Economics: Core Concepts Part II

When everybody else is better off, they can buy more, they strengthen demand, strengthen the market, strengthen the country.
-Carlos Slim Helu

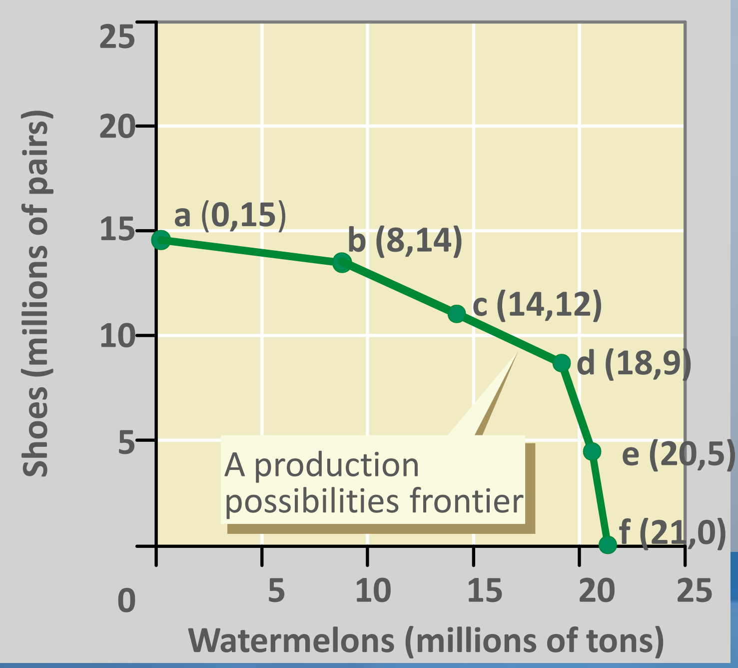
Production Possibilities Model

- The production possibilities model rests on certain assumptions.
  - fixed resources
  - fully employed resources
  - ***technology*** – the body of knowledge and skills applied to how goods are produced – unchanged
- Scarcity limits an economy to points on or below its production possibilities curve.

Production Possibilities

A **production possibilities graph** shows alternative ways that an economy can use its resources. The **production possibilities frontier** is the line that shows the maximum possible output for that economy.

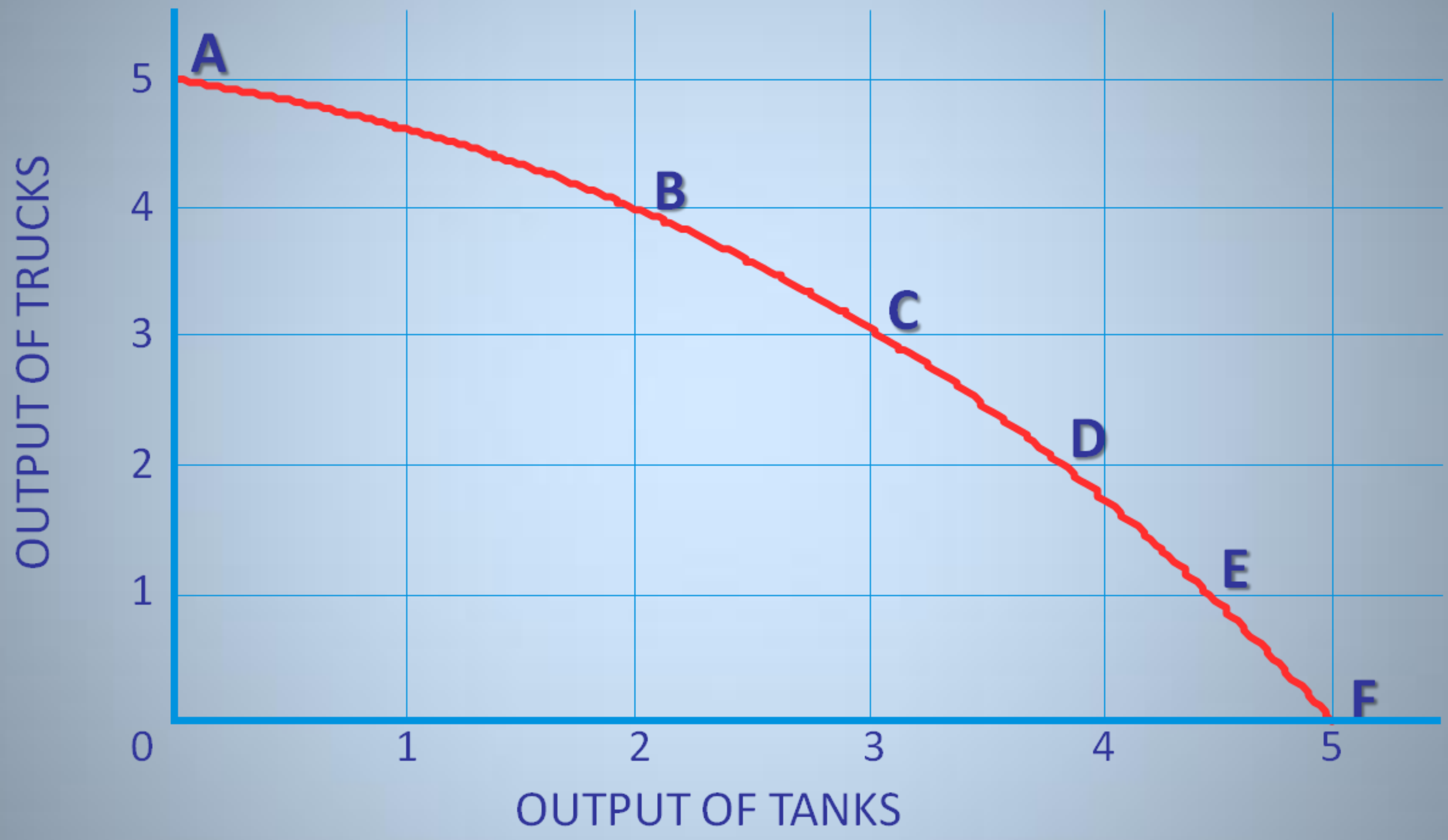
Watermelons (millions of tons)	Shoes (millions of pairs)
0	15
8	14
14	12
18	9
20	5
21	0



Production Possibilities

Total Labor	Truck Production			Tank Production		
	Truck Output	X Labor per Truck	= Total Labor Required	Labor Not Used for Trucks	Potential Output of Tanks / Day	Increase in Tank Output
A 10	5	2	10	0	0	
B 10	4	2	8	2	2.0 >	2.0
C 10	3	2	6	4	3.0 >	1.0
D 10	2	2	4	6	3.8 >	0.8
E 10	1	2	2	8	4.5 >	0.7

The Production Possibilities Curve



What a Shift of Curve Means

- **Production possibilities frontier curves** only shift outward to the right.
- An outward shift of the curve equals economic growth.

