Unit 1: Basic Economic Concepts

WE HAVE A PROBLEM!!

The Economizing Problem…

Scarcity

Society has unlimited wants but ~~unlimited~~ resources

The Production Possibilities Curve (PPC)

Using Economic Models…

Step 1: Explain concept in words
Step 2: Use numbers as examples
Step 3: Generate graphs from numbers
Step 4: Make generalizations using graph

What is the Production Possibilities Curve?

A production possibilities graph (PPG) is a model that shows alternative ways that an economy can use its scarce resources

This model graphically demonstrates scarcity, trade-offs, opportunity costs, and efficiency.

4 Key Assumptions

Only two goods can be produced

Full employment of resources

Fixed Resources (*Ceteris Paribus*)

Fixed Technology

Production "Possibilities" Table

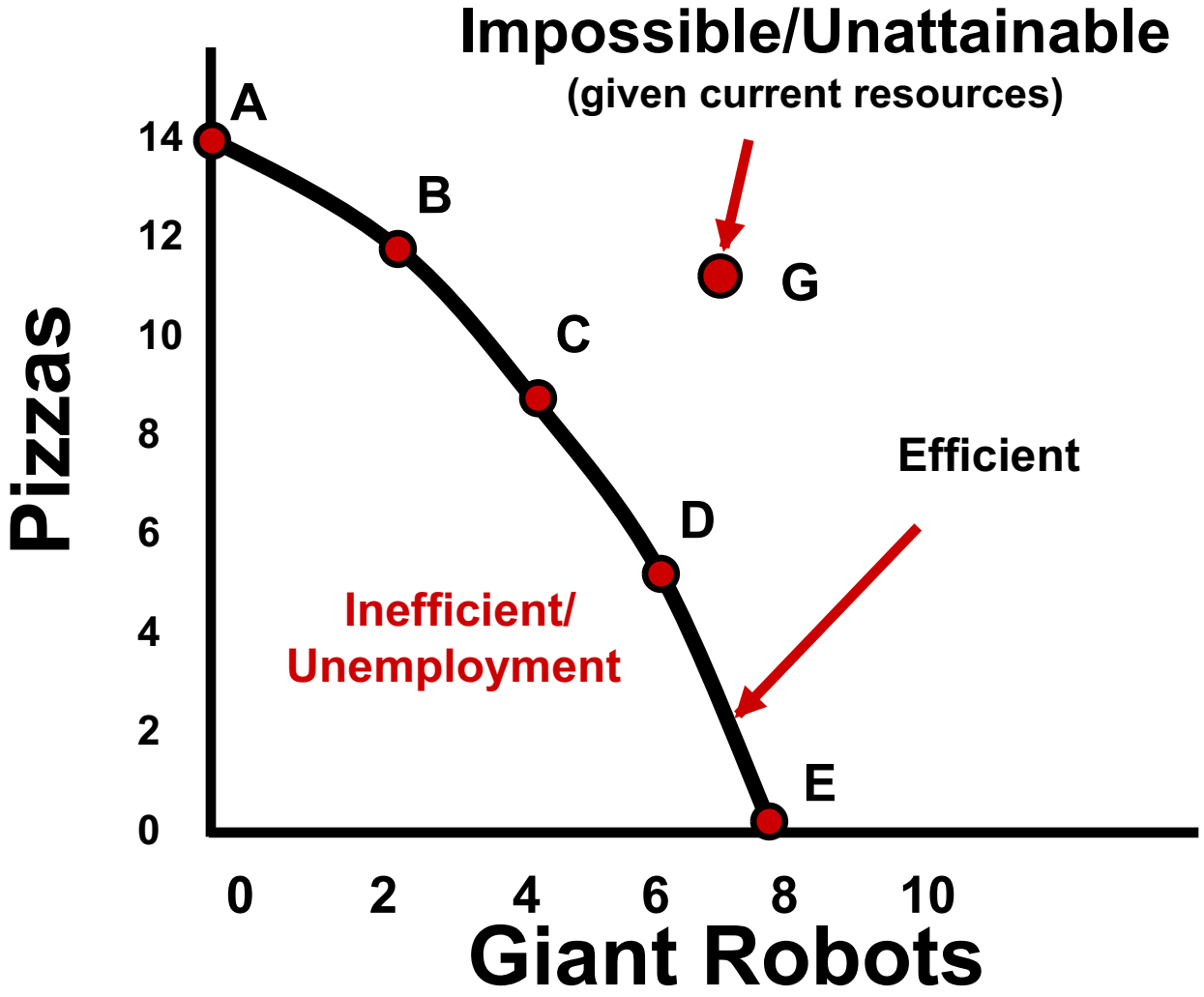
	a	b	c	d	e
Pizzas	14	12	9	5	0
Giant Robots	0	2	4	6	8

Each point represents a specific combination of goods that can be produced given full employment of resources.

NOW GRAPH IT: Put Pizzas on y-axis and Giant Robots on x-axis

Production Possibilities

How does the PPG graphically demonstrates scarcity, trade-offs, opportunity costs, and efficiency?



Opportunity Cost

Example:

1. The opportunity cost of moving from a to b is… ***2 Bikes***

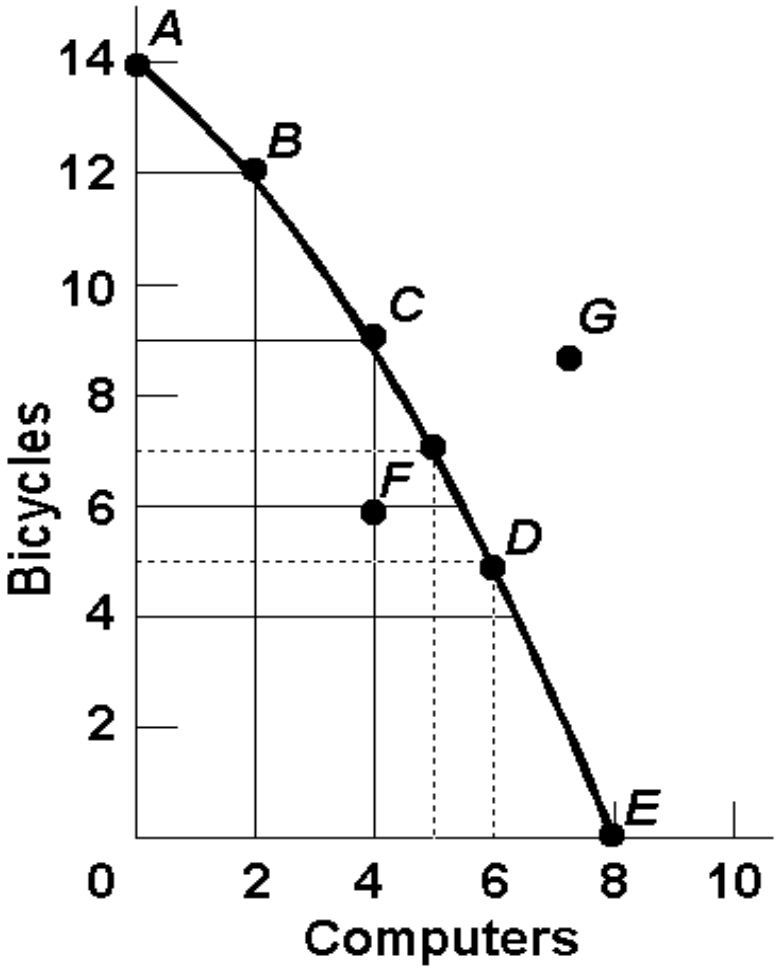
2.The opportunity cost of moving from b to d is… ***7 Bikes***

3.The opportunity cost of moving from d to b is… ***4 Computer***

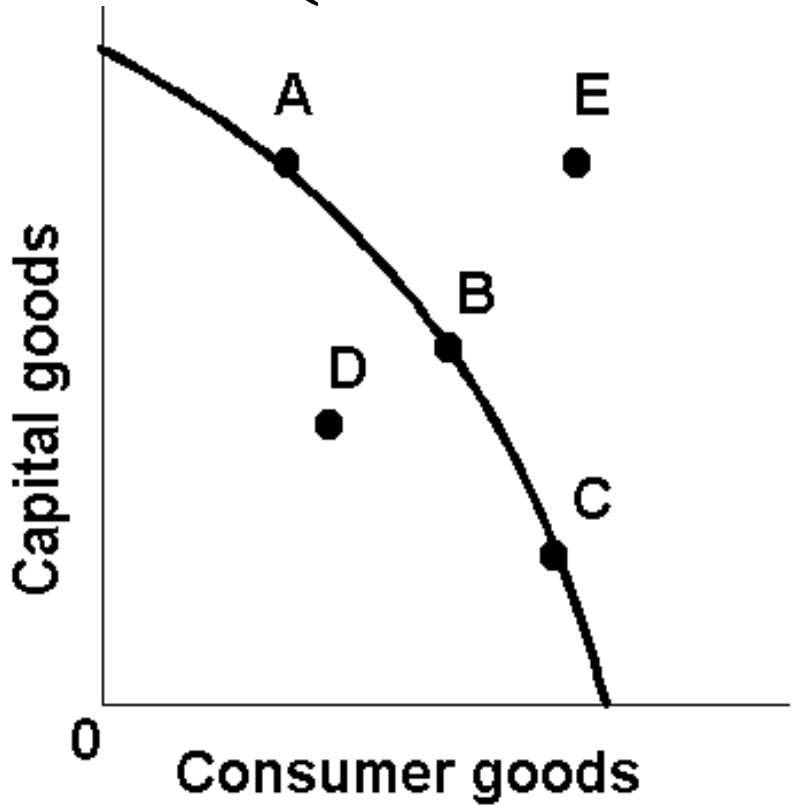
4.The opportunity cost of moving from f to c is… ***0 Computers***

5.What can you say about point G?

