The Daily Reveille

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# Hard Course

## *Faculty Senate identifies University's most difficult classes based on grades*

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Staff Writer

Every University student has at one time or another pondered which class is the most difficult at LSU.

The Faculty Senate has quantified this issue by ranking the University courses with the highest average numbers of D and F grades, as well as "W's" for classes.

Economics 2000 has the highest average DFW rate for the past five years with 34.4 percent, followed by History 1003 with 32.4 percent.

### Class Grades

he University's 10 hardest courses, according to the class percentages of D's and F's earned and W's taken:

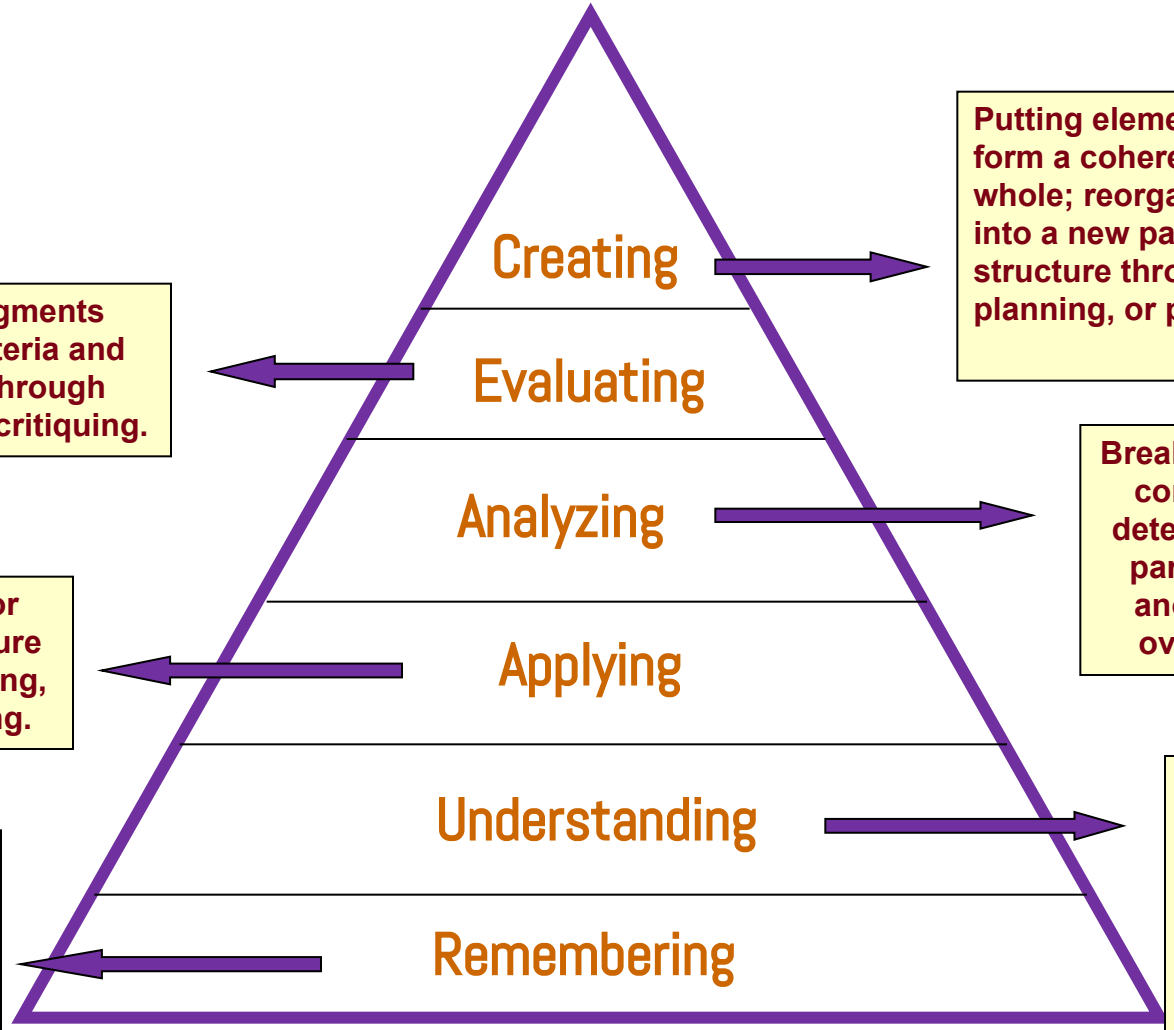
| Class: | 2005: | 2006: | 2007: | 2008: | 2009: | Average: |
|---|---|---|---|---|---|---|
| 1. ECON 2000 | 35.4 | 29.9 | 33.8 | 37.9 | 35.2 | 34.4 |
| 2. HIST 1003 | 32 | 39.1 | 37.1 | 27.7 | 26 | 32.4 |
| 3. MATH 1023 | 33.3 | 33.3 | 29.8 | 35.1 | 18.8 | 30.1 |
| 4. CHEM 1201 | 36.3 | 28 | 29.9 | 27.4 | 28.6 | 30.0 |
| BIOL 1201 | 29.3 | 30.2 | 27.9 | 29.8 | 31.1 | 29.7 |
| | | 19.7 | 29 | 31 | 24.1 | 27.6 |
| | | | | | 21.7 | 25.2 |

