

Production Possibility Frontiers

Note Pack

Key Terms

Production Possibility A curve that shows the maximum level of output of two goods or

Frontier (PPF) services in an economy when all resources are *fully and efficiently employed*.

Capital Goods Goods used in the production of consumer goods

Consumer Goods Goods produced for consumption of households

Human Capital The value of the productive potential of an individual, group or workforce

Positive Statement An objective statement that is a fact, and can be amended or proved true or false

Normative Statement A subjective statement, based on opinion or containing a value judgment, which cannot be proved or disproved.

Specialisation Where production is broken down into smaller, simpler tasks in order to concentrate production on specific goods or services

Division of Labour Specialisation by individual workers on individual processes.

Productivity Output per unit employed

Efficient Allocation of Resources Refers to the efficiency with which markets allocate resources. A market is allocatively efficient if it is producing the right goods for the right people at the right place

PPFs

The problems of Scarcity, Choice and Opportunity Cost can be shown on a _____ (_____), which shows the maximum level of output of two goods or services in an economy when all resources are **fully and efficiently** employed (or what a society **could** produce with its existing supply of resources and technology).

For example, let's imagine that we only produce consumer goods and capital goods in our society, and we have to choose what level of each we produce. If all resources are being used full and efficiently, we can't make any more capital goods without losing consumer goods. This is an example of _____.

This can be shown below:

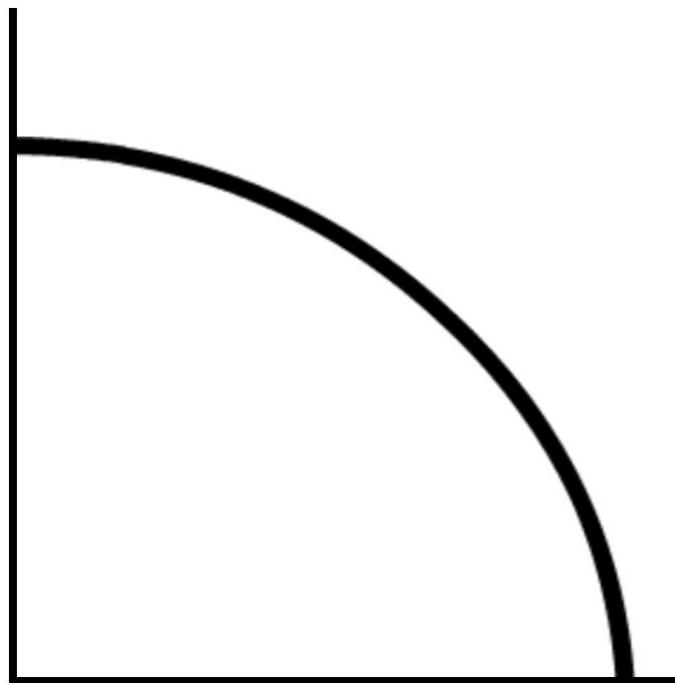
Points __, __ and __ represent that maximum possible combined outputs of the two types of goods. These points assume that all resources are being used efficiently, but this is not always the case.

When resources are not efficiently used, the economy won't produce on the PPF. Points __ and __ show where we would be in this case.

At these points, the economy could produce more of either type of good without having to sacrifice the other by simply employing the spare resources. But once we reach the frontier, we say that our _____ is being _____.

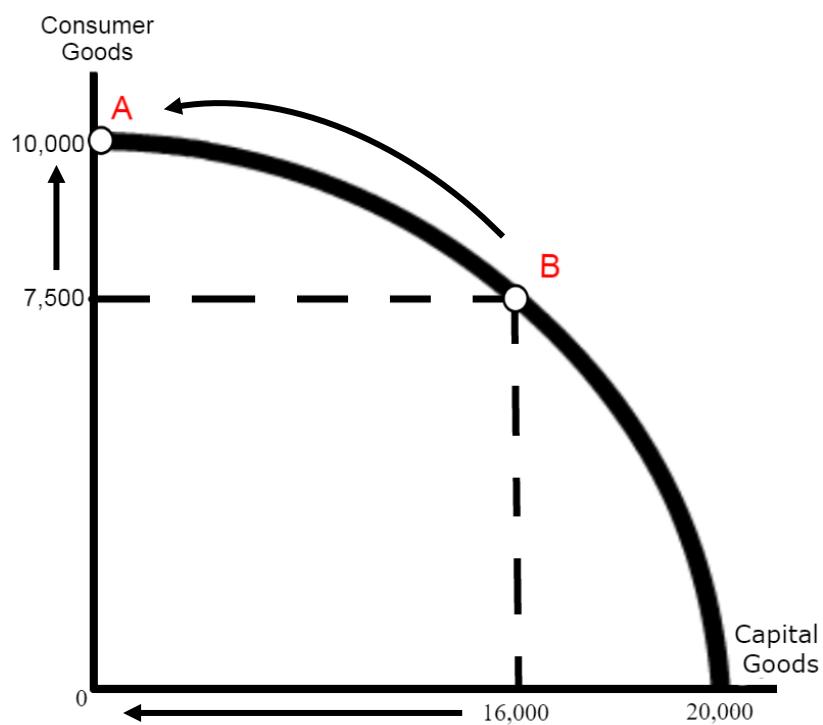
Realistically, when are resources not being used completely efficiently?

On the diagram below, draw two points that represent levels of production that are currently unobtainable. Below, explain why they are unobtainable.