Unattainable



The Production Possibilities Curve (or Frontier)



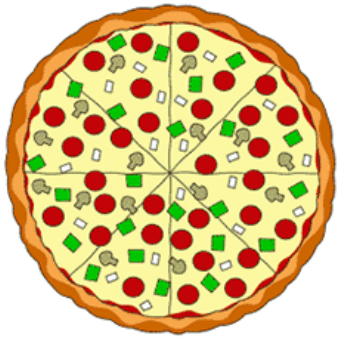
Production Possibilities

	A	B	C	D	E
CALZONES	4	3	2	1	0
PIZZA	0	1	2	3	4

List the Opportunity Cost of moving from a-b, b-c, c-d, and d-e.

Constant Opportunity Cost- Resources are easily adaptable for producing either good.

Result is a straight line PPC (not common)



Production Possibilities

	A	B	C	D	E
PIZZA	20	19	16	10	0
ROBOTS	0	12	34		

List the Opportunity Cost of moving from a-b, b-c, c-d, and d-e.

Law of Increasing Opportunity Cost-

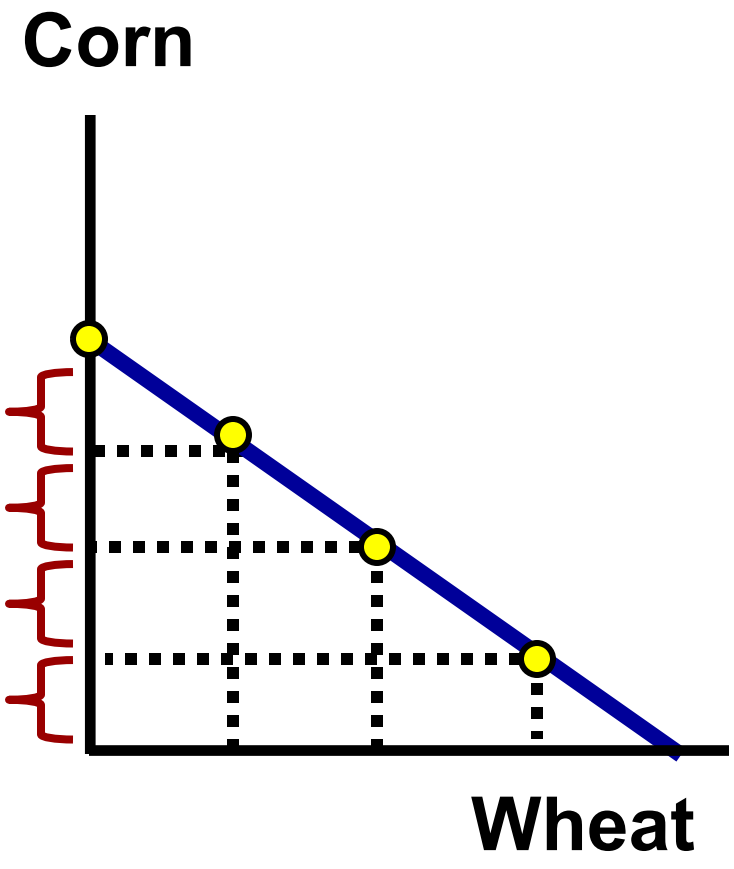
As you produce more of any good, the opportunity cost (forgone production of another good) will increase.

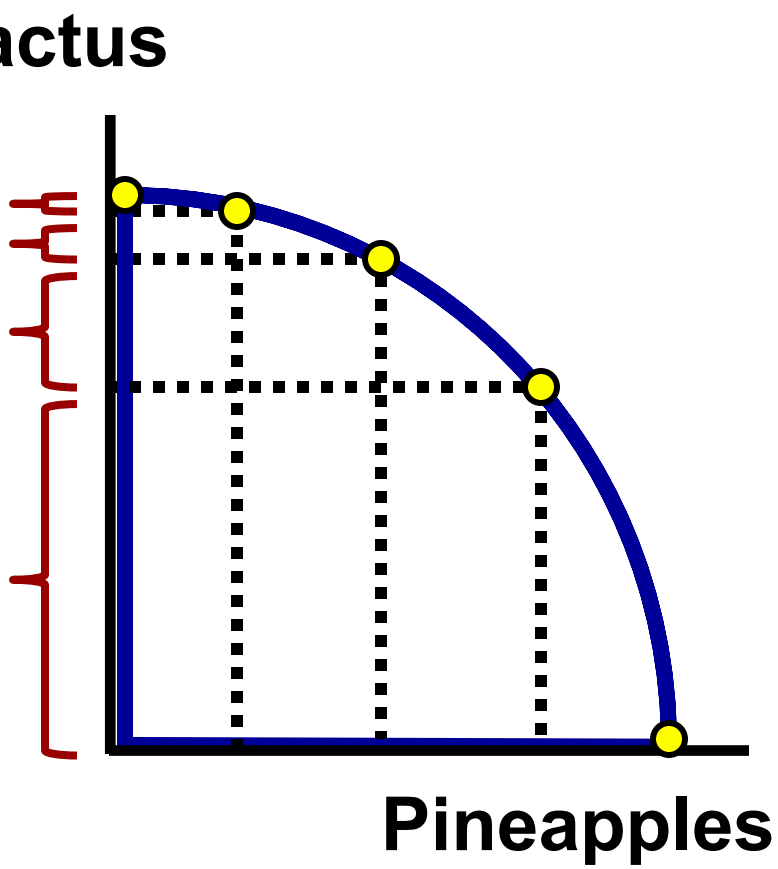
Why? Resources are NOT easily adaptable to producing both goods.

Result is a bowed out (Concave) PPC

Constant vs. Increasing Opportunity Cost

Identify which product would have a straight line PPC and which would be bowed out?





PER UNIT Opportunity Cost

How much each marginal unit costs = Opportunity Cost / Units Gained

Example:

1. The PER UNIT opportunity cost of moving from a to b is…

1 Bike

2.The PER UNIT opportunity cost of moving from b to c is…

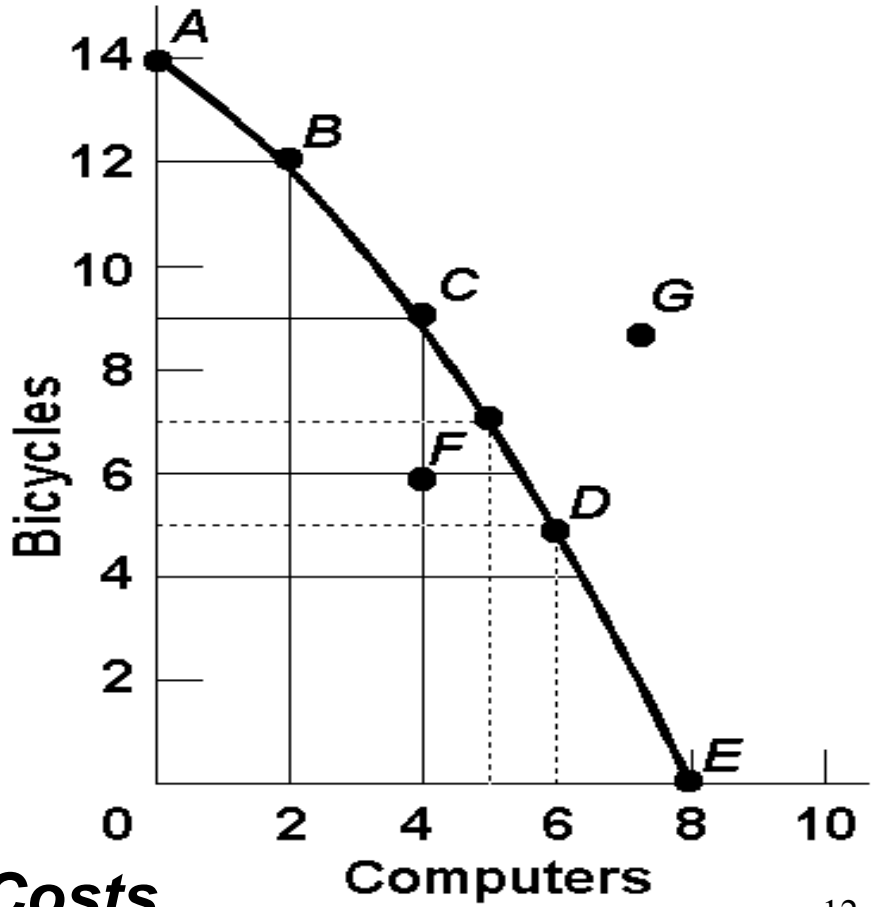
1.5 (3/2) Bikes

3.The PER UNIT opportunity cost of moving from c to d is…

2 Bikes

4.The PER UNIT opportunity cost of moving from d to e is…

2.5 (5/2) Bikes



NOTICE: Increasing Opportunity Costs

The Production Possibilities Curve and Efficiency

Two Types of Efficiency

Productive Efficiency-

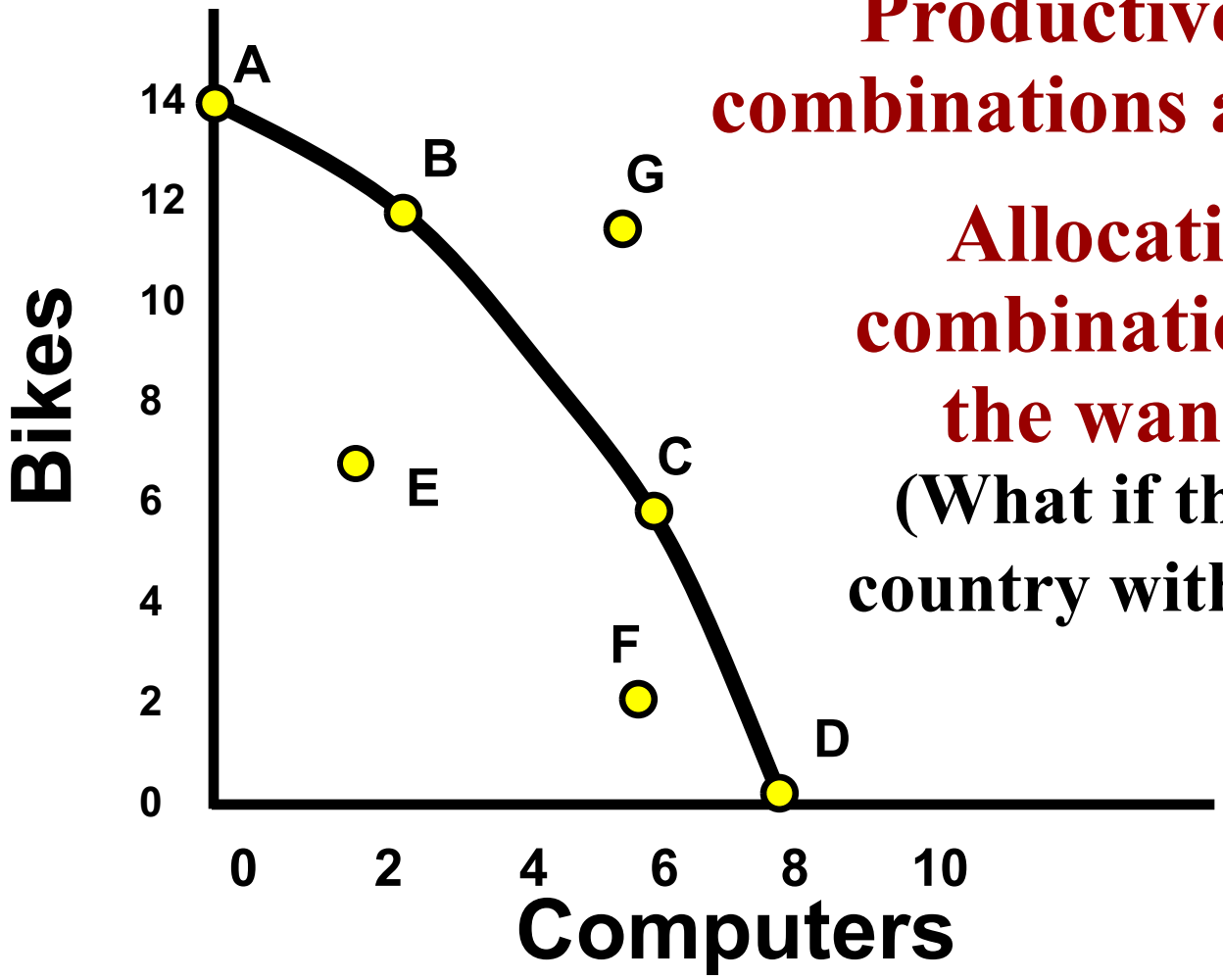
- **Products are being produced in the least costly way.**
- **This is any point ON the Production Possibilities Curve**

Allocative Efficiency-

- **The products being produced are the ones most desired by society.**
- **This *optimal* point on the PPC depends on the desires of society.**

Productive and Allocative Efficiency

Which points are productively efficient?
Which are allocatively efficient?



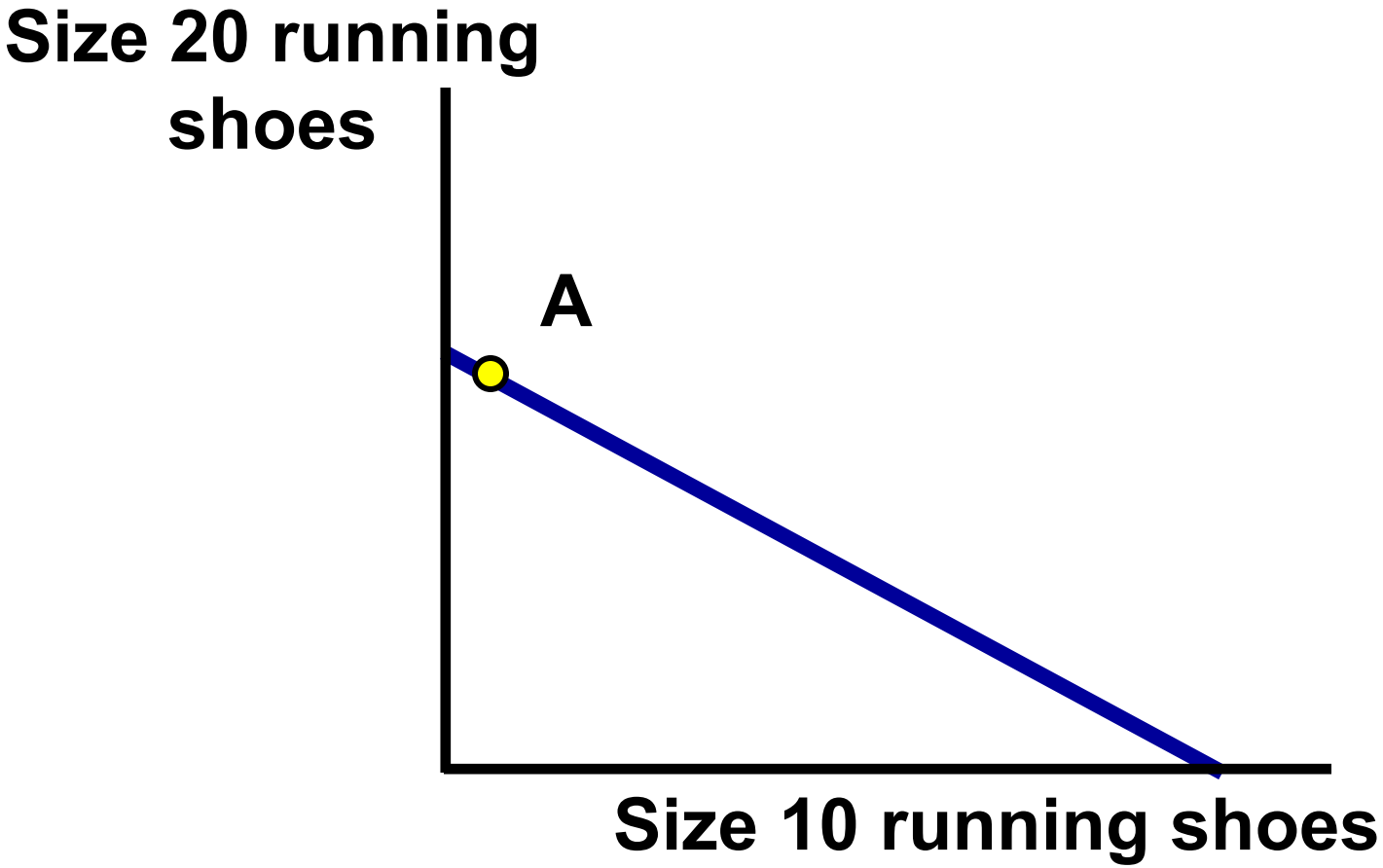
Productively Efficient combinations are A through D

Allocative Efficient combinations depend on the wants of society
(What if this represents a country with no electricity?)

Why two types of efficiency?

Is combination "A" efficient?

