is fixed, homogeneous within a country, the only factor of production, and is fully utilized
- Technology and production costs are **constant**
- Transportation costs are zero and the countries barter (trade) for goods





# TRADE BASED ON ABSOLUTE ADVANTAGE

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<b>One Person Per Day of Labor Produces</b>		
<b>Country</b>	<b>Machines</b>	<b>Cloth</b>
<b>EU</b>	<b>5 machines</b>	<b>10 yards of cloth</b>
<b>India</b>	<b>2 machines</b>	<b>15 yards of cloth</b>

# THE PRODUCTION POSSIBILITIES FRONTIER AND CONSTANT COSTS

- The ***Production Possibilities Frontier (PPF)*** is a curve showing the various combinations of two goods that a country can produce when all of a country's resources are fully employed and used in

Country	One Person Per Day of Labor Produces	
	Machines	Cloth
EU	5 machines	10 yards of cloth
India	2 machines	15 yards of cloth

One Person Per Day of Labor Produces		
Country	Machines	Cloth
EU	5 machines	10 yards of cloth
India	2 machines	15 yards of cloth

Production Possibilities Curves for the United States and India



<u>India</u>	
<u>Cloth</u>	<u>Mach</u>
15	0
7.5	1
0	2

<u>EU</u>	
<u>Cloth</u>	<u>Mach</u>
10	0
8	1
6	2
4	3
2	4
0	5

“Opportunity Cost” also known as “Relative Price”

### India - Opportunity Costs

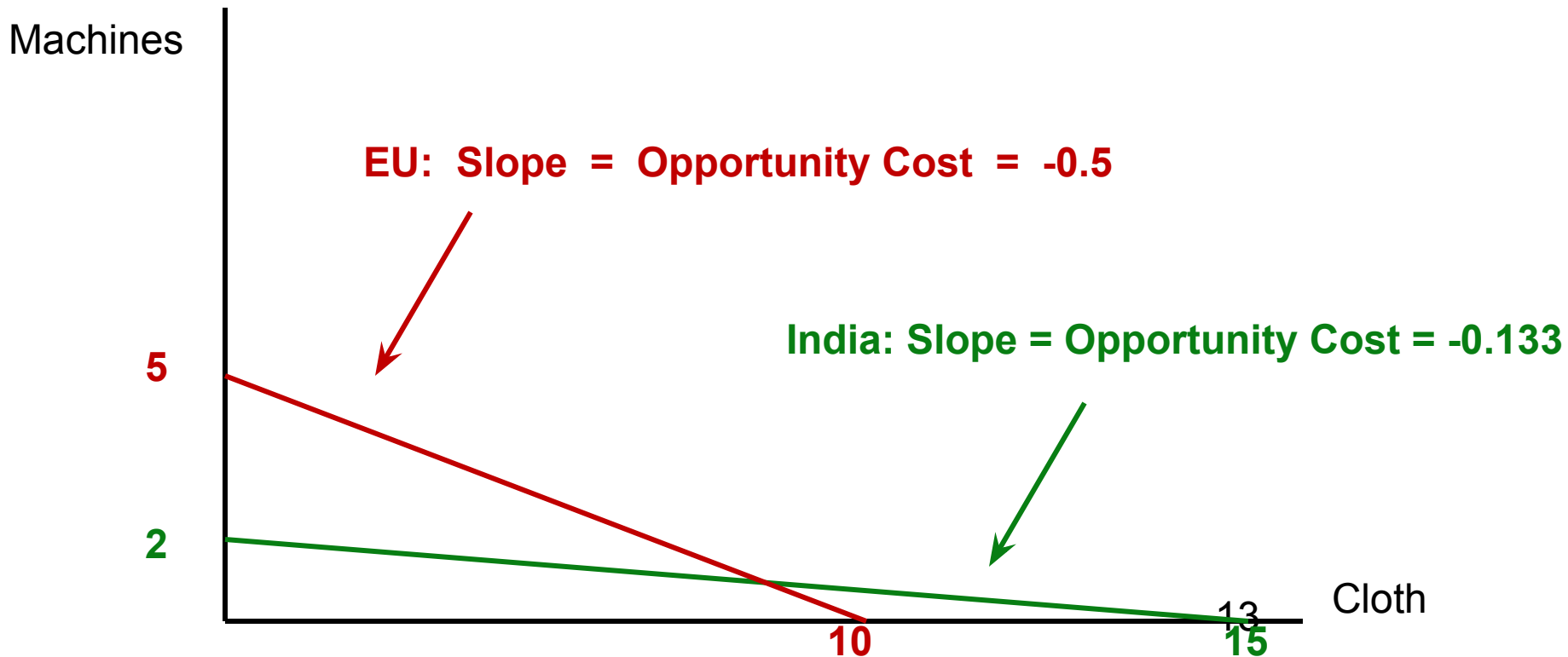
Machine = 7.5 cloth  
 Cloth = 0.133 machine