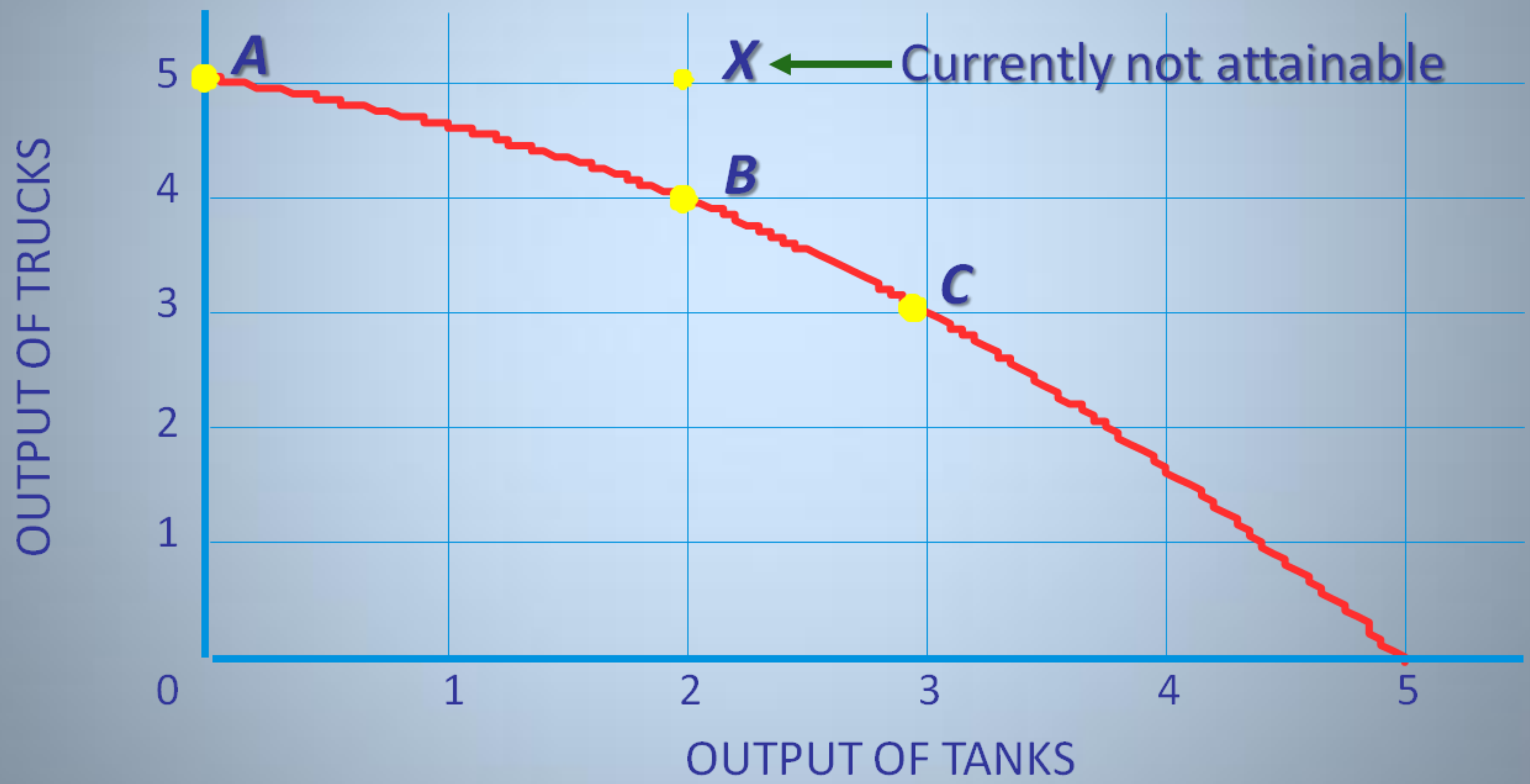
Economic Growth

- A point *outside* the **production possibilities curve** suggests that we could get *more* goods than we are capable of producing!
- ***Economic growth*** is an increase in output (real GDP) … an expansion of **production possibilities** and an outward shift of its **production possibilities curve**.

Technology

- One of the variables that makes economic growth possible is research in and the development of new technologies.
- ***Technology*** is the body of knowledge and skills applied to how goods are produced.
- When an economy does not invest in new **technology**, everything else being equal, the economy will not grow.
- The **opportunity cost** of investment is the consumer goods that could have been purchased with the invested money but investments lead to future economic growth and more goods and services.