Yes and No. It is productively efficient but it is not the combination society wants



Shifting the Production Possibilities Curve

Production Possibilities

4 Key Assumptions Revisited

Only two goods can be produced

Full employment of resources

Fixed Resources (4 Factors)

Fixed Technology

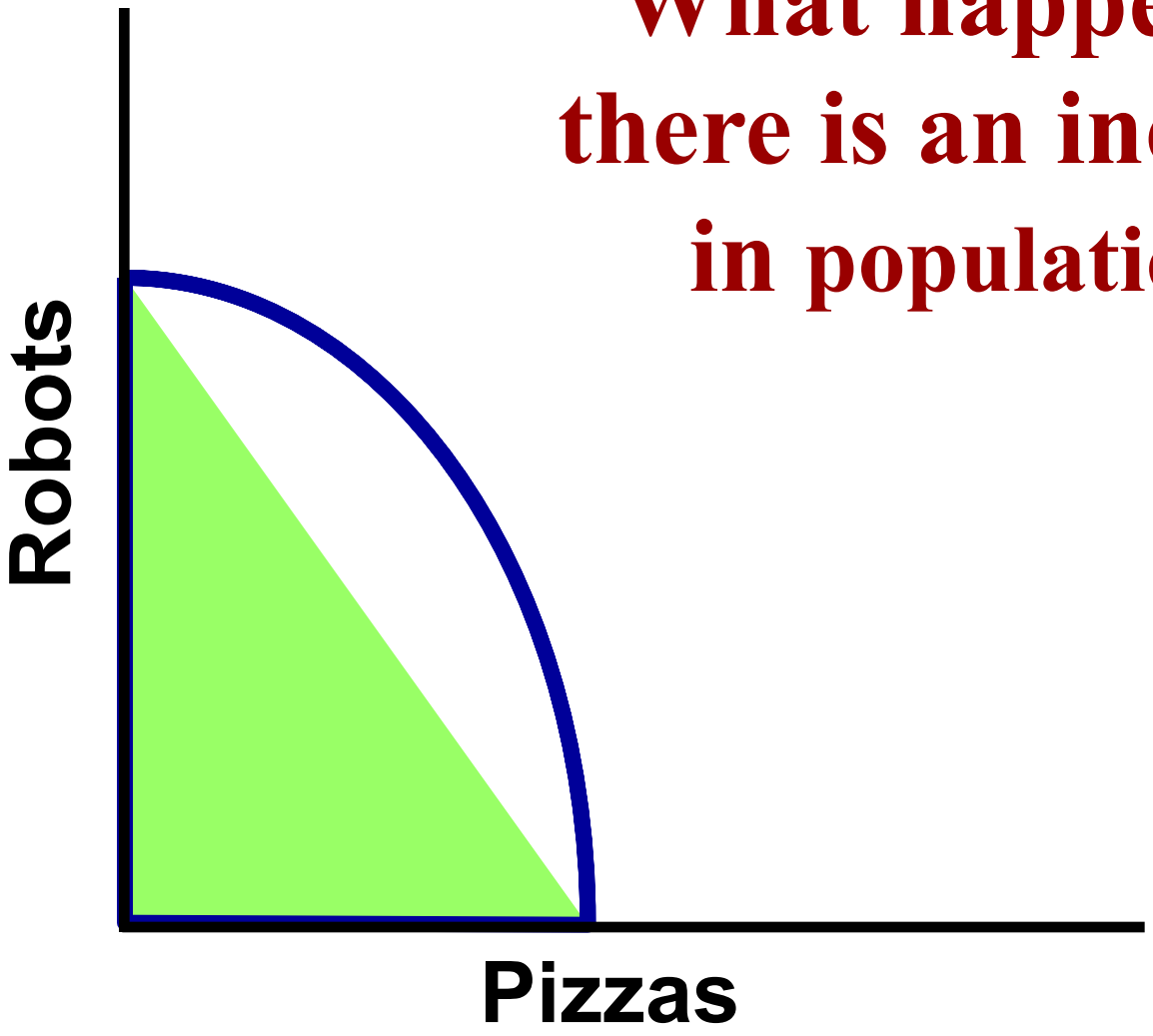
What if there is a change?

3 Shifters of the PPC

1. **Change in resource quantity or quality**
2. **Change in Technology**
3. **Change in Trade**

Production Possibilities

What happens if there is an increase in population?



Production Possibilities

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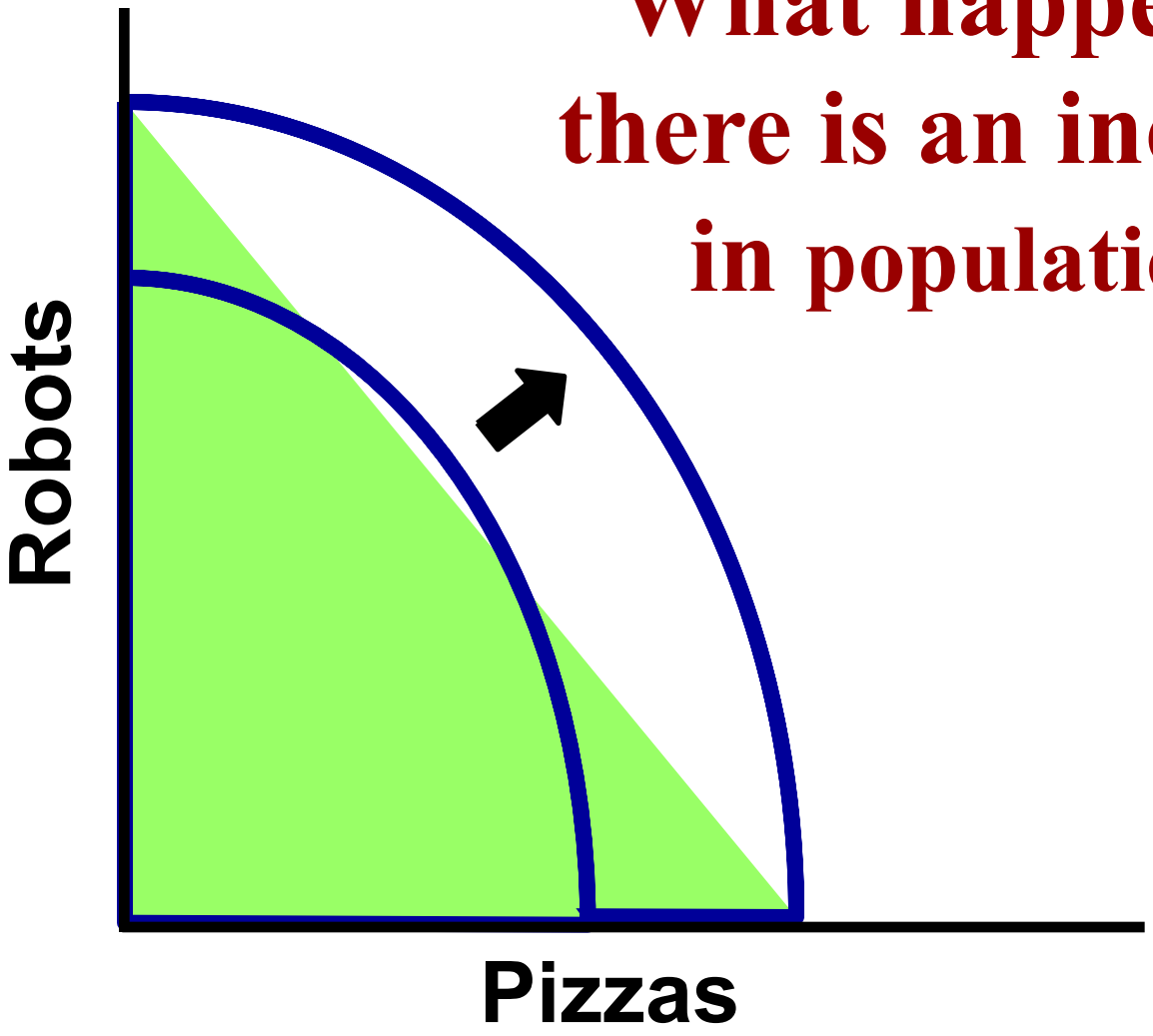
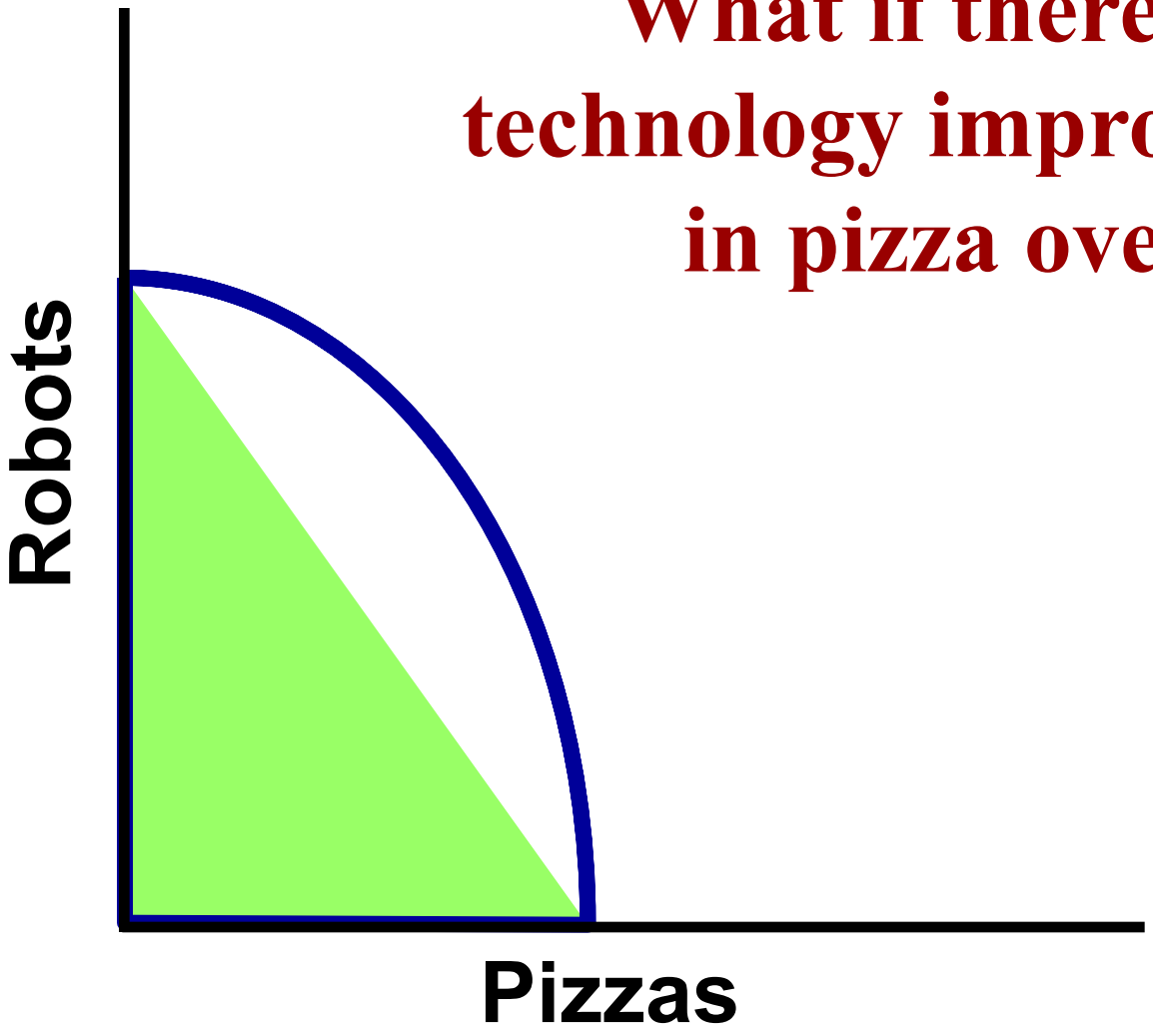