# How do I avoid being part of that 34%?

- ✔Do a quick scan of the chapter prior to the lecture . . . the LearnSmart assignments are a great way to get a 15 to 20 minute overview of the chapter.
- ✔Attend the lectures . . . we'll spend time on more difficult concepts and use other examples to explain the material.
- ✔Use the Connect assignments to gain understanding of the course material and validate knowledge of specific topics.
- ✔Do the homework assignment, easy 10% of your grade.
- ✔Don't cram for the tests.

# Bloom's Taxonomy

*This pyramid depicts the different levels of thinking we use when learning. Notice how each level builds on the foundation that precedes it. It is required that we learn the lower levels before we can effectively use the skills above.*




**Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing.**

**Making judgments based on criteria and standards through checking and critiquing.**

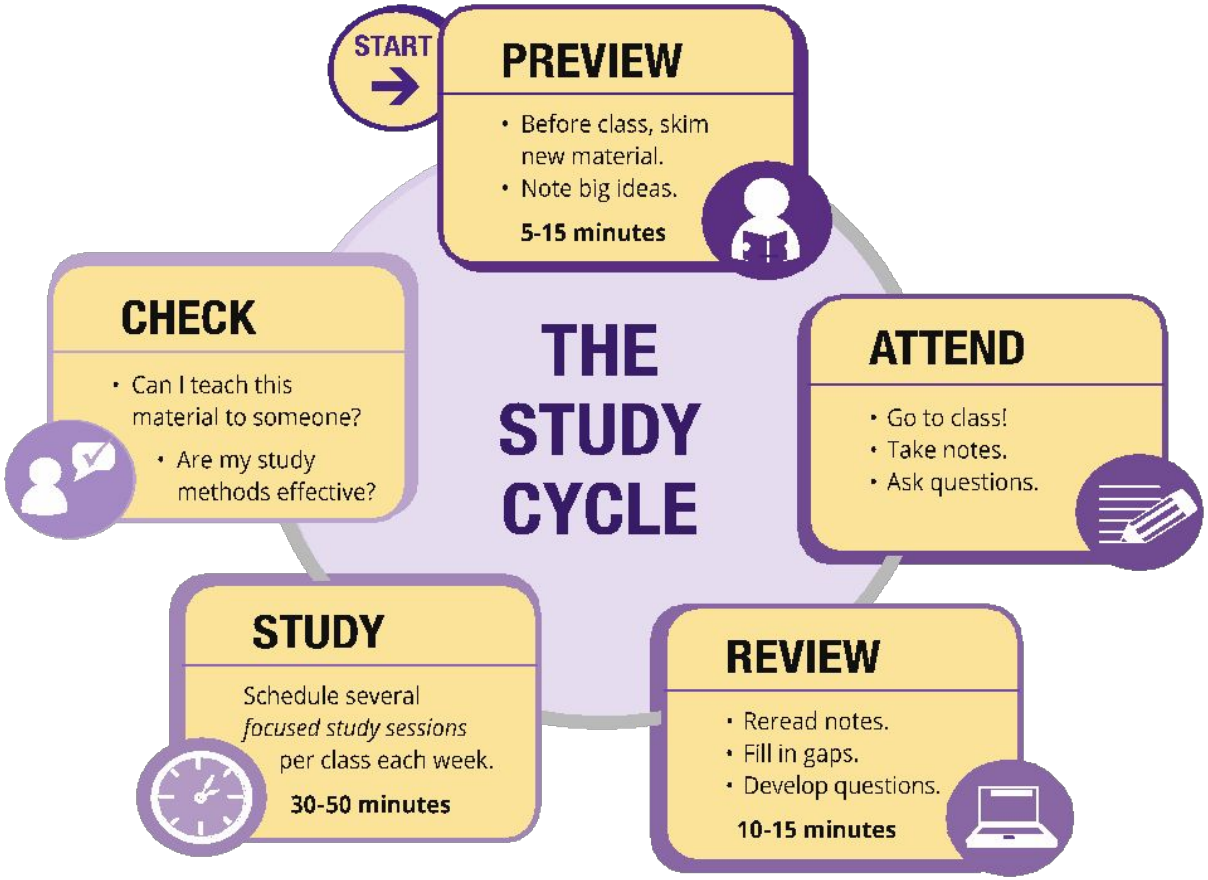
**Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure.**

**Carrying out or using a procedure through executing, or implementing.**

**Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.**

**Retrieving, recognizing, and recalling relevant knowledge from long-term memory.**

# The Study Cycle




Adapted from Frank Christ's PLRS system.
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# Why Study Economics?

## 1. To Learn a Way of Thinking

**Three fundamental concepts**:

- Opportunity cost -The best alternative that we forgo, or give up, when we make a choice or a decision.
- Marginalism - The process of analyzing the additional or incremental costs or benefits arising from a choice or decision.