### EU - Opportunity Costs

Machine = 2 cloth  
 Cloth = 0.5 machine

# What Determines the Slope of the PPC?

**Slope =  $\Delta\text{Machines}/\Delta\text{Cloth}$  = Opportunity Cost of Machines**






## **Absolute Advantage:** Production Conditions When Each Country Is More Efficient in the Production of One Commodity

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- EU workers are more productive in producing machines
- The EU has an **absolute advantage** in machine production
  
- Indian workers are more productive in producing cloth
- India has an **absolute advantage** in cloth production

# TRADE BASED ON ABSOLUTE ADVANTAGE ...



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Country	One Person Per Day of Labor Produces	
	Machines	Cloth
EU	<b>5 machines</b>	10 yards of cloth
India	2 machines	<b>15 yards of cloth</b>

# What ???

## Theory of absolute advantage

- Adam Smith: Wealth of Nations (*again*) argued:
  - A country should produce only goods where it is most efficient, and trade for those goods where it is not efficient





Assume TWO Persons per day, so that each product can be fully produced

<u>Two</u> Persons Per Day of Labor Produces			
Country	Machines		Cloth
EU	5 machines	(and)	10 yards of cloth
India	2 machines	(and)	15 yards of cloth
<b>World Output</b>	<b>7 machines</b>	(and)	<b>25 yards of cloth</b>

This is a condition under **Autarky**: (*The complete absence of trade*)

- Under Autarky all nations can only consume the goods they produce at home

Assume TWO Persons per day, so that each product can be fully produced

<u>Two</u> Persons Per Day of Labor Produces			
Country	Machines		Cloth
EU	5 machines	(and)	10 yards of cloth
India	2 machines	(and)	15 yards of cloth
<b>World Output</b>	<b>7 machines</b>	(and)	<b>25 yards of cloth</b>

However, if each country produces to their absolute advantage ...below...

<u>Two</u> Persons Per Day of Labor Produces			
Country	Machines		Cloth
EU	10 machines		0 yards of cloth
India	0 machines		30 yards of cloth
<b>World Output</b>	<b>10 machines</b>	(and)	<b>30 yards of cloth</b>



# TRADE BASED ON ABSOLUTE ADVANTAGE

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So there has obviously been an increase in World Output!!

Country	Change in the Production of	
	Machines	Cloth
EU	+5 machines	-10 yards of cloth
India	-2 machines	+15 yards of cloth
<b>Change in World Output</b>	<b>+3 machines</b>	<b>+5 yards of cloth</b>



# TRADE BASED ON ABSOLUTE ADVANTAGE

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- **Both countries can benefit if trade occurs**
  - **EU produces machines and exports them to India**
  - **India produces cloth and exports it to the EU**

Two Persons Per Day of Labor Produces

Country	Machines		Cloth
EU	5 machines	(and)	10 yards of cloth
India	2 machines	(and)	15 yards of cloth
<b>World Output</b>	<b>7 machines</b>	<b>(and)</b>	<b>25 yards of cloth</b>

Two Persons Per Day of Labor Produces

Country	Machines		Cloth
EU	10 machines		0 yards of cloth
India	0 machines		30 yards of cloth
<b>World Output</b>	<b>10 machines</b>	<b>(and)</b>	<b>30 yards of cloth</b>

Now, suppose that the EU trades ... 3 machines to India ... for 12 yards of cloth?



# Introduction: The Gains from Trade

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- The improvement in national welfare (for both countries) is known as the **gains from trade**

# One more quick example, just to be sure....

## Output per Hour Worked

	Output/hour worked	
	EU	Canada
Bread	2 loaves	3 loaves
Steel	3 tons	1 ton

**What are the EU's relative prices (*opp. cost*) ... Bread? Steel?**

**What are Canada's relative prices (*opp. cost*) ... Bread? Steel?**

**Who has absolute advantage in Bread?**

**Who has absolute advantage in Steel?**

**Given 2 working hours per country... what is the maximum world output?**

# Implications of Adam Smith's Theory



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- Access to foreign markets helps create wealth
  - If no nation imports, every company will be limited by the size of its home country market
  - Imports enable a country to obtain goods that it cannot make itself or can make only at very high costs
  - **Trade barriers** decrease the size of the potential market, hampering the prospects of specialization, technological progress, mutually beneficial exchange, and, ultimately, wealth creation





# Adam Smith and Trade Barriers

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- Smith was highly critical of **trade barriers** (*Tariffs, Quotas, Subsidies...*)
- Trade barriers decrease
  - Specialization
  - Technological progress
  - Wealth creation
- The modern view of trade shares Smith's dislike for trade barriers



# TRADE BASED ON **ABSOLUTE ADVANTAGE**

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- Labor Theory of Value
  - Assumes that labor is the only *relevant* factor of production
  - This implies that the pre-trade price of a good is determined by the amount of labor it took to produce it.