Production Possibilities

What if there is a technology improvement in pizza ovens



Production Possibilities

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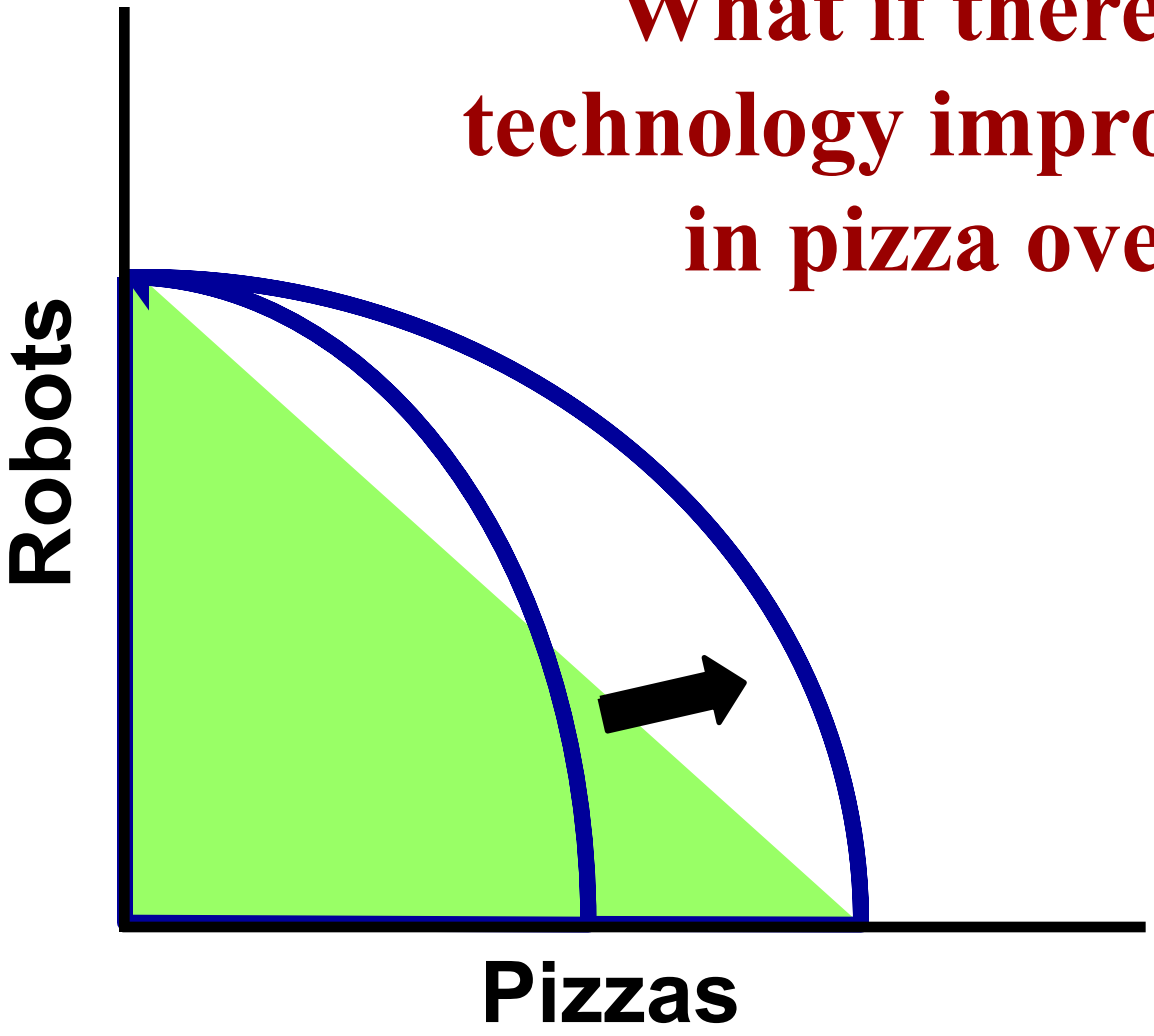
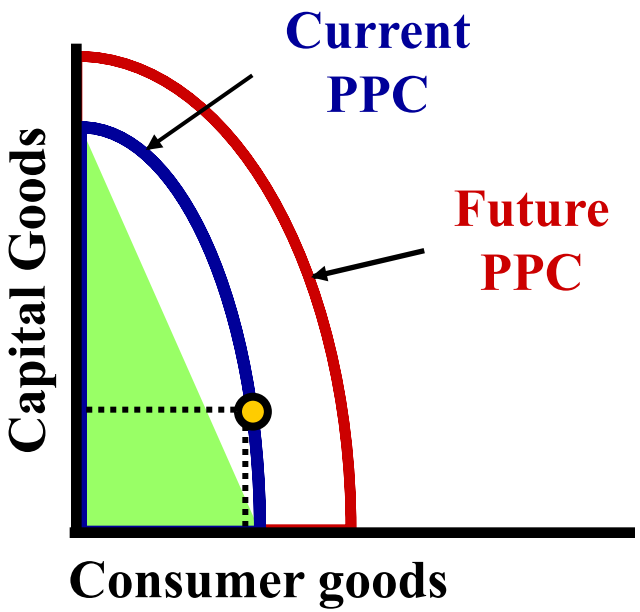


Capital Goods and Future Growth

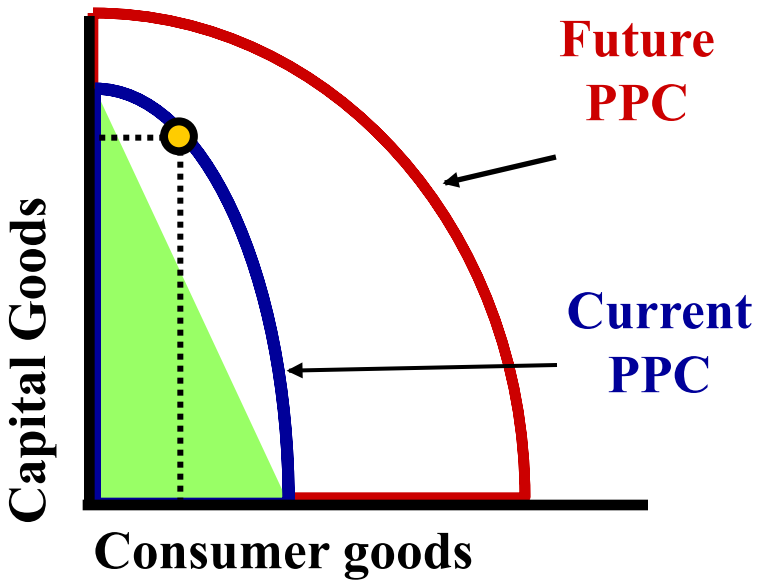
Countries that produce more capital goods will have more growth in the future.

