



# Some Basic Economic Tools

**Opportunity Cost  
Exchange**

**Private Property**

**Production Possibilities Frontier**

**Gains from Trade**



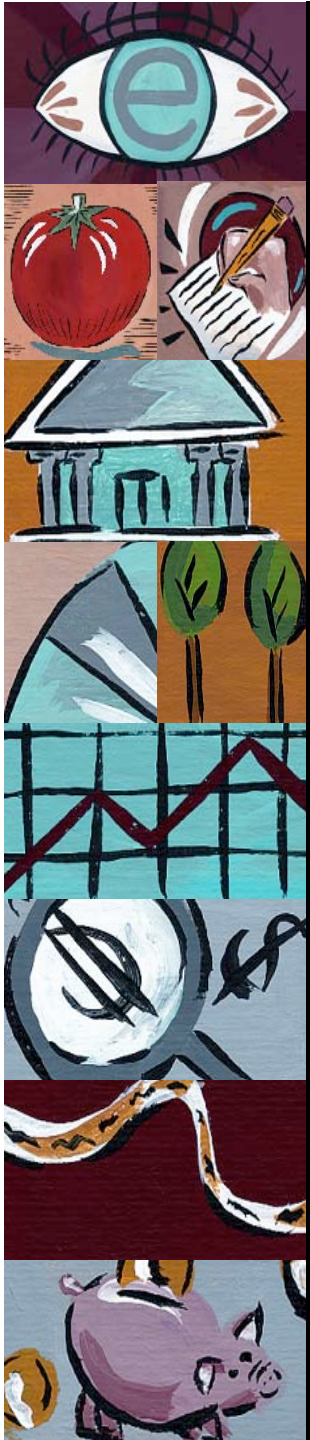
# Opportunity Cost

- ***Opportunity cost:***  
The highest valued activity sacrificed in making a choice.
  - Opportunity costs are subjective and vary across individuals.
- The ***opportunity cost*** of college:
  - Monetary cost: tuition, books.
  - Non-monetary cost: forgone earnings.
  - If opportunity cost of college rises (*e.g. tuition rises*), then one will be less likely to attend college.