- Efficient markets- A market in which profit opportunities are eliminated almost instantaneously.

# Why Study Economics?

## 2. To Understand Society

The study of economics is an essential part of the study of society.

***Industrial Revolution*** *The period in England during the late eighteenth and early nineteenth centuries in which new manufacturing technologies and improved transportation gave rise to the modern factory system and a massive movement of the population from the countryside to the cities.*

## 3. To Be an Informed Citizen

To be an informed citizen requires a basic understanding of economics.

# Economics:
## The Core Issues

CHAPTER
1

### LEARNING OBJECTIVES

*After learning about this chapter, you should know*

- LO1-1 What is scarcity.
- LO1-2 How scarcity creates opportunity costs.
- LO1-3 What the production possibilities curve represents.
- LO1-4 The three core economic questions that every society must answer.
- LO1-5 How market and government approaches to economic problems differ.

# The Goals of This Course

- To understand how **individuals and businesses** make economic decisions
- To determine how **markets** shape economic outcomes
- To examine the role that **government** can and does play in (re)shaping economic performance
- To understand how **we ourselves** can make better economic decisions

# Limits to Outputs

**Scarcity:** lack of enough resources to satisfy all desired uses of those resources.

- Limited resources requires choices and trade-offs to be made.
- The science of economics helps us frame these choices.

