

Chapter Two

Choice,
Opportunity Costs
and Specialization

Introduction

- An economic system has to solve three coordination problems:
 - What, and how much, to produce.
 - How to produce it.
 - For whom to produce it.

Introduction

- All economic knowledge can be boiled down to a single phrase:

There ain't no such thing as a free lunch.

Introduction

- Every decision has an **opportunity cost** – the cost in foregone opportunities.

Opportunity Cost

- **Opportunity cost**: the value of the highest-valued alternative that must be forgone when a choice is made. It is the evaluation of a **trade-off**.
- **Marginal benefits and costs**: the benefits and opportunity costs associated with one additional unit of the good.

Introduction

- A production possibility curve is used to illustrate opportunity cost.

The Production Possibilities Model

- The production possibilities curve shows the trade-offs among choices we make.

The Production Possibility Table

- A **production possibility table** lists a choice's opportunity costs by summarizing what alternative outputs you can achieve with your inputs.

The Production Possibility Table

- **Output** – an output is simply a result of an activity.
- **Input** – an input is what you put into a production process to achieve an output.

The Production Possibility Curve for an Individual

- A **production possibility curve** measures the maximum combination of outputs that can be achieved from a given number of inputs.
- It slopes downward from left to right.

The Production Possibility Curve for an Individual

- The production possibility curve not only represents the opportunity cost concept, it also measures the opportunity cost.

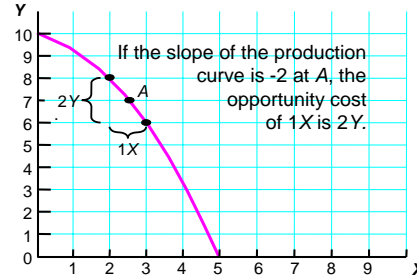
The Production Possibility Curve for an Individual

- The production possibility curve demonstrates that:
 - There is a limit to what you can achieve, given the existing institutions, resources, and technology.
 - Every choice made has an opportunity cost— you can get more of something only by giving up something else.

A Production Possibility Curve for a Society

- The production possibility curve is generally bowed outward.
 - Some resources are better suited for the production of some goods than others.

A Production Possibility Curve for a Society



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A Production Possibility Curve for a Society

- Comparative advantage** explains why opportunity costs increase as the consumption of a good increases.
 - Some resources are better suited for the production of some goods than to the production of other goods.

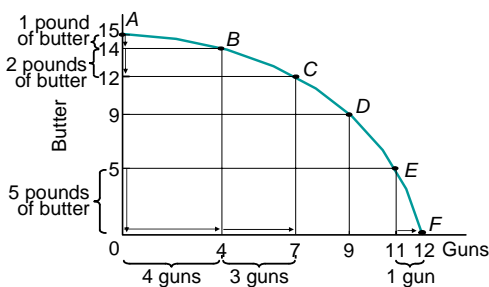
A Production Possibilities Table and Curve

% of resources devoted to production of guns	Number of guns	% of resources devoted to production of butter	Pounds of butter	Row
0	0	100	15	A
20	4	80	14	B
40	7	60	12	C
60	9	40	9	D
80	11	20	5	E
100	12	0	0	F

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A Production Possibilities Table and Curve



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Marginal Opportunity Cost

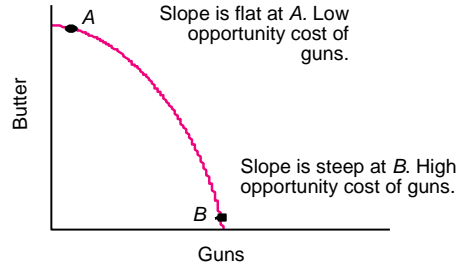
- The Production Possibilities Curve (PPC) illustrates the concept of **opportunity cost**. Each point on the PPC means that every other point is a forgone opportunity.
- The PPC bows outward because there are ever-increasing marginal opportunity costs to the production of any good.

Increasing Marginal Opportunity Cost

- The **principle of increasing marginal opportunity cost** states that opportunity costs increase the more you concentrate on an activity.
- In order to get more of something, one must give up ever-increasing quantities of something else.

This principle is discussed but Not Named in the Boyes Text

Increasing Marginal Opportunity Cost



Specialization

- Economic agents (individuals, firms, nations) will be better off if they choose to produce those things for which they have the lowest opportunity costs, and trade for those with higher costs.
- Agents do this because such choices involve giving up the least amount of other things.