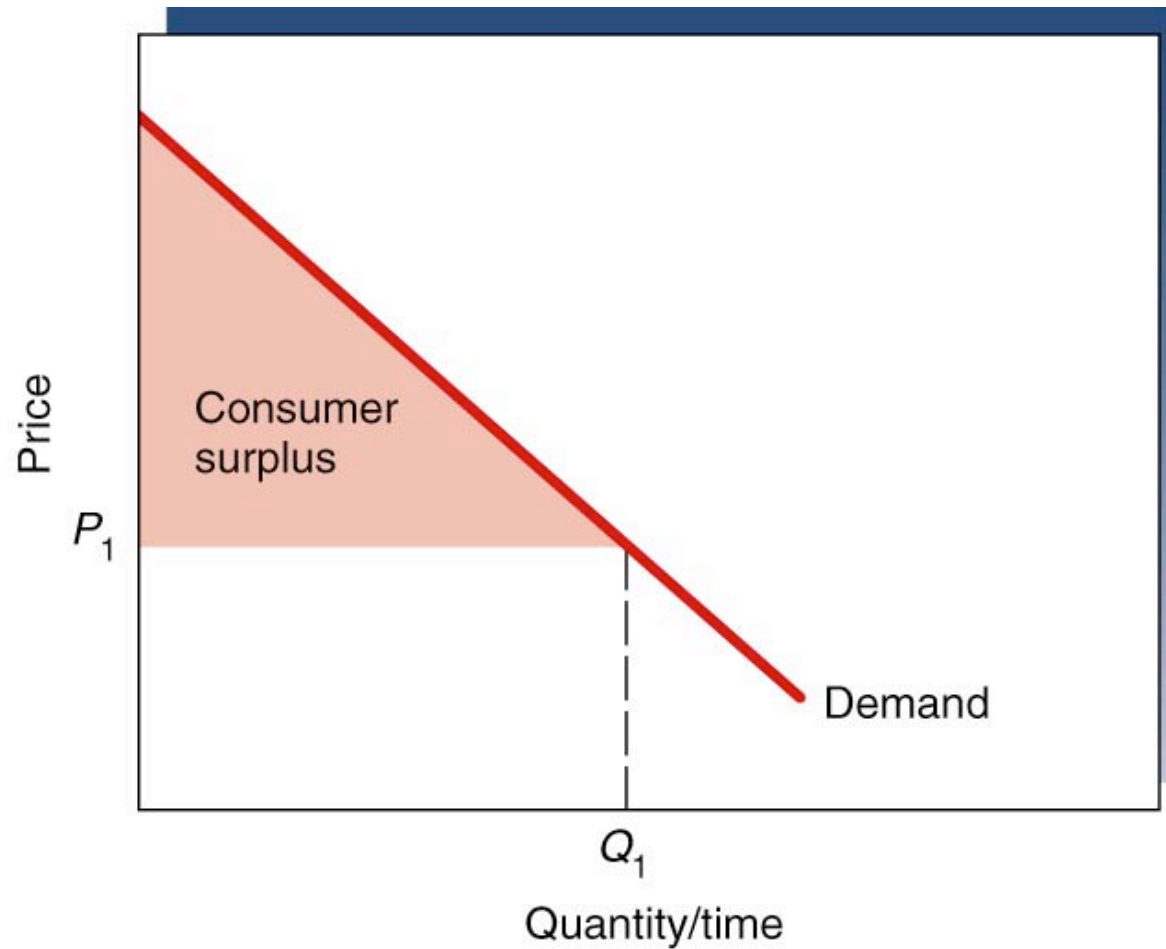


# Measuring Value Added

- Willingness and ability to pay
- Willingness and ability to sell

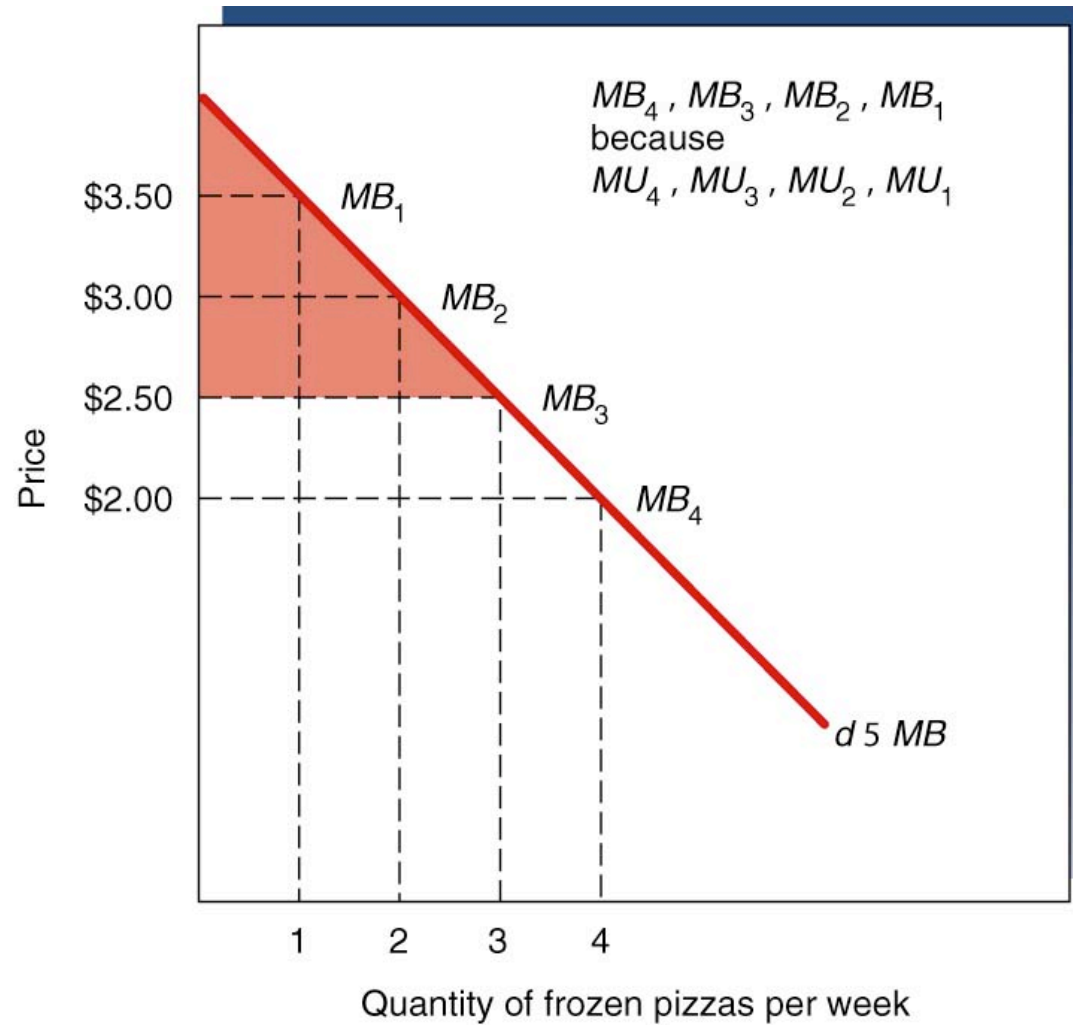


# Demand & Consumers' Surplus





# Measuring Consumer Surplus



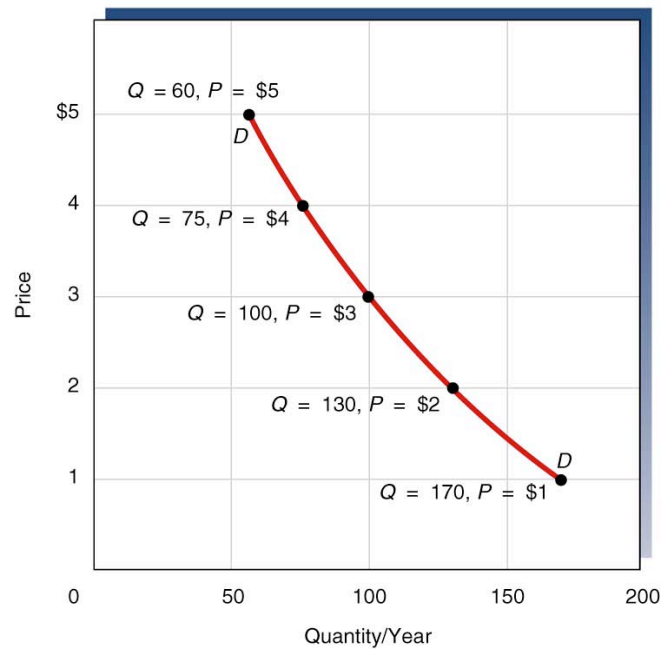


# Real Demand Schedule

AMOUNT OF WHEAT DEMANDED BY  
CONSUMERS PER YEAR  
(MILLIONS OF BUSHEL)

PRICE	
\$1	170
2	130
3	100
4	75
5	60

(a)



(b)



# Trade

- Mutual gain is the foundation of trade.
  - *Value* can be created by *exchanges* that move goods to individuals who value them more.
- *Transactions costs*:  
the time, effort, and other resources needed to search out, negotiate, and consummate an exchange.
  - Transactions costs reduce our ability to produce gains from potential trades.



# Trade

- How does the Internet reduce transactions costs?
  - eBay
  - E-trade
  - [Amazon.com](http://Amazon.com)
- *Middleman:*  
A person who buys and sells, or arranges trades.
  - Middlemen reduce transactions costs.



## Questions for Thought:

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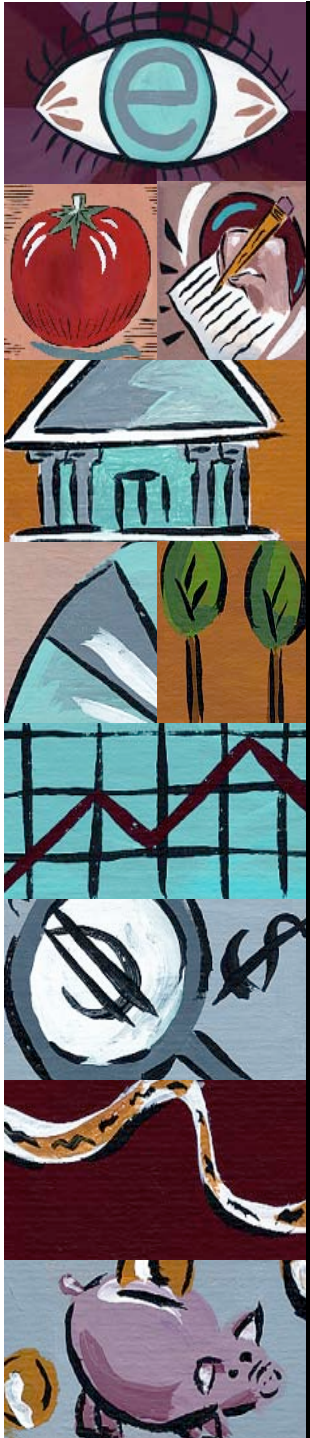
1. It takes 3 hrs. to travel from New York City to D.C. by air, but it takes 7 hrs. by bus. If the air fare is \$110 and the bus fare is \$70, which is cheaper for someone whose opportunity cost of travel time is \$6 per hour? For someone whose opportunity cost is \$10 per hour? \$14 per hour?
2. Consider the choices of women aged 30 to 50 years with (a) a college education and (b) less than a high school education. Which of the two will have the larger percent in the work force? Which will have the larger average number of children? Why?



## Questions for Thought:

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3. In many states, the resale of tickets to sporting events at prices above the original purchase price (“ticket scalping”) is prohibited. Is this a good idea? Who is hurt and who is helped by the prohibition?



