Interdependence

Trade can make
everyone
better off.

Specialization and Trade

Is Trade Necessary?

1

1

Trade Can Make Everyone Better Off

- People/countries can _____ good or service and _____ for other goods.

Specialization and Trade

2

2

Our Example…(Assumptions!)

Two Countries:

Two goods:

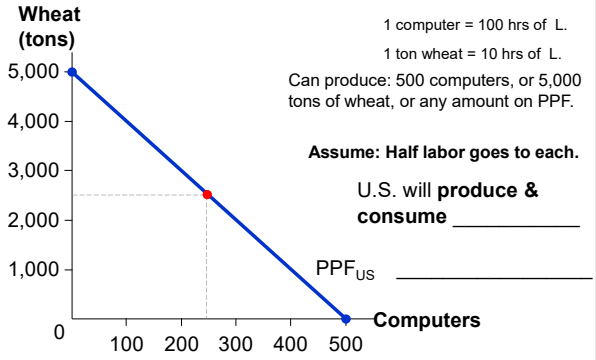
One Resource:

Caveat: Other PPF assumptions!

3

3

U.S. PPF – Without Trade



1 computer = 100 hrs of L.

1 ton wheat = 10 hrs of L.

Can produce: 500 computers, or 5,000 tons of wheat, or any amount on PPF.

Assume: Half labor goes to each.

U.S. will **produce & consume** _____

PPF_{US} _____

4

4

Your Turn….
Derive (draw!) Japan's PPF

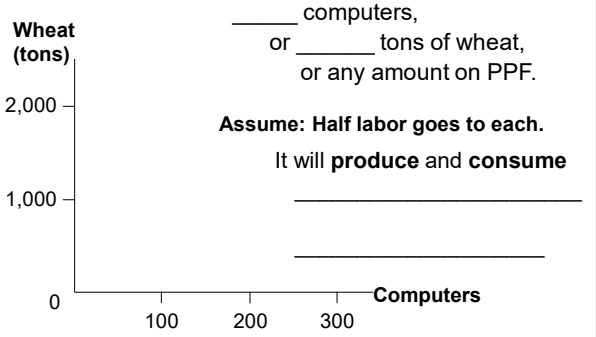
Assume:

- Japan - 30,000 hours of labor available for production, per month.
- 1 computer = 125 hours of labor.
- 1 ton of wheat = 25 hours of labor.
- Half of labor goes to the production of each good.

clq 5

5

Japan's PPF – Without Trade



_____ computers,
or _____ tons of wheat,
or any amount on PPF.

Assume: Half labor goes to each.

It will **produce** and **consume**

_____

_____

6

6

World Consumption Without Trade

- Without trade,
  consumption = production:

U.S.

_____ computers

_____ tons wheat

Japan

_____ computers

_____ tons wheat

7

7

International Trade

- _____: goods produced domestically and sold _____
- _____: goods produced abroad and sold domestically

8

8

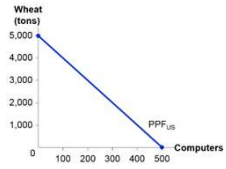
Enter… Specialization and Trade!

 for 

1. Assume: U.S. allocates labor to produce 3400 tons of W. Identify the **production** point. (# C?)

Recall: 50,000 L ; 1C = 100 L ; 1W = 10 L

Then… U.S. exports 700 W to Japan in exchange for 110 C.

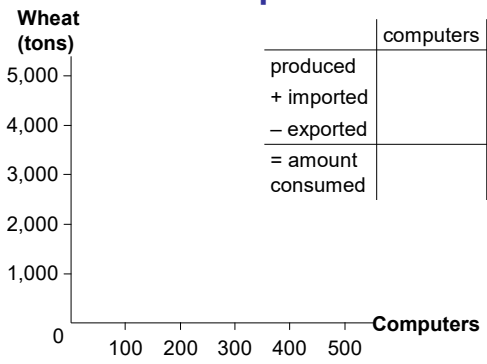


	computers	wheat
produced	?	3400
+ imported		
– exported		
= amount consumed		

9

9

U.S. Consumption With Trade



	computers	wheat
produced		
+ imported		
– exported		
= amount consumed		

10

10

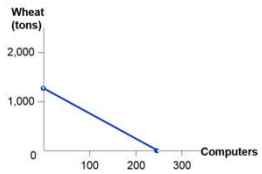
Enter… Specialization and Trade!

 for 

2. Assume: Japan now produces 240 C. Identify the **production** point. (# W?)

Recall: 30,000 L ; 1C = 125 L ; 1W = 25 L

Then… U.S. exports 700 W to Japan in exchange for 110 C.