**Economics** is the study of how best to allocate scarce resources among competing uses.

# What Economics Is All About

## Micro vs. Macro

**Macroeconomics:** The study of aggregate economic behavior, of the economy as a whole.

- *The "big picture"*

**Microeconomics:** The study of individual behavior in the economy, of the components of the larger economy.

- *What are the goals of individual economic actors?*

# What Economics Is All About II

## Normative vs. Positive Analysis

- **Positive analysis**
  - focuses on *"what is"*
  - based on facts
- **Normative analysis**
  - focuses on *"what should be"*
  - based on opinions and judgments

# What Economics Is All About III

## Theory vs. Reality

- The economy is vast and complex.
- We model the economy and make simplifying assumptions.
  - ***Ceteris paribus:*** *the assumption of nothing else changing.*
- We want to develop a reasonable perspective on economic behavior and an understanding of basic principles.
  - *Useful in studying economics and in life!*

# Three Basic Decisions

## WHAT to produce;

- the point we choose on the production possibilities curve determines what mix of output gets produced.

## HOW to produce;

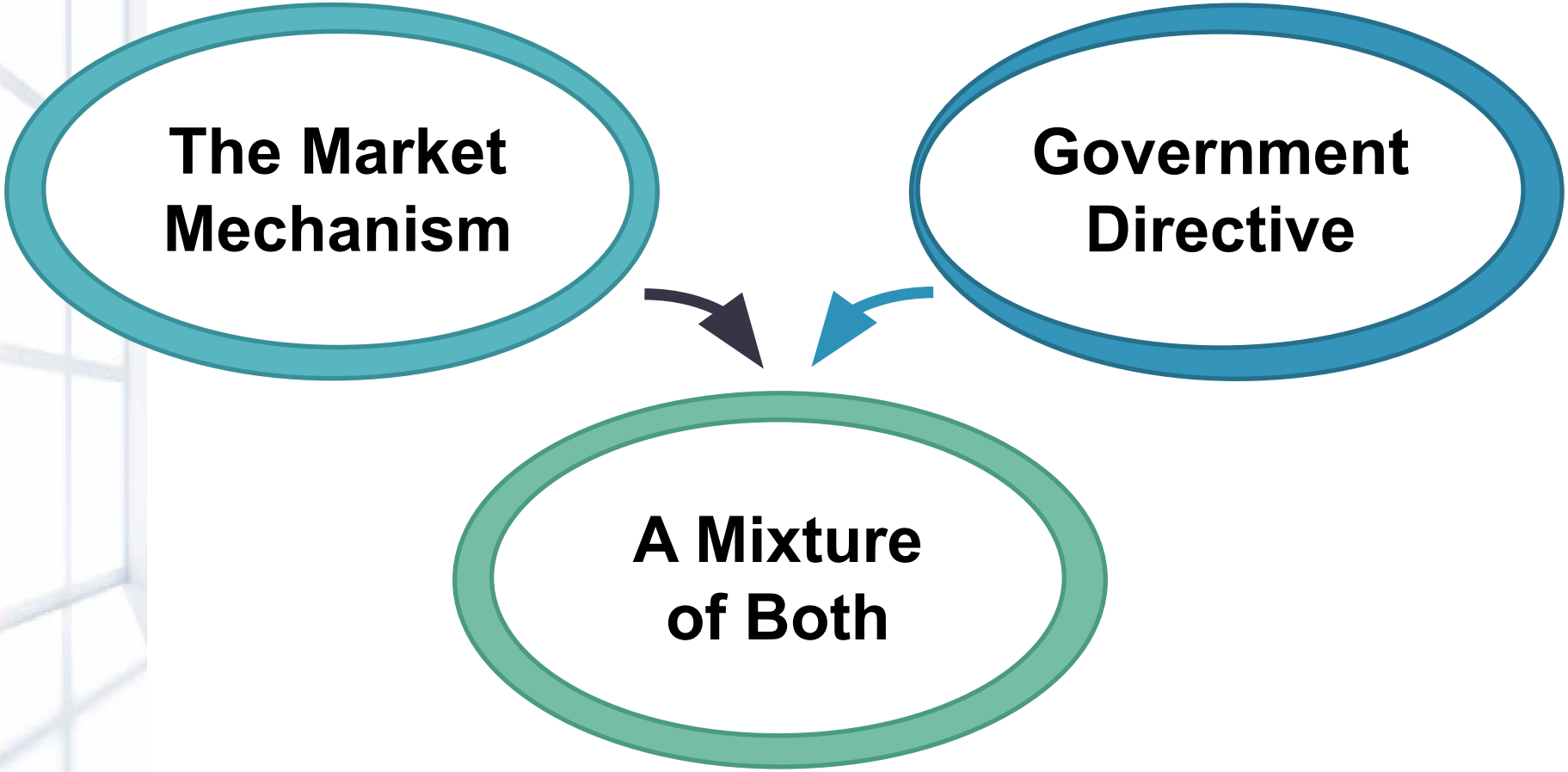
- someone must decide which production methods and technologies to use.