# The Importance of Property Rights



# Private Property Rights

- *Property rights*: Rights to use, control, and obtain benefits from a good or service.
- *Private property rights* involve:
  - the right to exclusive use
  - legal protection against invaders.
  - the right to transfer to another.



# Private Property and Incentives

- Private owners can gain by using their resources in ways that are beneficial to others.
- A private owner has a strong incentive to care for and manage what he or she owns.
- The private owner has an incentive to conserve for the future if the property's value is expected to rise.
- With private property rights, the private owner is accountable for damage to others through misuse of the property.
  - Private ownership links responsibility with the right of control.



# Private Property and Markets

- When private property rights are protected and enforced, permission of the owner is required for use of a resource.
  - If you want to use a good or resource, you must either buy or lease it from the owner.
  - Individuals are faced with the cost of using scarce resources.
- Market prices provide a strong incentive for private owners to consider the desires of others and to use and develop resources that are highly valued by others.



## Questions for Thought:

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1. Selling your organs is a violation of federal law, a felony punishable by up to five years in prison or a \$50,000 fine. Because of this, in September 1999 eBay intervened when a person put one of his kidneys up for sale on eBay (the bidding reached \$5.7 million before it was pulled). Is the United States a better place to live because such transactions are prohibited? Why or why not?
2. Does a 60 year old tree farmer have an incentive to plant and care for Douglas fir trees that will not reach optimal cutting size for 50 years?