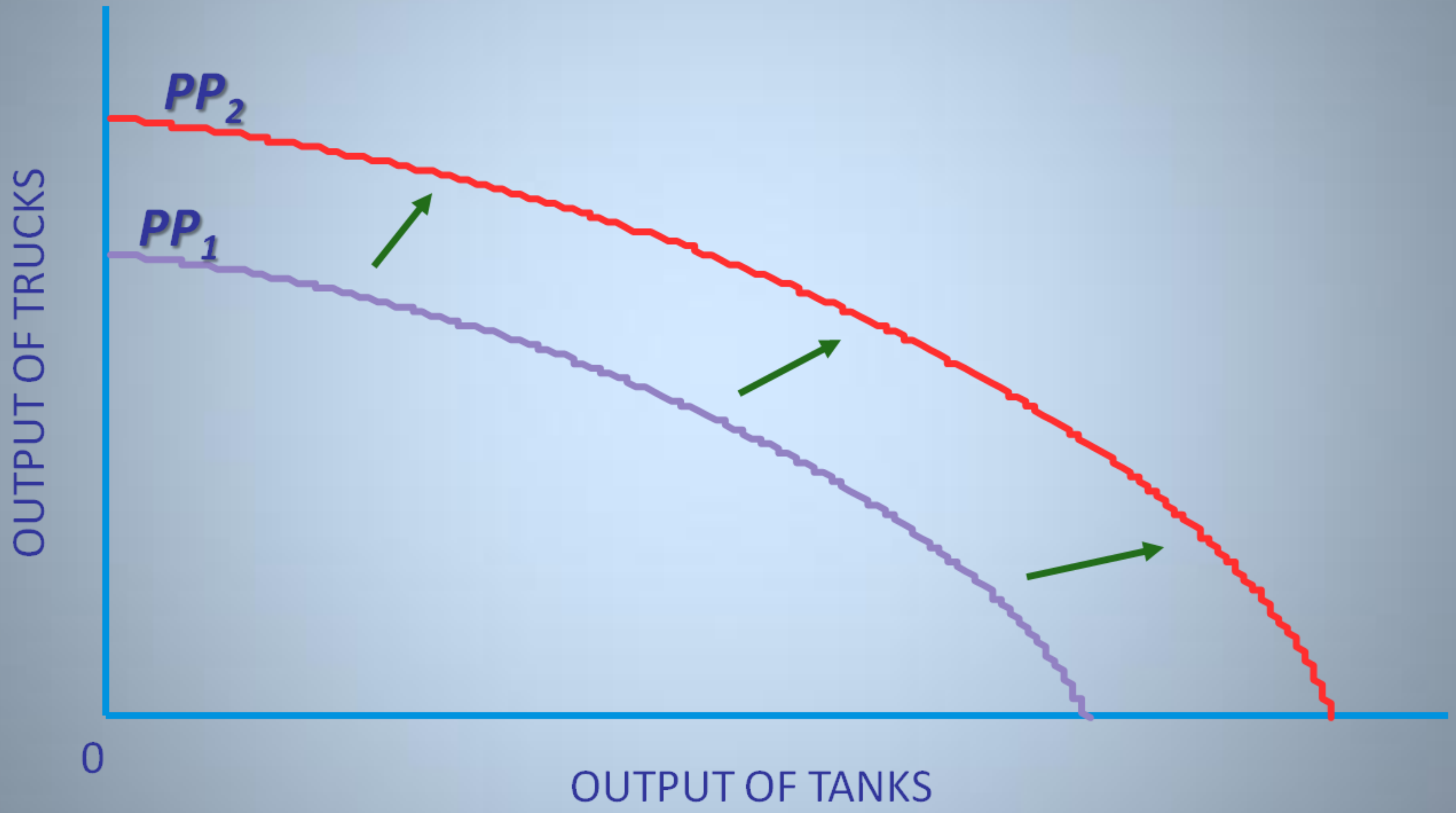
Economic Growth



Economic Growth

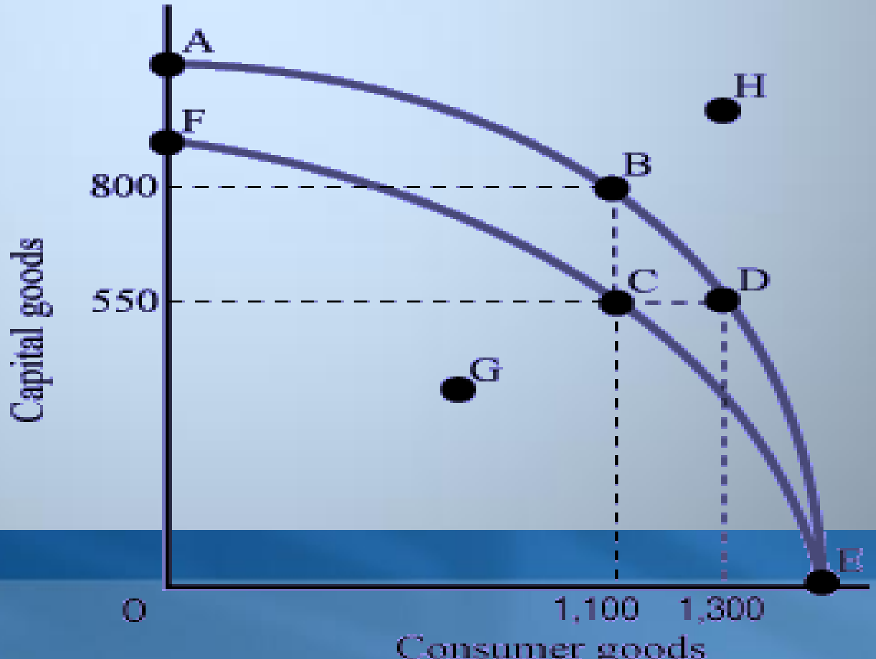
- Production possibilities increase with more resources or better technology.
- When production possibilities increase, the **production possibilities curve** shifts outward.

Economic Growth



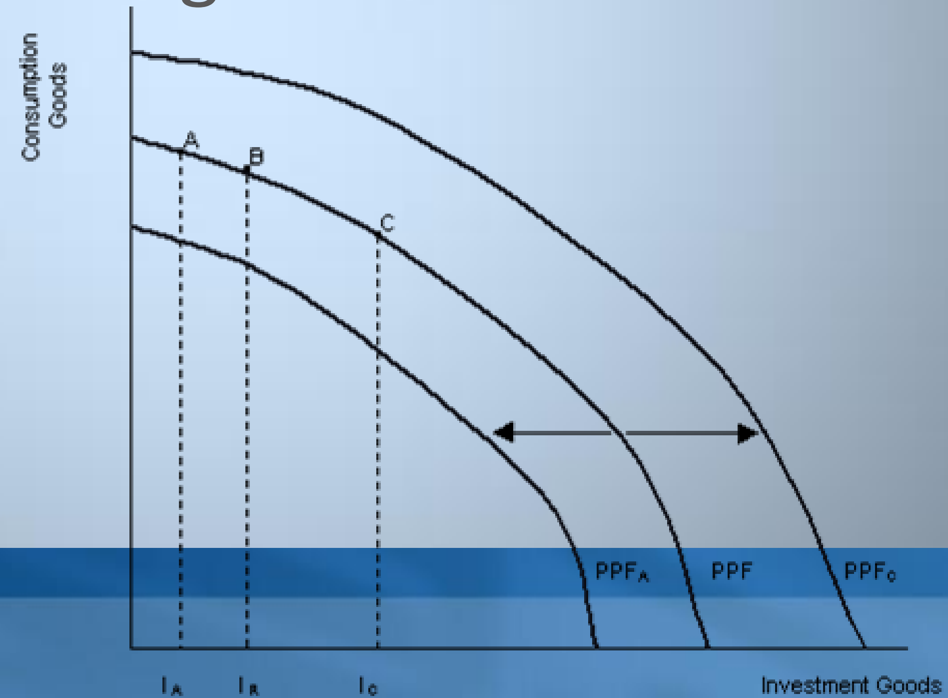
Small Future Growth

- More **factors of production** used in present goods than future goods.
- Give up future goods for things in the immediate.