# Absolute Advantage: *Saudi Oil*

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# Absolute Advantage: *Brazilian Coffee Beans*



# Absolute Advantage: *Canadian Timber*

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## 2-Country Scenario

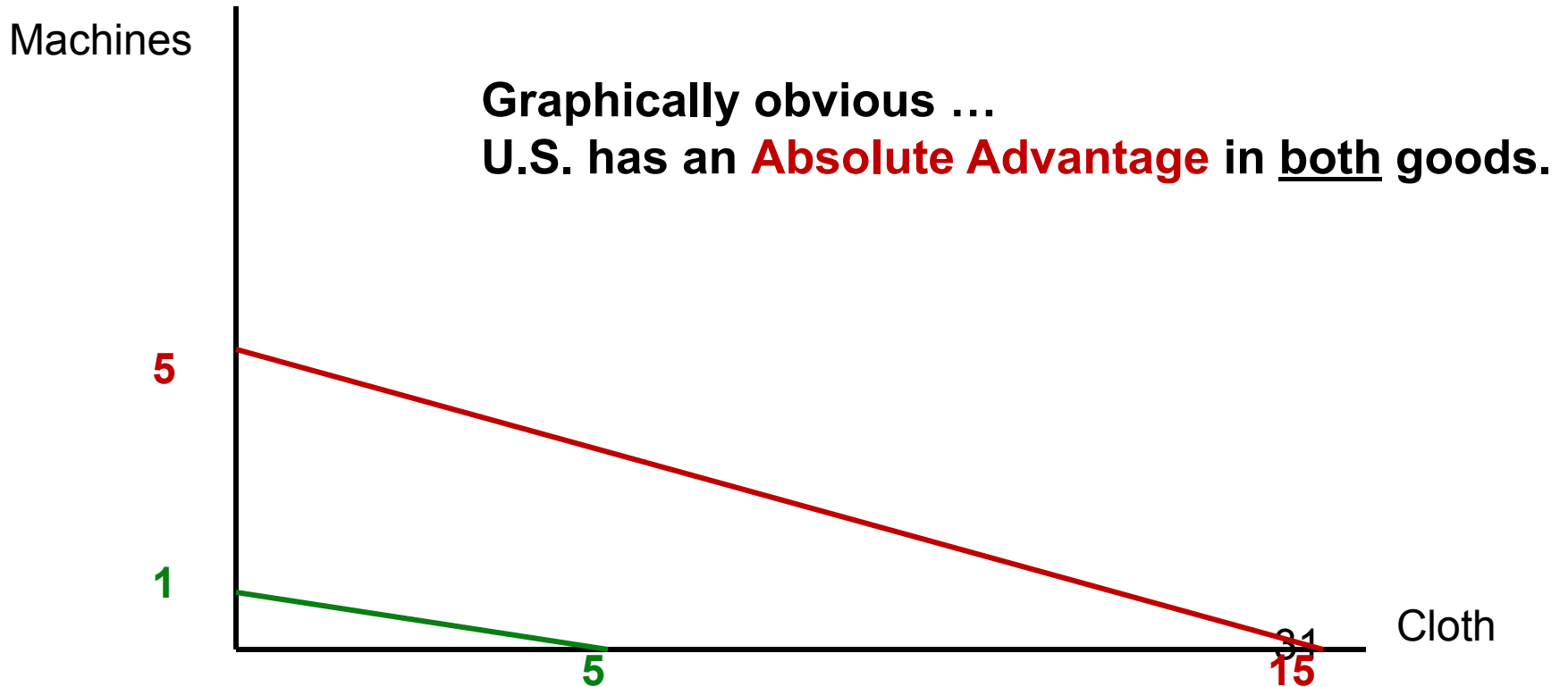
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One Person Per Day of Labor Produces		
Country	Machines	Cloth
U.S.	5 machines	15 yards of cloth
India	1 machine	5 yards of cloth

U.S. has an **Absolute Advantage** in both goods.

One Person Per Day of Labor Produces		
Country	Machines	Cloth
U.S.	5 machines	15 yards of cloth
India	1 machine	5 yards of cloth

Production Possibilities Curves for the **United States** and **India**



# One country has Absolute Advantage in BOTH goods

Country	One Person Per Day of Labor Produces	
	Machines	Cloth
U.S.	5 machines	15 yards of cloth
India	1 machine	5 yards of cloth

- In this scenario, there is obviously no opportunity to trade... especially not for U.S.
- **NO... No ... No!!!** This is not correct. We need to introduce the concept of:

**Comparative Advantage** → **Next lecture**





# Task

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- Think of counties that have an absolute advantage in production of one particular good – the more the better
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