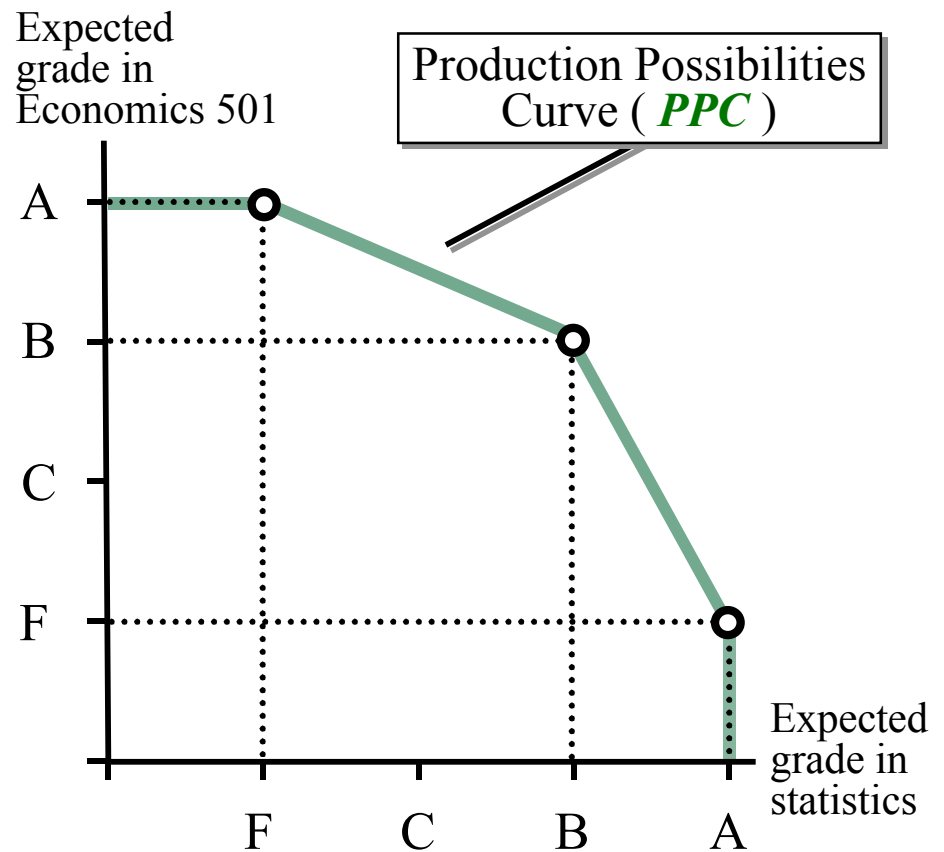
# Production Possibilities Curve



# Production Possibilities Curve

for Susan's grades in Statistics and Economics (10 hrs of study)

- Susan is a student who only has 10 hours of study to divide between her *economics* and *statistics* classes.
- If she spends most of her time studying economics, she can earn an *A* in economics ... and a *F* in her statistics class.
- If she splits her time between the two, she can earn a *B* in economics ... and a *B* in her statistics class.
- If she spends most of her time studying statistics, she can earn a *F* in economics ... and an *A* in her statistics class.
- Mapping out all the possibilities of how Susan can divide her time (limited resources) between these activities shows us her **Production Possibilities Curve (PPC)**.

