

## PRODUCTION POSSIBILITY CURVES

**Opportunity cost** (or **economic cost** or **real cost**) is not the money we pay for the want, but the alternative want that we have to forego.

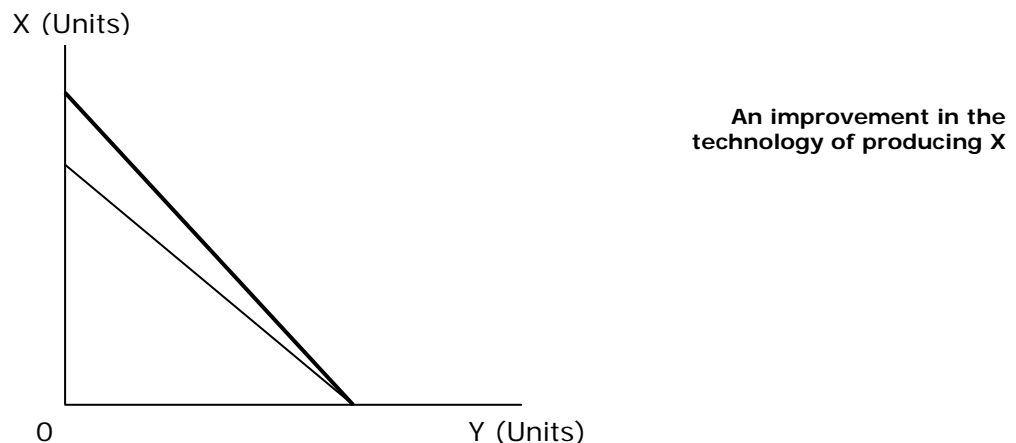
The issue of choice, and the concept of opportunity cost associated with the economic problem, can be illustrated by using the **production possibility frontier** (or curve). A production possibility frontier shows the various combinations of two alternative products that can be produced given a fixed level of technology and a fixed quantity of resources, when all resources are used to their full capacity,

Simplifying assumptions include:

- The economy produces only two goods
- The state of technology is assumed constant
- The quantity of resources available remains unchanged
- All resources are fully employed

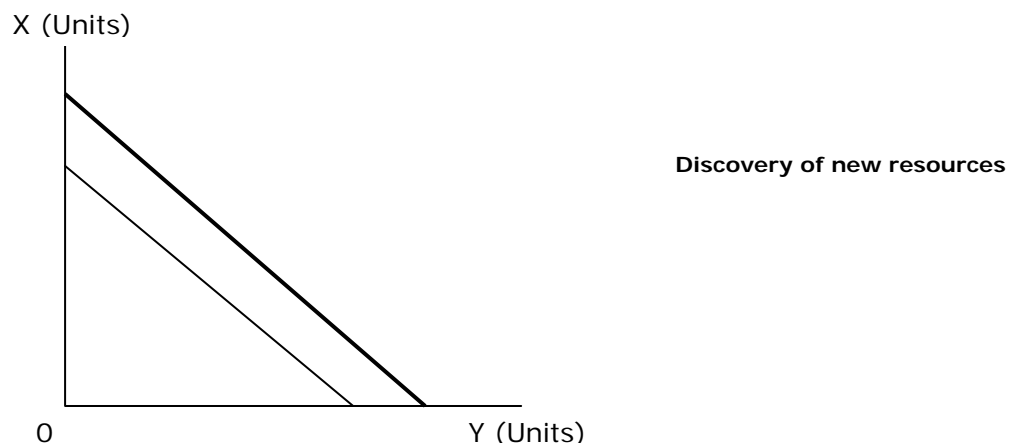
### NEW TECHNOLOGY AND THE FRONTIER

- With the application of **new technology**, we may be able to develop methods of production that are more efficient.
- An improvement in technology would shift the frontier outwards.



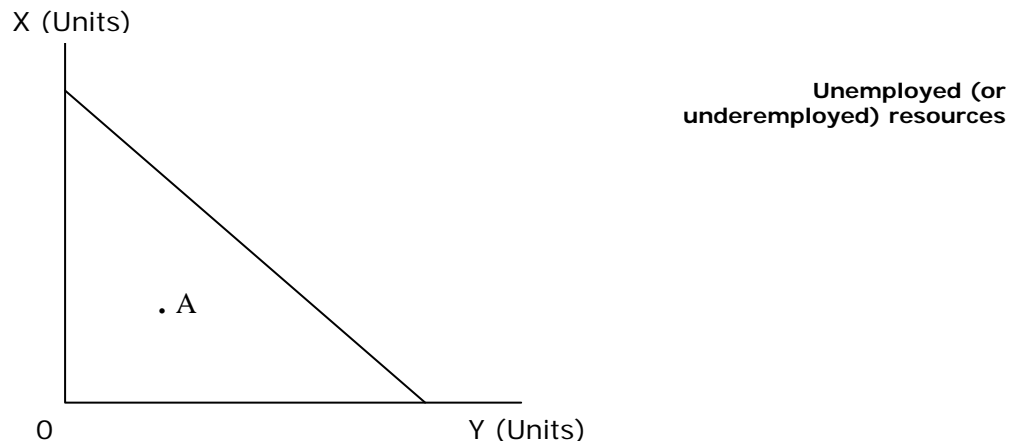
### NEW RESOURCES AND THE FRONTIER

- Anything that expands the inputs available for production, such as the discovery of new resources, or an expansion of the population through migration would change the production possibility frontier.
- These new inputs allow us to produce more of both goods.
- This would also push the production possibility frontier outwards.



## UNEMPLOYMENT AND THE FRONTIER

- If any of our resources are **not** fully employed, we would not change the frontier itself, but we would change our position in relation to it. Our economy would be producing at a point somewhere within (or underneath) the production possibility frontier [Point A].
- This situation indicates that we have an inefficient allocation of resources. We are not achieving a maximum satisfaction of wants with the minimum opportunity cost, which would deliver us an efficient outcome.



## THE SHAPE OF THE PRODUCTION POSSIBILITY FRONTIER

- In the real world, some resources are better suited to food production and others to clothing – we cannot expect to move resources from X to Y without any loss of productive capacity, and vice versa.
- When this is taken into account, the proper shape of a production possibility frontier is drawn concave to the origin.