Panama – Favors Consumer Goods



Panama

Mexico – Favors Capital Goods



Mexico

PPC Practice

Draw a PPC showing changes for each of the following:

Pizza and Robots (3)

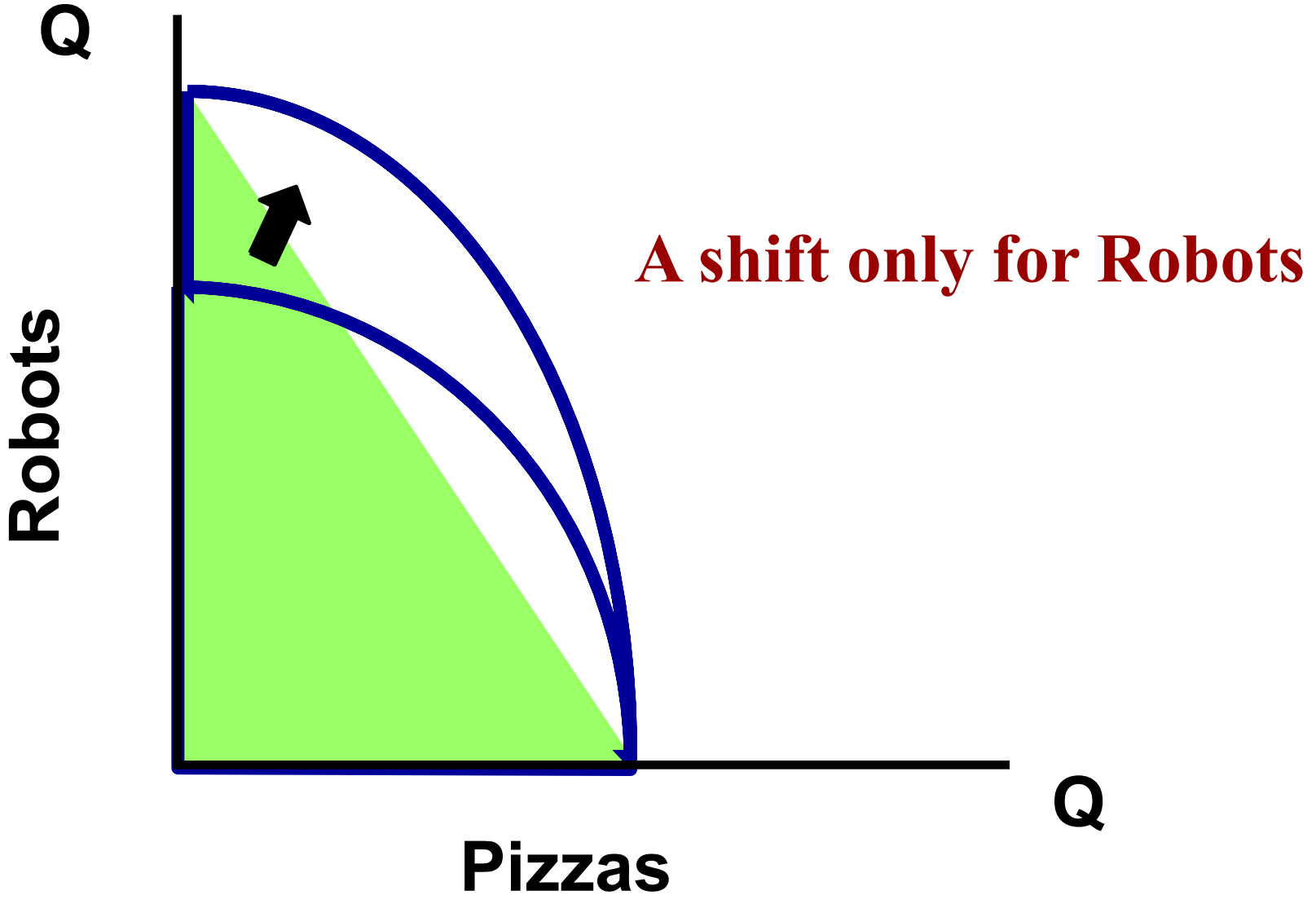
1. New robot making technology
2. Decrease in the demand for pizza
3. Mad cow disease kills 85% of cows

Consumer goods and Capital Goods (4)

4. Destruction of power plants leads to severe electricity shortage
5. Faster computer hardware
6. Many workers unemployed
7. Significant increases in education