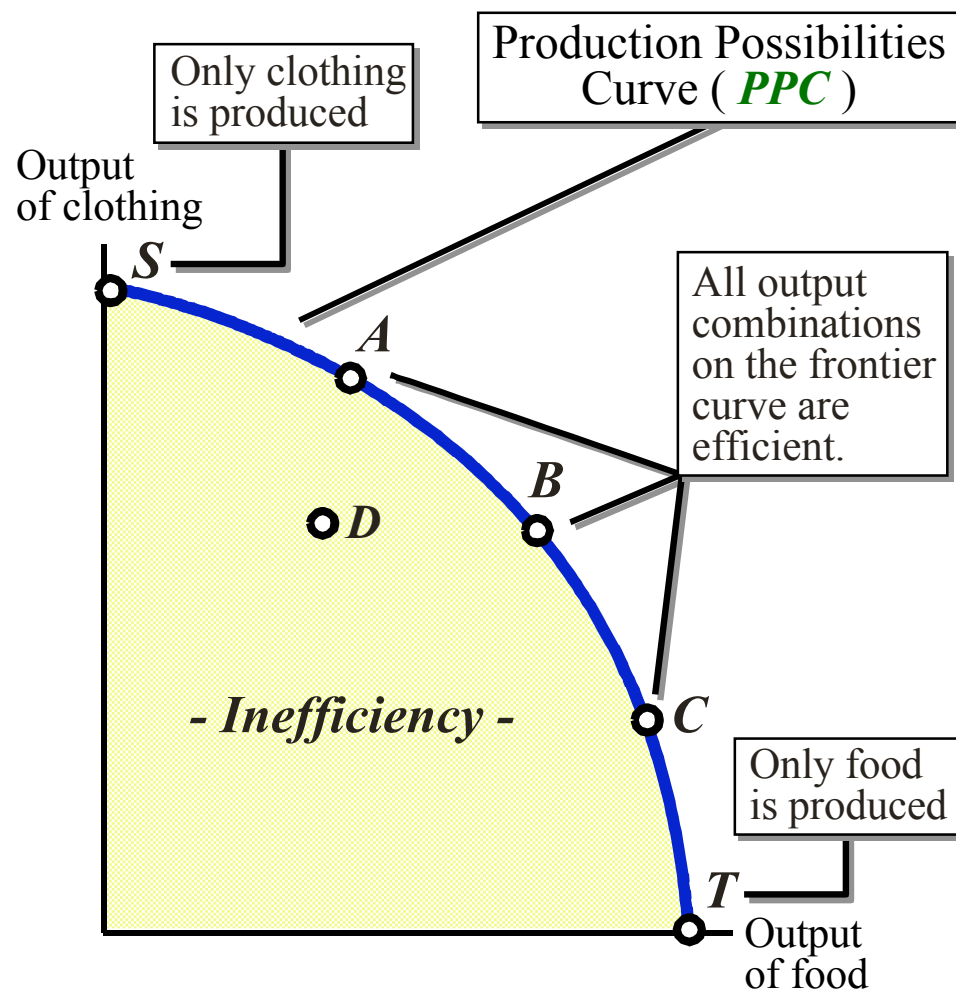


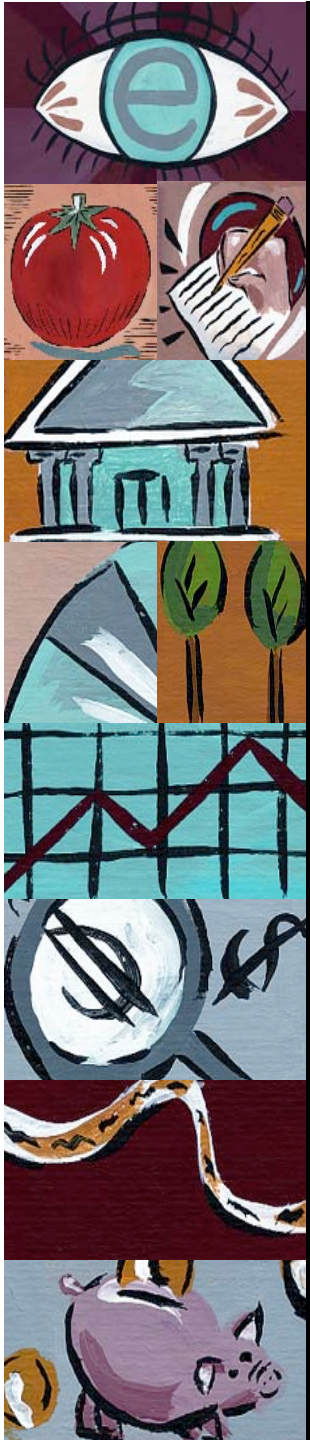


# Production Possibilities Curve

*for a nation's economy (given limited resources)*

- Consider an economy which has limited resources to divide between the production of clothing and food.
- If it allocates all of its resources toward the production of clothing, then it can produce at point *S*.
- If the it allocates all of its resources toward the production of food, then it can produce at point *T*.
- Mapping out all the possibilities of how an economy can divide the use its resources gives us the economy's **Production Possibilities Curve**.
- Output combinations *A*, *B*, & *C* are all on the **PPC** and are, therefore, technically **efficient** uses of resources.
- *D* is within the **PPC** and represents an **inefficient** resource allocation. Combination *B* delivers more food with the same output of clothing.