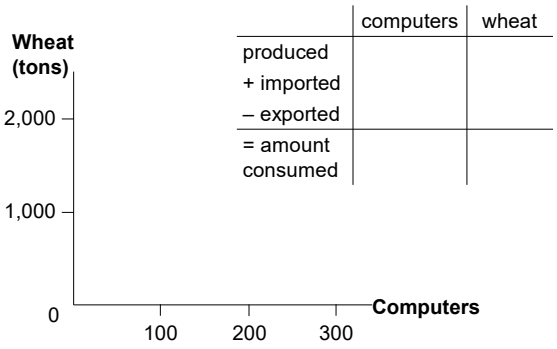


	computers	wheat
produced	240	?
+ imported		
– exported		
= amount consumed		

11

11

Japan's Consumption With Trade



	computers	wheat
produced		
+ imported		
– exported		
= amount consumed		

12

12

Trade Makes Both Countries Better Off

U.S.			
	consumption without trade	consumption with trade	gains from trade
computers			
wheat			
Japan			
	consumption without trade	consumption with trade	gains from trade
computers			
wheat			

13

13

Where Do These Gains Come From?

- _____: the ability to produce a good using _____ inputs than another producer (individual or country)
- U.S … absolute advantage in wheat, i.e.:
  - U.S.: ____ ton wheat = ____ labor hrs
    Japan: ____ ton wheat = ____ labor hrs
- Absolute advantage can lead to specializing and gains from trade.

14

14

Where Do These Gains Come From?

- Which country has an absolute advantage in computers?
- Japan: 1 computer = 125 labor hrs
  U.S.: 1 computer = 100 labor hrs

So why does Japan specialize in computers? Why do both countries gain from trade?

15

15

Two Measures of the Cost of a Good

- Absolute advantage measures the cost in inputs required.
- Another way to view cost…

_____

- _____ of a computer = wheat that _____using the same labor

16

16

Opportunity Cost and Comparative Advantage

- The opp. cost of 1 computer is
  - 10 tons of wheat in the U.S.
    (1 comp = 100 labor hrs = ___ tons of wheat)
  - 5 tons of wheat in Japan
    (1 comp = 125 labor hrs = ___ tons of wheat)
- _____: the ability to produce a good ***at a*** _____ than another producer

17

17

Opportunity Cost and Comparative Advantage

- The opp. cost of 1 computer is
  - 10 tons of wheat in the U.S.
    (1 comp = 100 labor hrs = ___ tons of wheat)
  - 5 tons of wheat in Japan
    (1 comp = 125 labor hrs = ___ tons of wheat)
- So, Japan has a comparative advantage in computers. *Lesson: _____ is not necessary for _____ advantage!*

18

18

Absolute & Comparative Advantage

Peru and Guatemala each have 100 hours of labor per month, and the following technologies:

Peru
- » producing one pound coffee requires 2 hours
- » producing one bottle wine requires 4 hours

Guatemala
- » producing one pound coffee requires 1 hour
- » producing one bottle wine requires 5 hours

1) Absolute advantage?
2) Comparative advantage in wine?

19

19

Absolute & Comparative Advantage
Interpreting the Information

1.

Peru
- » producing one pound coffee requires 2 hours
- » producing one bottle wine requires 4 hours

Guatemala
- » producing one pound coffee requires 1 hour
- » producing one bottle wine requires 5 hours

(100 hours of labor per month)

2.

OUTPUT PER MONTH

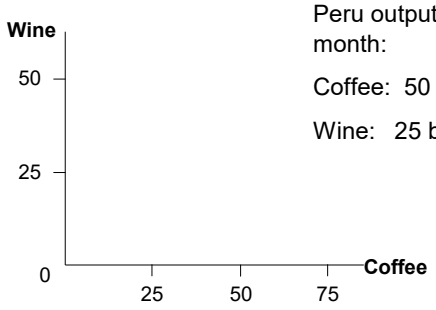
	Coffee	Wine
Peru	50 lbs.	25 btls.
Guatemala	100 lbs.	20 btls.

20

20

Absolute & Comparative Advantage
Interpreting the Information

3.



Peru output per month:

Coffee: 50 lbs

Wine: 25 btls

21

21

Points to Ponder…

Can policy change comparative advantage?

What about the "content" of imports and exports?

Are there times a country doesn't want to specialize and trade?

22

22

Points to Ponder…

- Assumptions…quantities the countries produce, trade, and consume, and the prices.
- But…*trade can make everyone (collectively) better off.* *(It can make _____ worse off…)*

23

23