Question #1

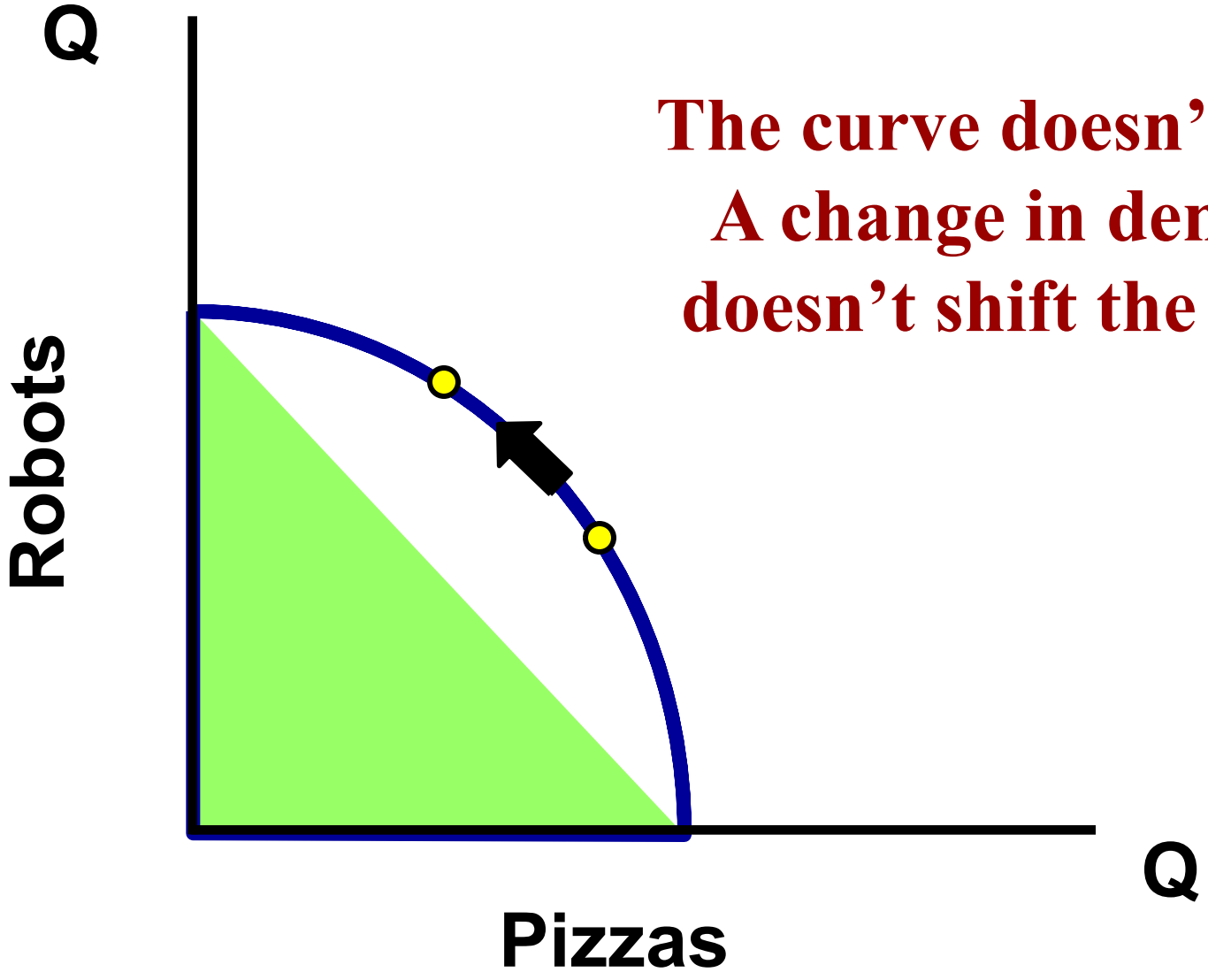
New robot making technology



A shift only for Robots

Question #2

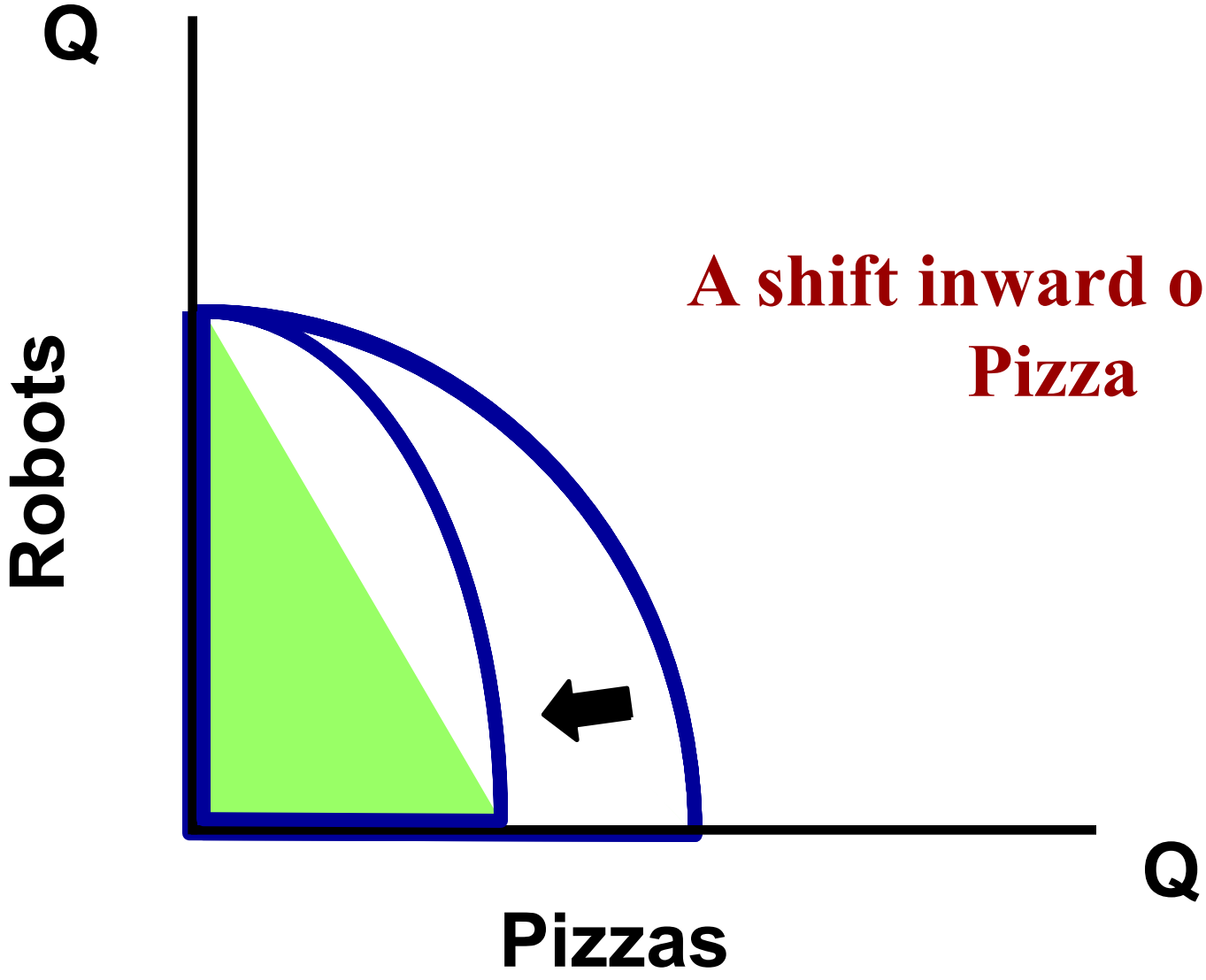
Decrease in the demand for pizza



The curve doesn't shift!
A change in demand doesn't shift the curve

Question #3

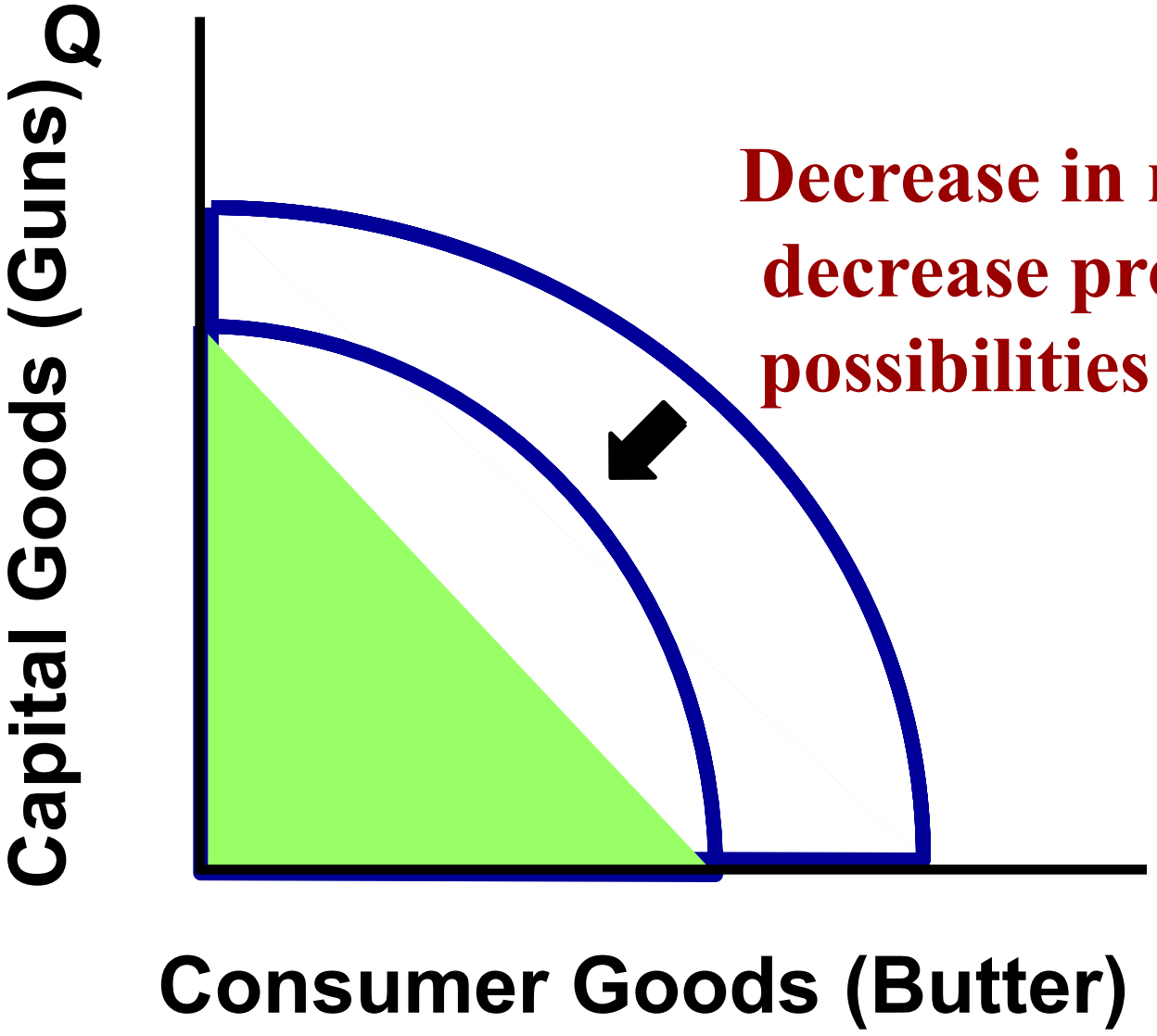
Mad cow disease kills 85% of cows



A shift inward only for Pizza

Question #4

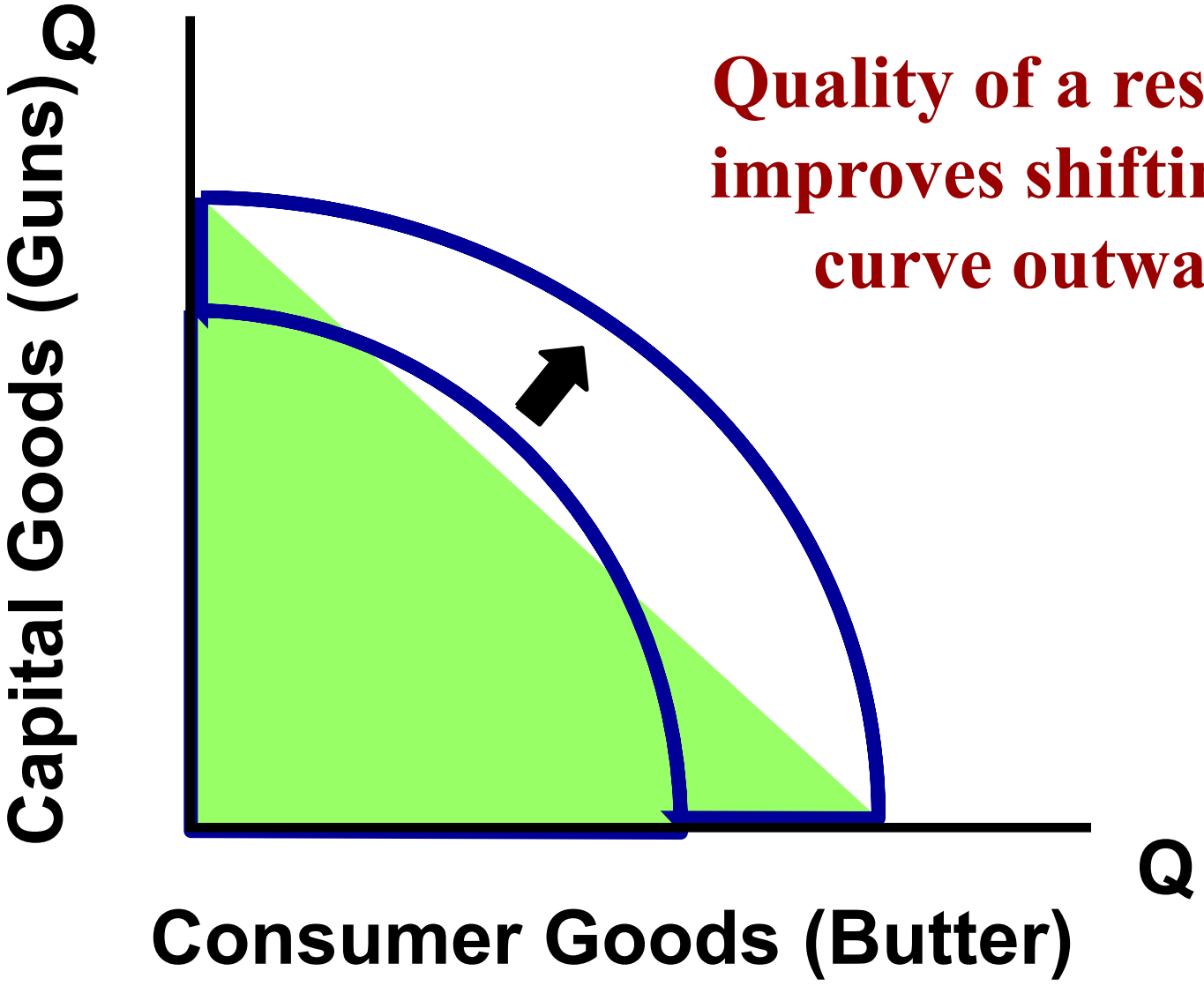
Oil Spill in the Gulf