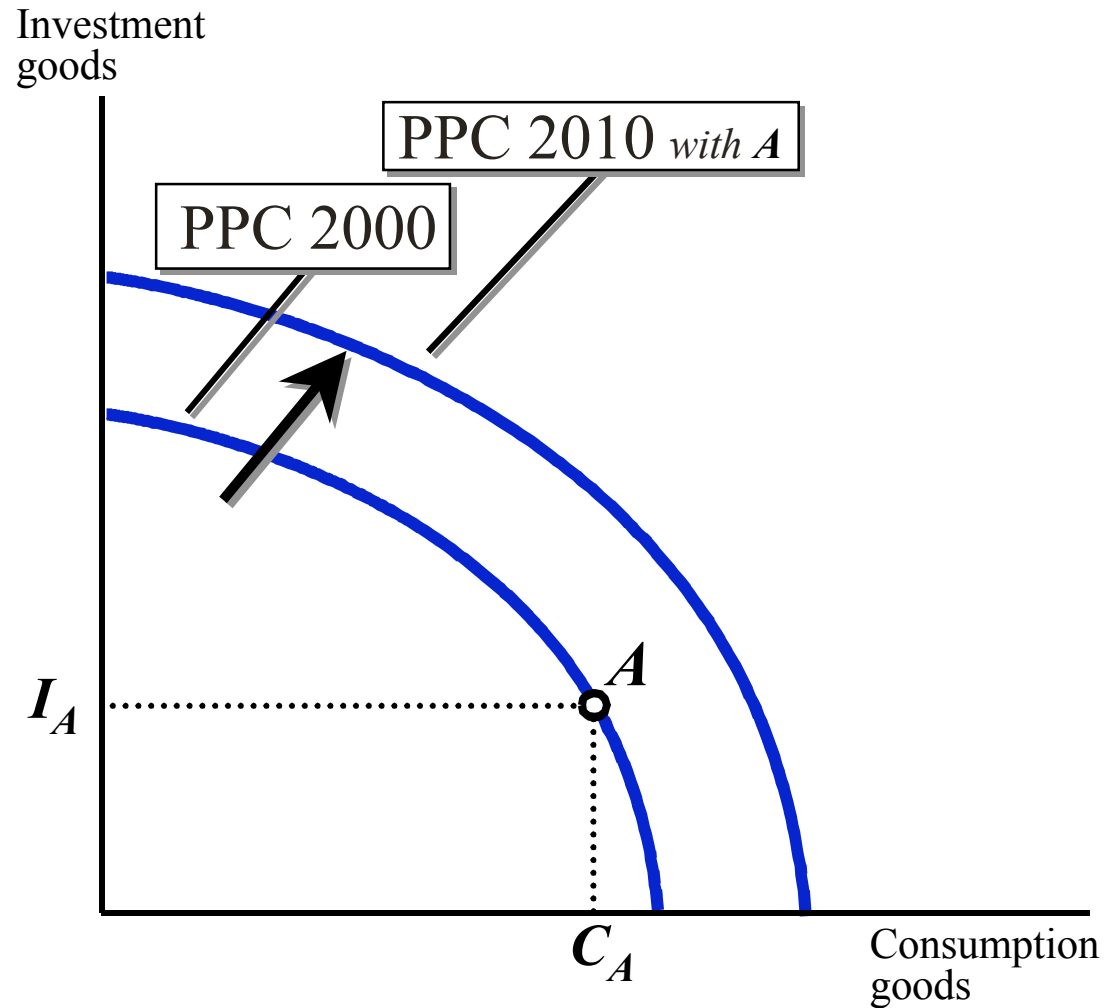


# Shifting the Production Possibilities Curve Outward

- An *increase* in the economy's *resource base* would expand our ability to produce goods and services.
- *Advancements in technology* can expand the economy's production possibilities.
- An *improvement in the rules* (laws, institutions, and policies) of the economy can increase output.
- By working harder and *giving up current leisure*, we could increase our production of goods and services
  - This requires us to give up something else we value: leisure.

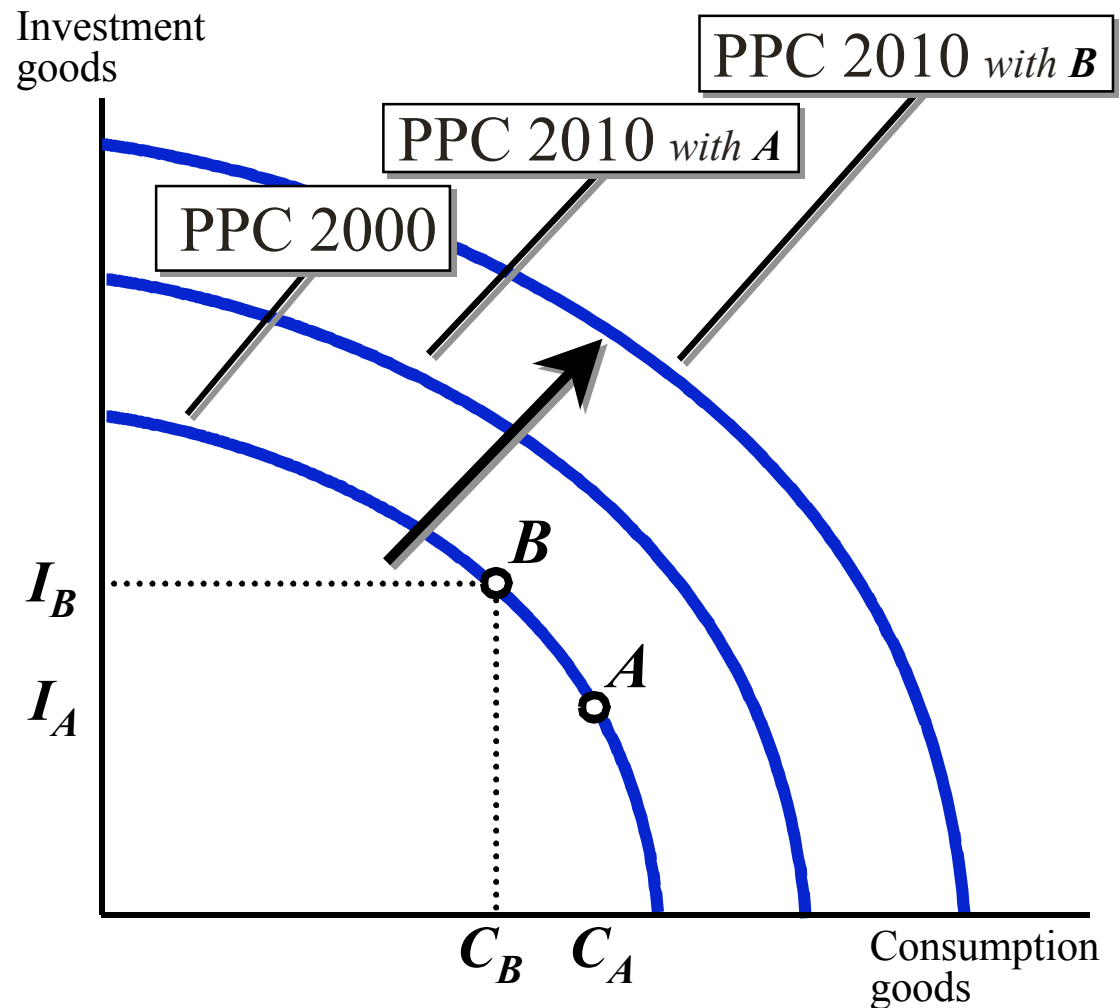
# Investment and Production Possibilities in the Future