Large Economic Growth

- More **factors of production** are put into future goods than present goods.
- Give up present things for future.



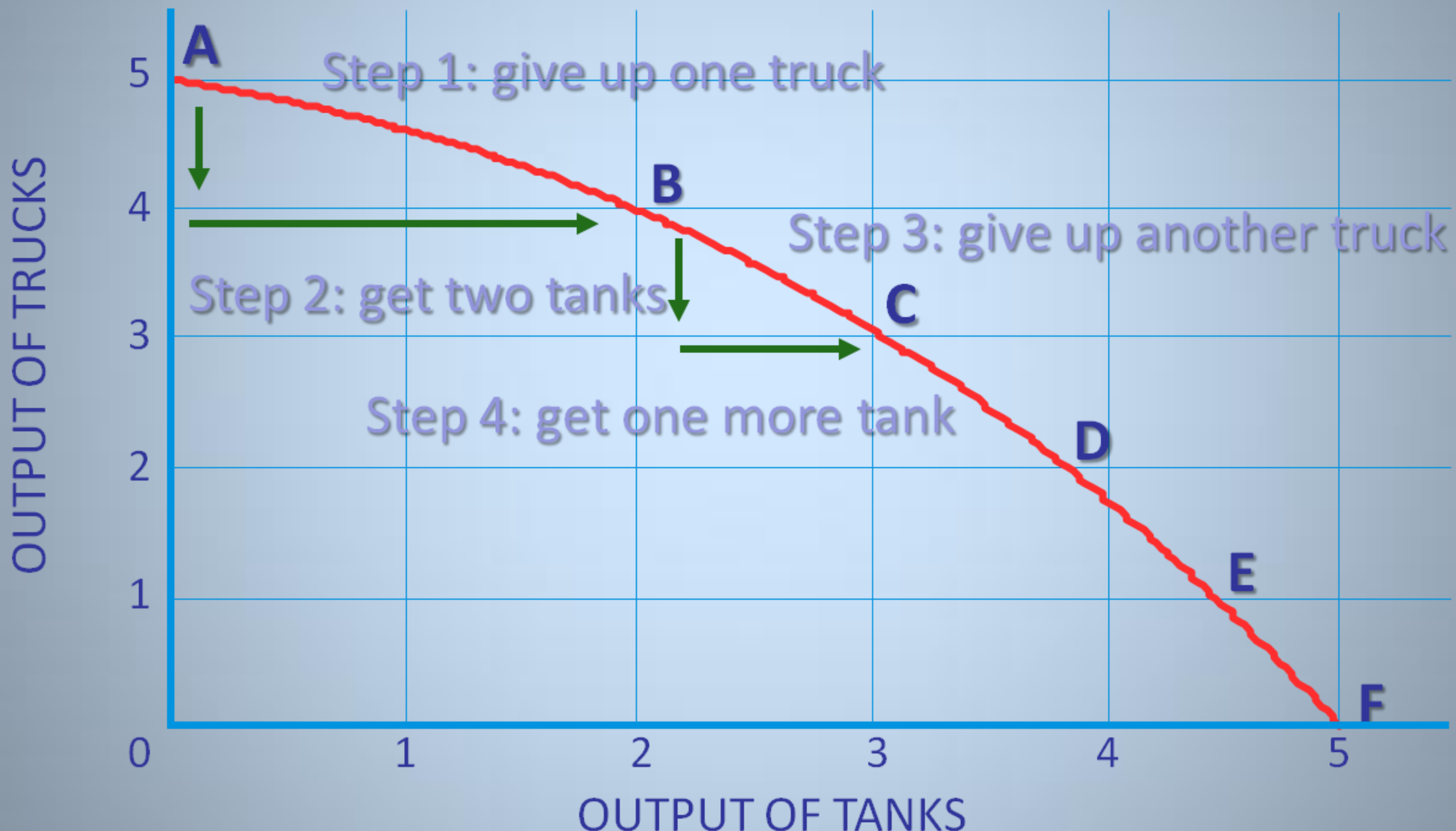
Production Possibilities Illustrates Two Economic Concepts

- ***Scarce resources*** – There's a limit to the amount we can produce in a given time period with available resources and technology.
- ***Opportunity costs*** – We can obtain additional quantities of any desired good only by reducing the potential production of another good.