Decrease in resources decrease production possibilities for both

Question #5

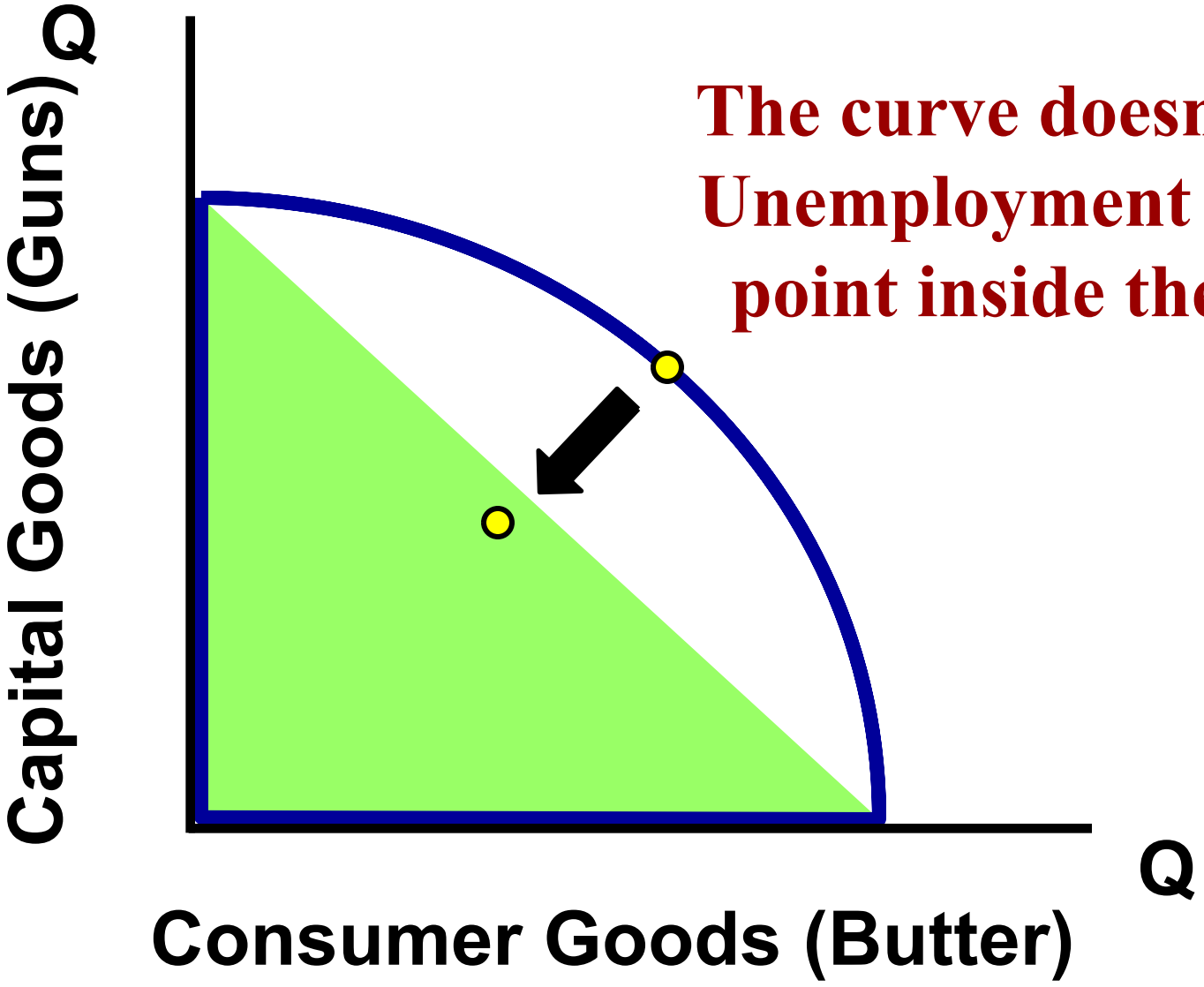
Faster computer hardware



Quality of a resource improves shifting the curve outward

Question #6

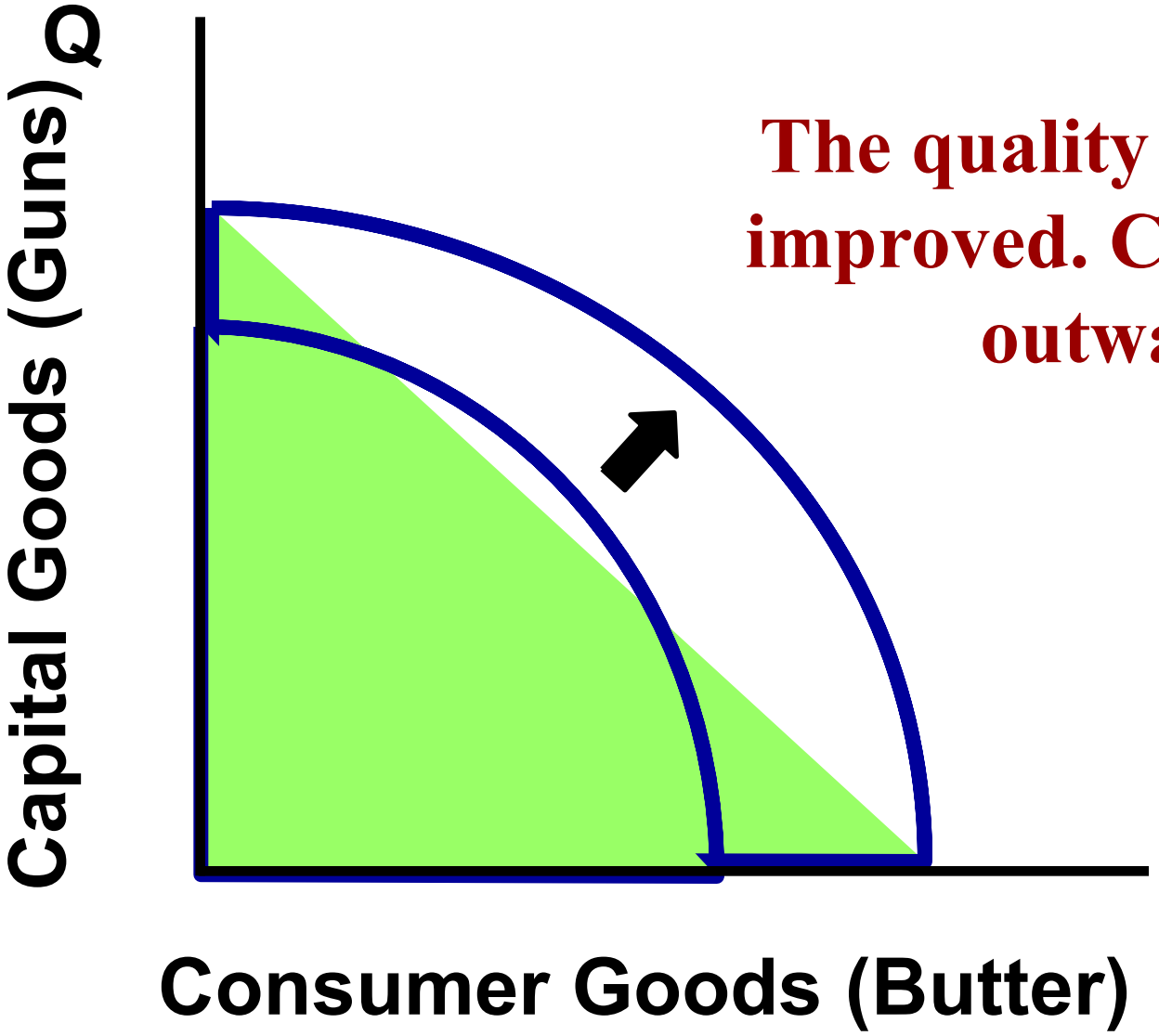
Many workers unemployed



The curve doesn't shift! Unemployment is just a point inside the curve

Question #7

Significant increases in education



The quality of labor is improved. Curve shifts outward.