Specialization & Trade

- **Comparative Advantage:** the ability to produce a good or service at a lower opportunity cost than someone else.
- **Law of comparative advantage:**
 - *proposition that the joint output of trading partners will be greatest when each good is produced by the low opportunity cost producer.*

Efficiency

- In production, we'd like to have **productive efficiency** – achieving as much output as possible from a given amount of inputs or resources.

Efficiency

- Efficiency involves achieving a goal as cheaply as possible.
- Efficiency has meaning only in relation to a specified goal.

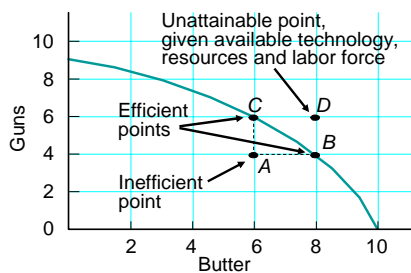
Efficiency

- Any point within the production possibility curve represents inefficiency.
- **Inefficiency** – getting less output from inputs which, if devoted to some other activity, would produce more output.

Efficiency

- Any point outside the production possibility curve represents something unattainable, given present resources and technology.

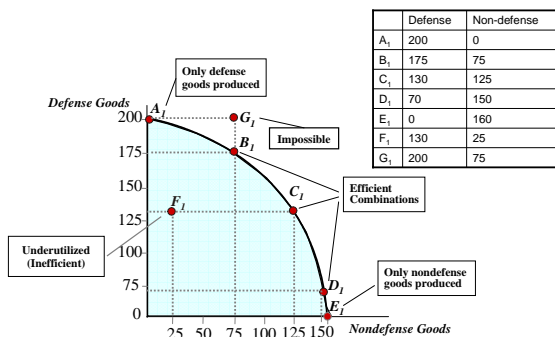
Efficiency and Inefficiency



Production Possibilities Curve

- The production possibilities curve shows the maximum quantity of goods and services that can be produced when the existing resources are used *fully and efficiently*.

Production Possibilities



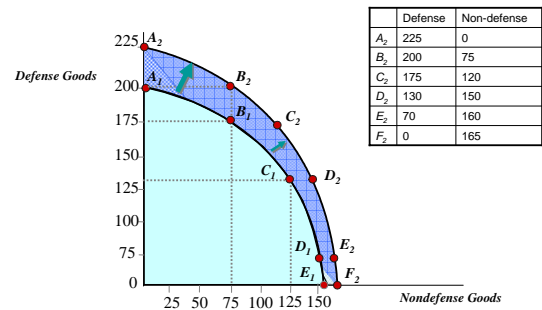
Shifts in the Production Possibility Curve

- Society can produce more output if:
 - Technology is improved.
 - More resources are discovered.
 - Economic institutions get better at fulfilling our wants.

Growth

- The PPC moves outward (growth occurs) as the result of:
 - Increased resources
 - Larger labor force
 - Change in labor force participation
 - Change in labor-leisure decision
 - Improved technology (innovation)
 - Expansion of capital stock
 - An *improvement in the rules* (laws, institutions, and policies) of the economy

A Shift of the PPC

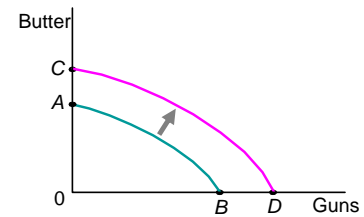


Shifts in the Production Possibility Curve

- More output is represented by an outward shift in the production possibility curve.

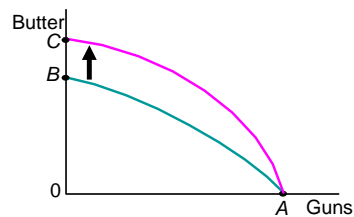
Shifts in the Production Possibility Curve

Neutral Technological Change



Shifts in the Production Possibility Curve

Biased Technological Change



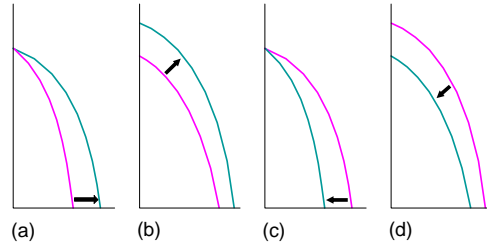
Distribution and Production Efficiency

- The production possibilities curve focuses on productive efficiency and ignores distribution.

Distribution and Production Efficiency

- In our society, more is generally preferred to less and many policies have relatively small distributional effects.

Examples of Shifts in the Production Possibility Curve



Finagle A Bagel



Specialization