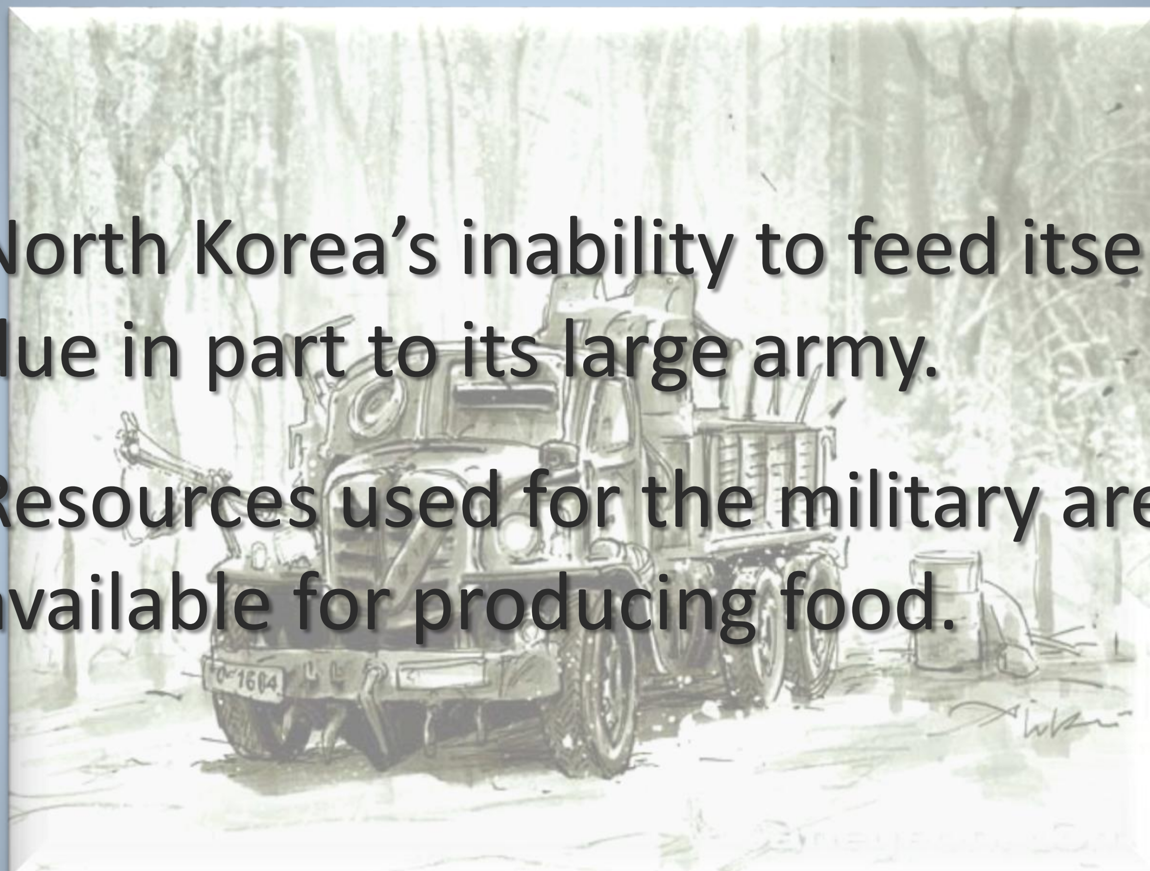
Increasing Opportunity Costs

- Resources do not transfer perfectly from the production of one good to another.
- Increasing quantities of any good can be obtained only by sacrificing ever-increasing quantities of other goods.
- Opportunity cost increases as production of one output expands.