- The long-term benefits of investment include greater output in the future. Thus, decisions we make today regarding how much to save (*investment*) and consume determine the shape of the *PPC* 10 years from now.
- If we choose to produce a mixture of consumption and investment goods which corresponds to bundle *A* ... then the future *PPC* might move out to *PPC 2010 with A* – due to the new buildings, equipment, training, and other forms of investment goods that  $I_A$  represents.



# Investment and Production Possibilities in the Future

- If we choose to produce a mixture of consumption and investment goods which corresponds to bundle  $B$ , with fewer consumption goods ( $C_B < C_A$ ) and more investment ( $I_B > I_A$ ) ... then the future  $PPC$  might move out to  $PPC\ 2010$  *with B* instead.
- The level of investment (*savings*) in an economy is only one determinant of the movement outward (*or inward*) of the *production possibilities curve*.



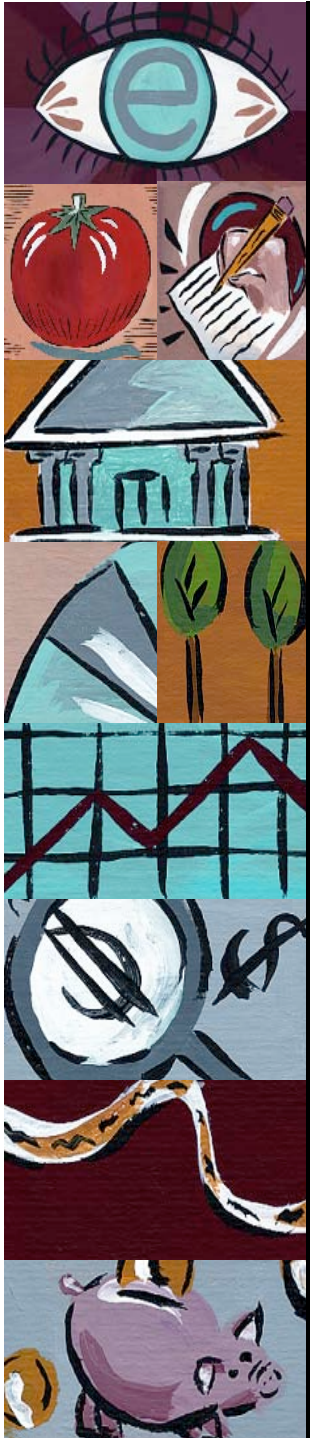


# Trade, Output, and Living Standards



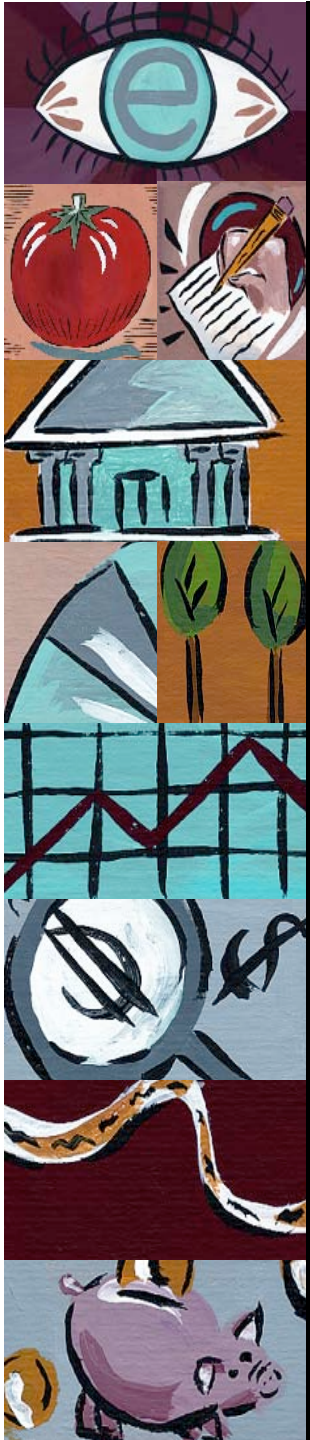
# Division of Labor

- *Division of labor*: breaks down the production of a commodity into a series of tasks performed by different workers.
- Specialization and division of labor increase output for three reasons:
  - Specialization permits individuals to take advantage of their existing skills.
  - Specialized workers become more skilled with time.
  - Division of labor allows for the adoption of mass-production technology.