PPFs and Opportunity Cost

When a country, person or company reaches productive capacity, they can only produce more of one good by sacrificing the production of another. In the example below let's assume we start at Point B, producing 7,500 consumer goods and 16,000 capital goods. If we want to produce more consumer goods, we can only do so by sacrificing capital goods.



In the above example, we are producing at Point B, and decide to move to Point A instead. What is the Opportunity Cost of doing this? How do you know this?

Opportunity Cost occurs whenever the economy changes resources, moving _____ the PPF.

Opportunity Cost does _____ occur when the economy changes its resources causing a movement _____ the PPF. In this case, we can produce more of one good without having to sacrifice the other. Indeed, more of both may be possible. This is shown below, where production moves from Point _____ to Point _____ .

Why is the PPF usually curved?

As more of one good is produced in the SR (short run), the opportunity cost (in terms of the other good) _____ because:

- Some resources are more suited to producing certain goods. i.e. more productive or efficient in some uses compared to others.
- The **law of diminishing returns** exists, meaning that as more units of some resources (e.g. workers) are added, in the SR, to fixed quantities of other resources (e.g. factories) the EXTRA output produced will _____.

What does a straight line PPF show?

This occurs when the opportunity cost of producing more of one type of good is constant, at all points **ALONG** the PPF.

Each unit is identically productive as the next unit of resources.

What might cause the PPF to shift outwards?

An economy's productive capacity will not remain constant in the _____ run, but will depend upon changes in resources, such as the size of the labour force, the stock of capital goods, the amount of raw materials, and improvements in technology. As this occurs the production possibility curve shifts outwards (_____ to _____).

This illustrates:

- _____
- An _____ in the _____ of the economy.
i.e. an _____ in POTENTIAL OUTPUT.
- More of all goods can be produced.

An increase in PRODUCTIVE CAPACITY from PPF to PPF_1 can be caused by:

- An _____ in the _____ of resources
e.g.
- An _____ or improvement in the _____ or _____ of resources
e.g.

Why might the PPF shift inwards (decreasing the productive capacity)?

The productivity capacity may decrease, causing a shift inwards on the PPF. This can be caused by:

- A fall in the size of the labour force due to:
 -
 -
 -
- Depletion (or pollution) of natural resources.
- A fall in investment of capital
- Destruction of resources due to:
 -
 -
 -

Why might the PPF swivel?

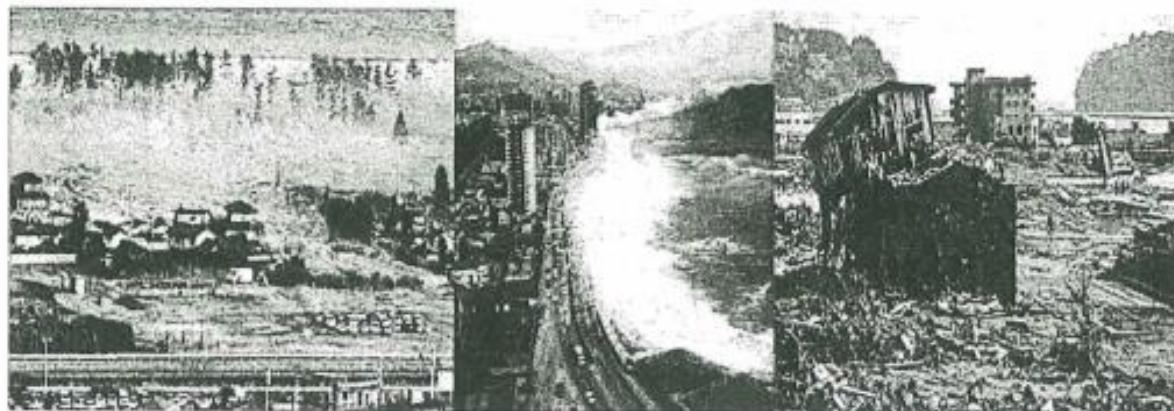
A shift from PPF to PPF_1 could be caused by:

- An increase in the productivity of our resources for making good _____ and a decrease in productivity of producing good _____.
- Some resources used to make good B are destroyed, whereas more resources for making good A are found.

Japan earthquake, tsunami kill hundreds

March 11, 2011

Edited from CBS News



TOKYO - A ferocious tsunami spawned by one of the largest earthquakes ever recorded slammed Japan's eastern coast Friday, killing hundreds as it swept away boats, cars and homes while widespread fires burned out of control.

The magnitude 8.9 offshore quake unleashed a 23-foot tsunami and was followed by more than 50 aftershocks for hours, many of them of more than magnitude 6.0. Japanese police say 200 to 300 bodies were found in Sendai, the closest major city to the epicenter.

Dozens of cities and villages along a 1,300-mile stretch of coastline were shaken by violent tremors that reached as far away as Tokyo, hundreds of miles from the epicenter.

"The earthquake has caused major damage in broad areas in northern Japan," Prime Minister Naoto Kan said at a news conference.

The highways to the worst-hit coastal areas were severely damaged and communications, including telephone lines, were snapped. Train services in northeastern Japan and in Tokyo, which normally serve 10 million people a day, were also suspended, leaving untold numbers stranded in stations or roaming the streets. Tokyo's Narita airport was closed indefinitely.

The quake was the strongest ever recorded in the highly seismically active archipelago.

Questions

1. What resources were destroyed by the tsunami? [3]
2. Define a 'production possibility frontier'. [3]
3. Using a PPF illustrate the effect of the tsunami on the economy. [3]
4. What do you think might be the opportunity cost of using government funding for reconstruction? [3]
5. What would cause the PPF of Japan to shift back to the right? [3]