Increasing Opportunity Costs

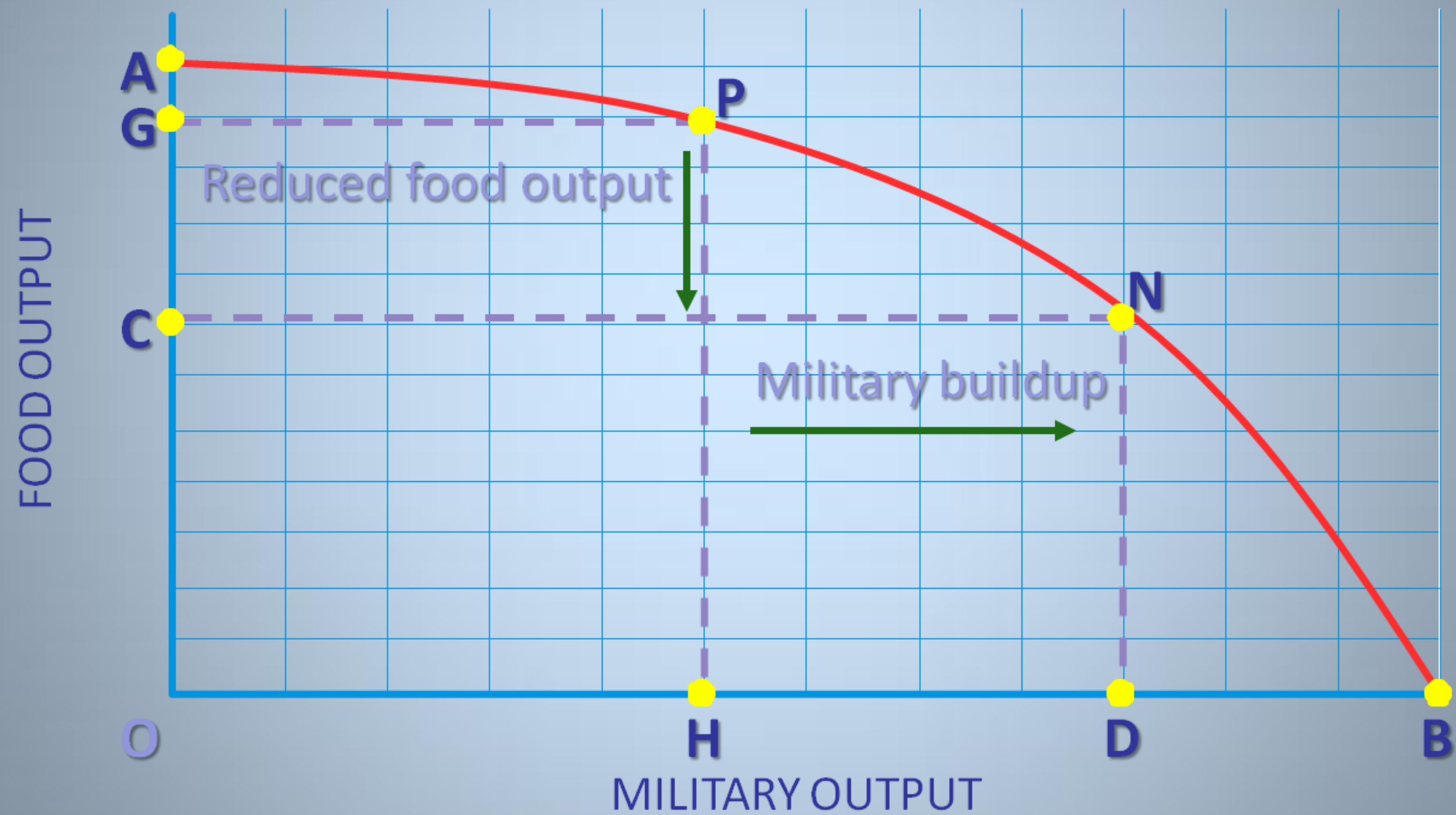


The Cost of North Korea’s Military

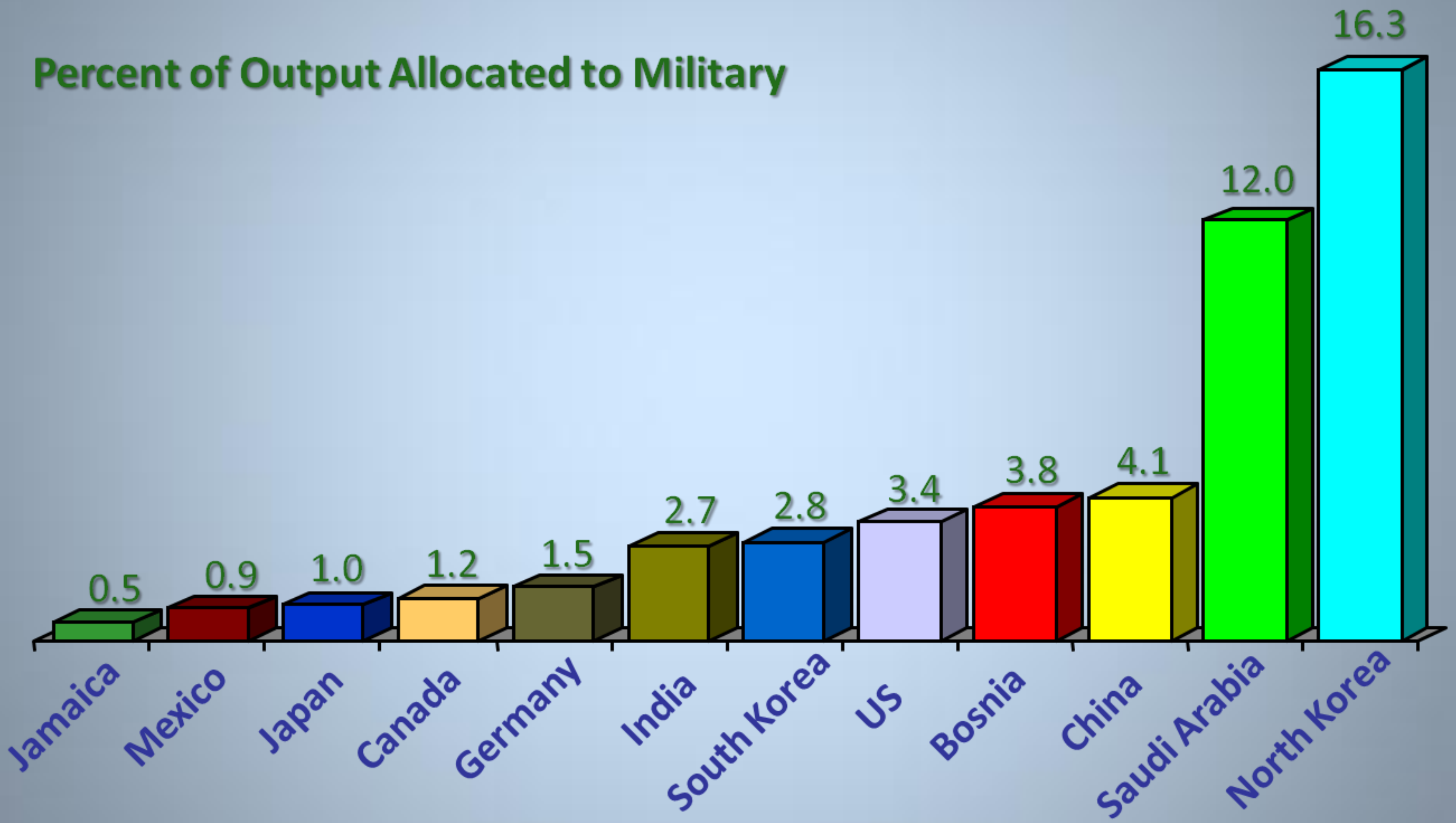


- North Korea’s inability to feed itself is due in part to its large army.
- Resources used for the military aren’t available for producing food.

The Cost of North Korea's Military



The Military Share of Output



Economic Concept #4: The standard of living depends on a country's production.

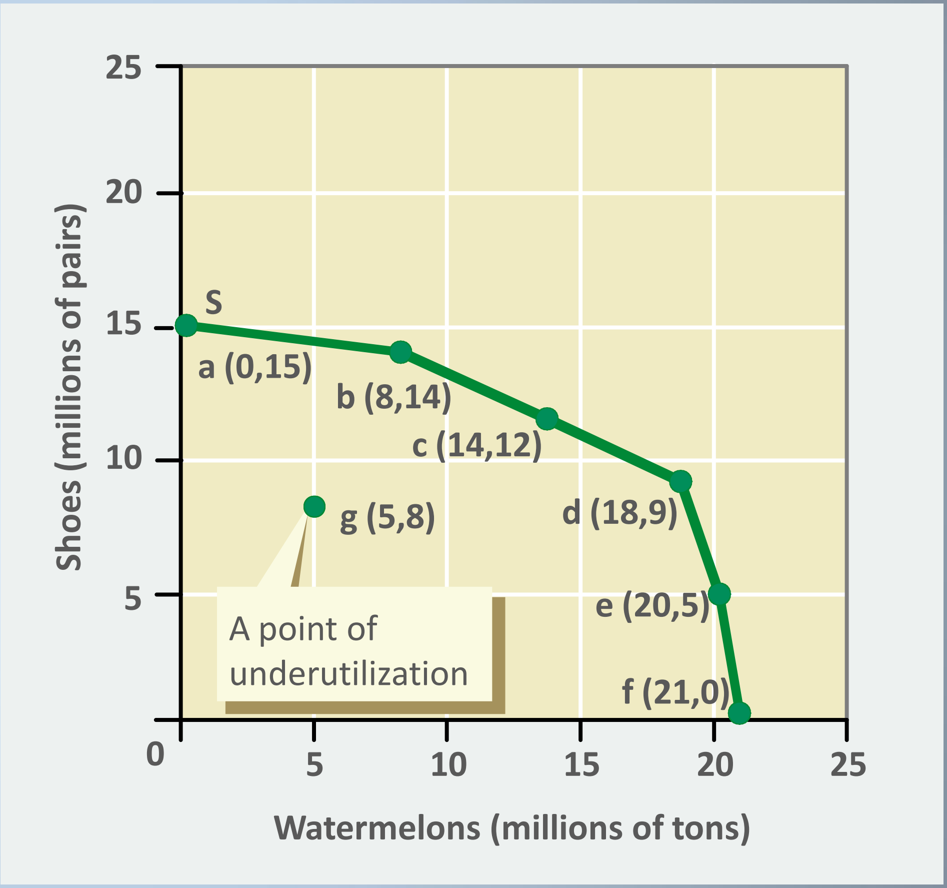
- Almost all variations in living standards are explained by differences in countries' productivities.
- ***Productivity*** is the amount of goods and services produced from each hour of a worker's time.
- The standard of living may be measured in different ways.
  - by comparing personal incomes
  - by comparing the total market value of a nation's production

Efficiency

- ***Efficiency*** means getting the maximum output of a good from the resources used in production.
- Every point on a production possibilities curve is **efficient**.
- Because all the points along the curve represent maximum output levels, they are called ***efficient points***.
- A movement between any two **efficient points** on the curve means that more of one product is produced only by producing less of the other.