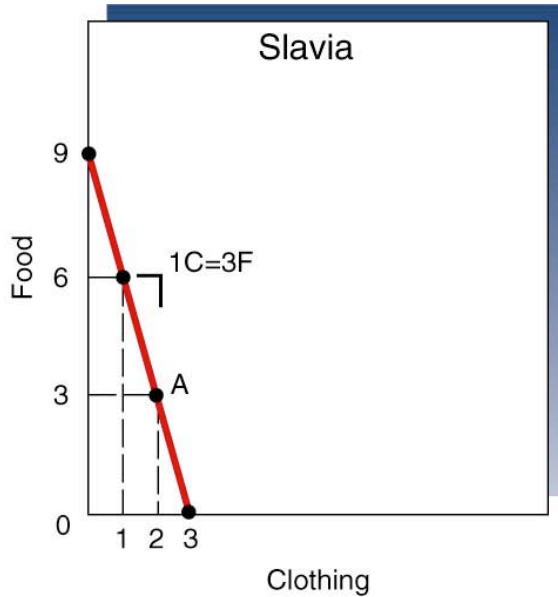


# Law of Comparative Advantage

- *Law of comparative advantage:*  
The proposition that the joint output of trading partners will be greatest when each good is produced by the low opportunity cost producer.
  - Implies that trading partners can gain by specializing in the production of goods they can produce at a relatively low cost and trade for goods they could only produce at a relatively high cost.
  - The principle of comparative advantage is universal as it applies across individuals, firms, regions and countries.

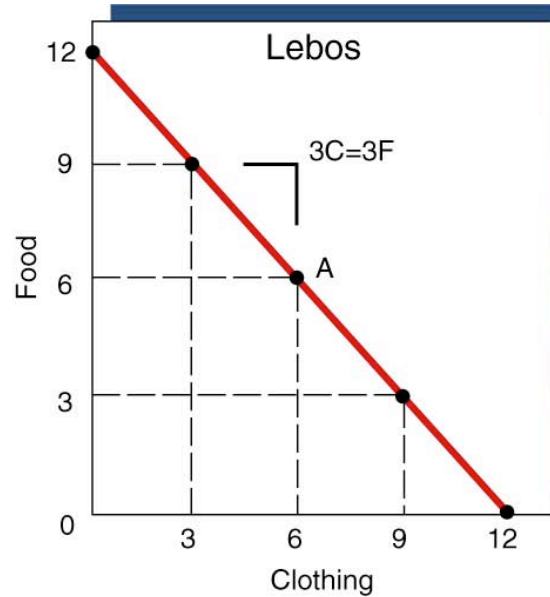


# Comparative Advantage



SLAVIA	
Food	Clothing
9	0
6	1
3	2
0	3

$3F=1C$



LEBOS	
Food	Clothing
12	0
9	3
6	6
3	9
0	12

$3F=3C$



# Voluntary Exchange

- Voluntary exchange channels goods toward those who value them most and permits us to realize gains from specialization, division of labor, mass production, and cooperative effort among individuals.
  - These elements underlie our living standards.



# Economies of Scale and Innovation

- *Economies of Scale:*  
often times large scale production leads to lower per unit costs.
- *Innovation:*  
technological change is about figuring out how to get more out of existing resources



# Is the Size of the Economic Pie Fixed or Variable?



# Economic Pie

- At a point in time, output is limited by the resource base. The production possibilities curve highlights this point.
- Over time, investment and improvements in technology permits us to increase output. Shifts in the production possibilities curve highlight this point.



# Economic Organization



# Market Organization

- *Market organization:*  
A method or organization that allows for unregulated prices and the decentralized decisions of private property owners to resolve the basic economic problems.
  - Sometimes called *capitalism*.



# Collective Decision Making

- *Collective decision making:*  
An organizational method that relies on public-sector decision making to resolve basic economic issues.
  - An economic system in which the government owns the income-producing assets and directly determines what goods they produce is called *socialism*.
  - In a democracy, political decision makers have to consider how their actions will influence their election prospects.



## Questions for Thought:

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1. Suppose Amy is a doctor who has records that need to be entered. Doing this work herself would take 10 hours per week. She is contemplating hiring an assistant could do the same work in 40 hours. If Amy can make \$80 per hour seeing patients, should she hire the assistant at \$10 an hour?
2. Do you make the food that you consume and the clothing you wear for your self? Would modern living standards be possible without trade?



# End Chapter 2

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