Efficiency

An economy producing output levels on the **production possibilities frontier** is operating efficiently.



Productive Efficiency

the production of any particular mix of goods and services in the least costly way

Efficient Resource Allocation

- Resource Allocation
  - A market system, with its fully changing prices, ensures that resources go to the uses that consumers value most highly.
- Market Problems
  - Imperfect competition between firms in a market can affect prices and consumer decisions.
  - ***Spillover costs***, or externalities, are costs of production, such as air and water pollution, that *spill over* onto people who have no control over how much of a good is produced.
  - If buyers and sellers have imperfect information on a product, they may not make the best purchasing or selling decision.

Inefficiency

- A **production possibilities curve** shows potential output, not necessarily actual output.
- If we are inefficient, actual output will be less than the potential output.

Inefficiency

- Countries may end up inside their **production possibilities curve** if resources are inefficiently combined.
- Such inefficiencies plagued centrally planned economies … such as China, for example.

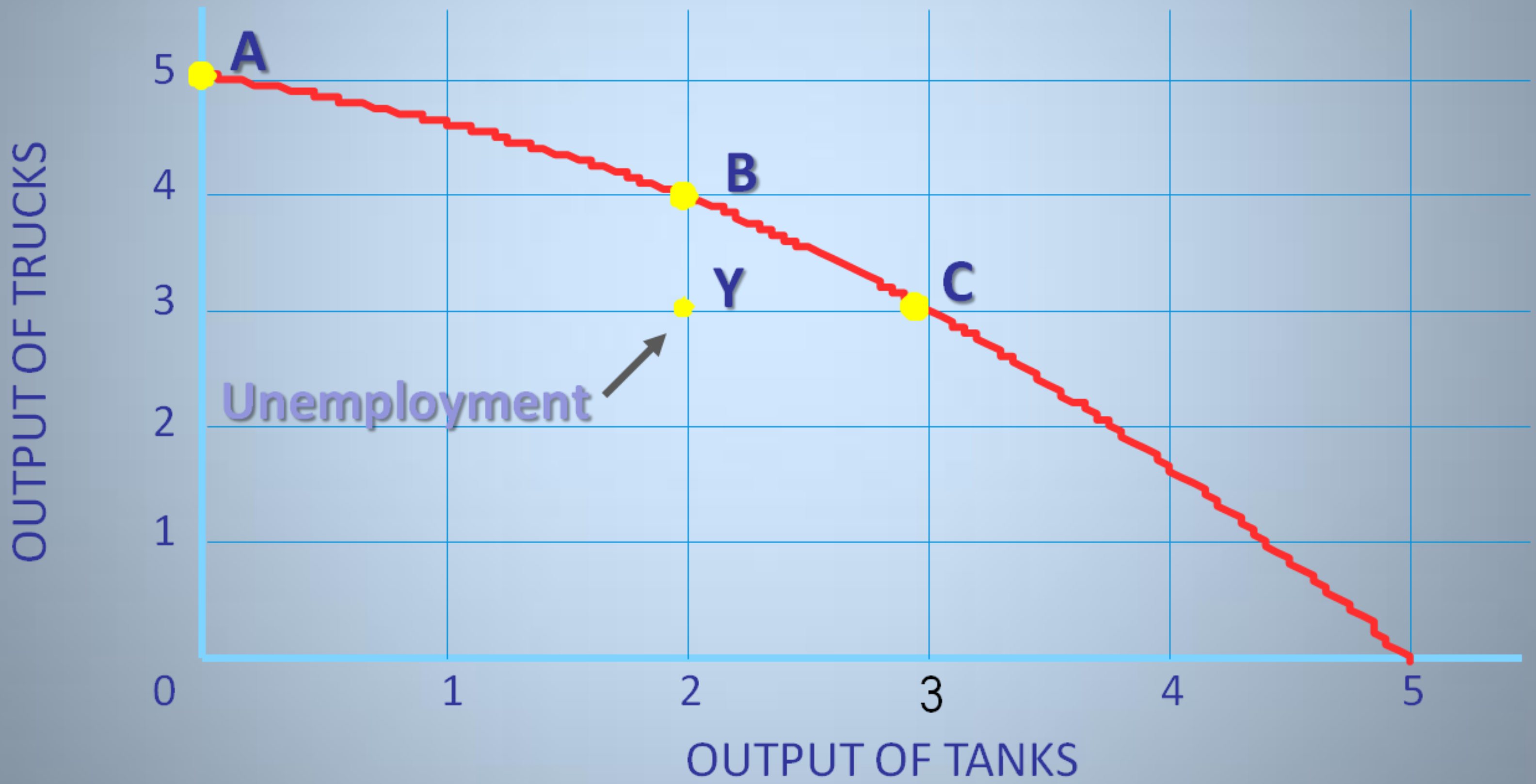
Unemployment

Remember that labor is a resource.

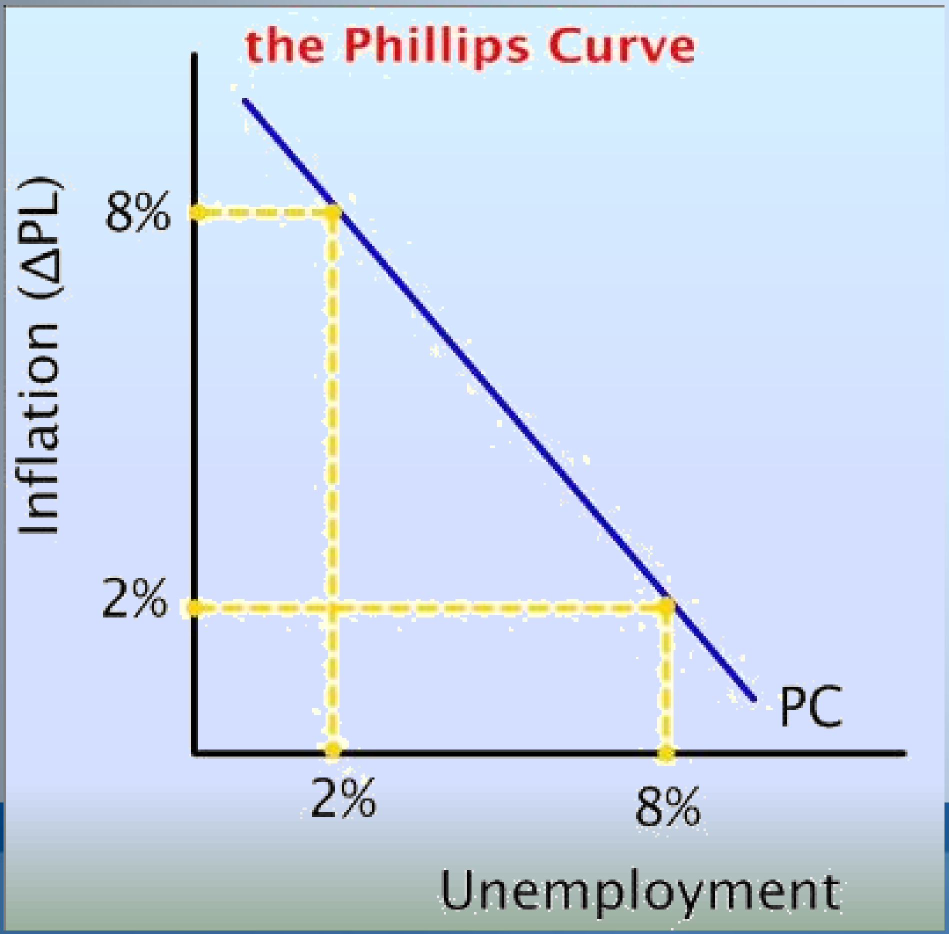
While there is always some unemployment, higher unemployment levels signal that not all available labor resources are being used.

Countries may end up inside their **production possibilities curve** if all available resources are not used.

Unemployment



Economic Concept #5: Society faces a short-run tradeoff between inflation and unemployment.



The Phillips Curve illustrates the tradeoff between inflation and unemployment.

Inflation

equals

Unemployment

Inflation

- ***Inflation*** is an increase in the overall level of prices in the economy.
- One cause of **inflation** is the growth in the quantity of money.
- Money is like any other product and when the government creates large quantities of money, the value of the money falls.

Back to Our Three Basic Decisions

- **Production possibilities** define the output choices confronting a nation:
  - **WHAT** to produce
  - **HOW** to produce
  - **FOR WHOM** to produce

WHAT

- There are millions of points along a **production possibilities curve**. Each one represents a specific mix of output.
- We can choose only one of these points at any time.

HOW

- There are lots of different ways of producing goods and services.
- Someone has to make a decision about which production methods to use.

FOR WHOM

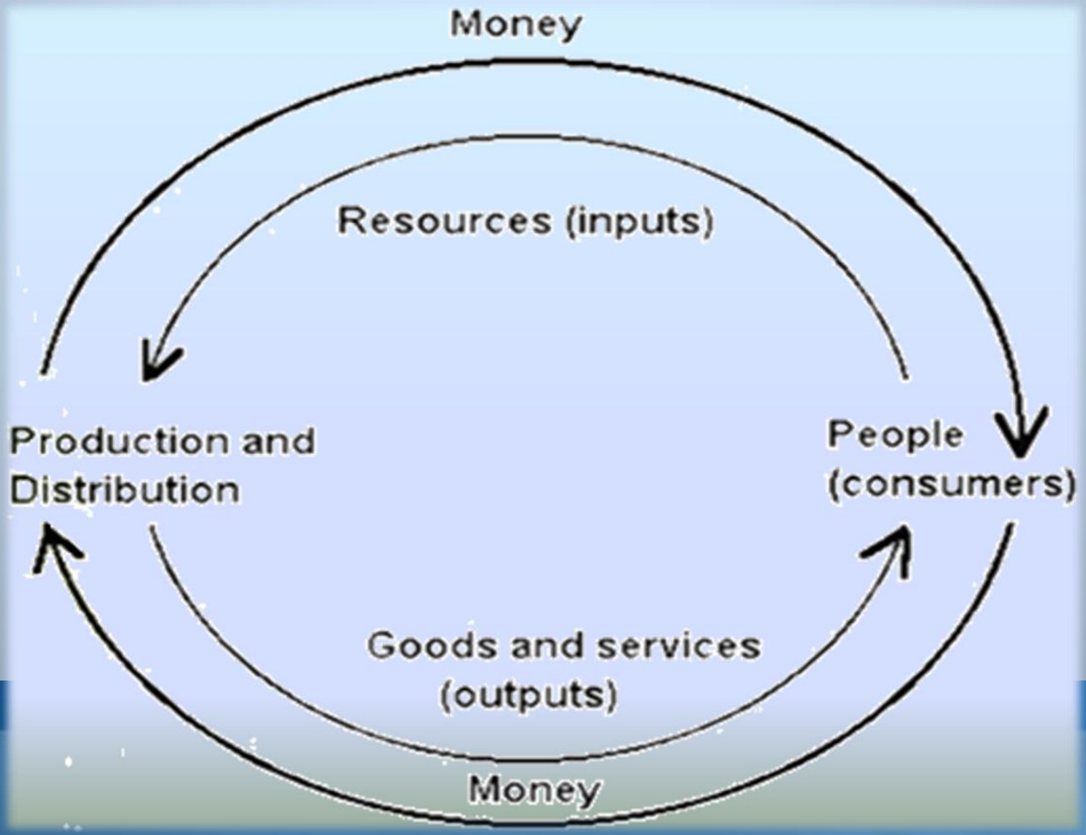
Who is going to get the output produced? And who decides?

The Mechanism of Choice

An economy is largely defined by how it answers the WHAT, HOW and FOR WHOM questions.

Economic System

An ***economic system*** is the way in which a society decides the answers to those questions



Economic Systems and Institutions

- How people cooperate is governed by written and unwritten rules.
- As the rules change, **incentives** and people's behaviors change.
- People create economic systems and institutions that influence individual choices and **incentives**.
  - **Systems** – Traditional, Command, Market, Mixed (Transitional or Emerging)
  - **Institutions** – Political, Legal, Financial, etc.

Continued in *Economics: Core Concepts Part III*