## FOR WHOM to produce;

- there must be a mechanism to determine whose wants and needs will be satisfied and who must go without.

# The Mechanisms of Choice

Basic ways to make economic choices:



# The Market Mechanism

Adam Smith called it **"the invisible hand"**

We now call this the **market mechanism;**

- *the use of market prices and sales to signal desired outputs and resource allocations.*

Believers in the superiority of the market mechanism advocate for **laissez faire;**

- *the doctrine of "leave it alone," of nonintervention by government in the economy.*

# The Market Mechanism II

Here is how the market answers the three basic questions:

- **WHAT to produce?** Produce goods and services that customers want.
- **HOW to produce?** Profitably; produce goods and services while keeping production costs low.
- **FOR WHOM to produce?** Produce for those who are both willing and able to pay for it.

# A Mixture of Both (A Mixed Market)

In general, the market is **highly efficient** in production of many goods and services but government:

- maintains overall balance in the economy.
- acts when the market outcome is suboptimal (e.g., market failure).
- provides some goods and services (e.g., public goods) and regulates production for safety.
- acts to address excessive inequalities.

# Government Directive

- On the other hand, government could intervene and answer all three questions.
- Karl Marx and John Maynard Keynes advocated for government intervention, but to different degrees.
- Decisions about what, how, and for whom would be made by political leaders and bureaucrats.

# What Mix Is Best?

**Most economies have a <u>mixed market.</u>**

- Few countries have relied exclusively on either pure market or pure government to manage the economy.
- The *Index of Economic Freedom* categorizes nations by the extent of their actual market reliance.
  - *market-dominated economies rank high.*
  - *government-run economies rank low.*

# Market Failure and Government Failure

- If the market does not produce the mix of goods that society desires, **market failure** is said to occur.
- This provides an opening for government to step in.
- If government can move us closer to the mix society desires, the intervention is successful.
- However, government can do the opposite, or impose such high costs that a failure occurs (= **government failure**).

# Factors of Production

**Factors of production:** resource inputs used to produce goods and services

## Labor

skills and abilities of all humans at work

## Land

all natural resources

## Capital

final goods produced for use in further production

## Entrepreneurship

assembling of resources to produce new or improved products, technologies

# Opportunity Cost

When we choose to use resources to produce one thing, we must give up producing something else with those resources.

- *This trade-off comes with a cost!*

**Opportunity cost** is the most desired goods or services forgone to obtain something else.

- *These costs are associated with every decision.*

# Production Possibilities

Production possibility model illustrates the economic concepts of:

- scarcity
- tradeoffs
- opportunity costs

**Production possibilities:** the combinations of final goods and services that could be produced in a given time period with all available resources and technology.

# Production Possibilities Curve (PPC)

Let's simplify our discussion a bit with an island trip . . .

# You are dropped on a uninhabited island

- Hunt or gather during the daylight hours
- Only options are fish or fruit
- No tools

**Fish - 20 oz per day**

**Fruit - 30 oz per day**

*What is the cost of a fish or a piece of fruit?*

When you go **fishing**, what is the opportunity cost . . . the lost fruit

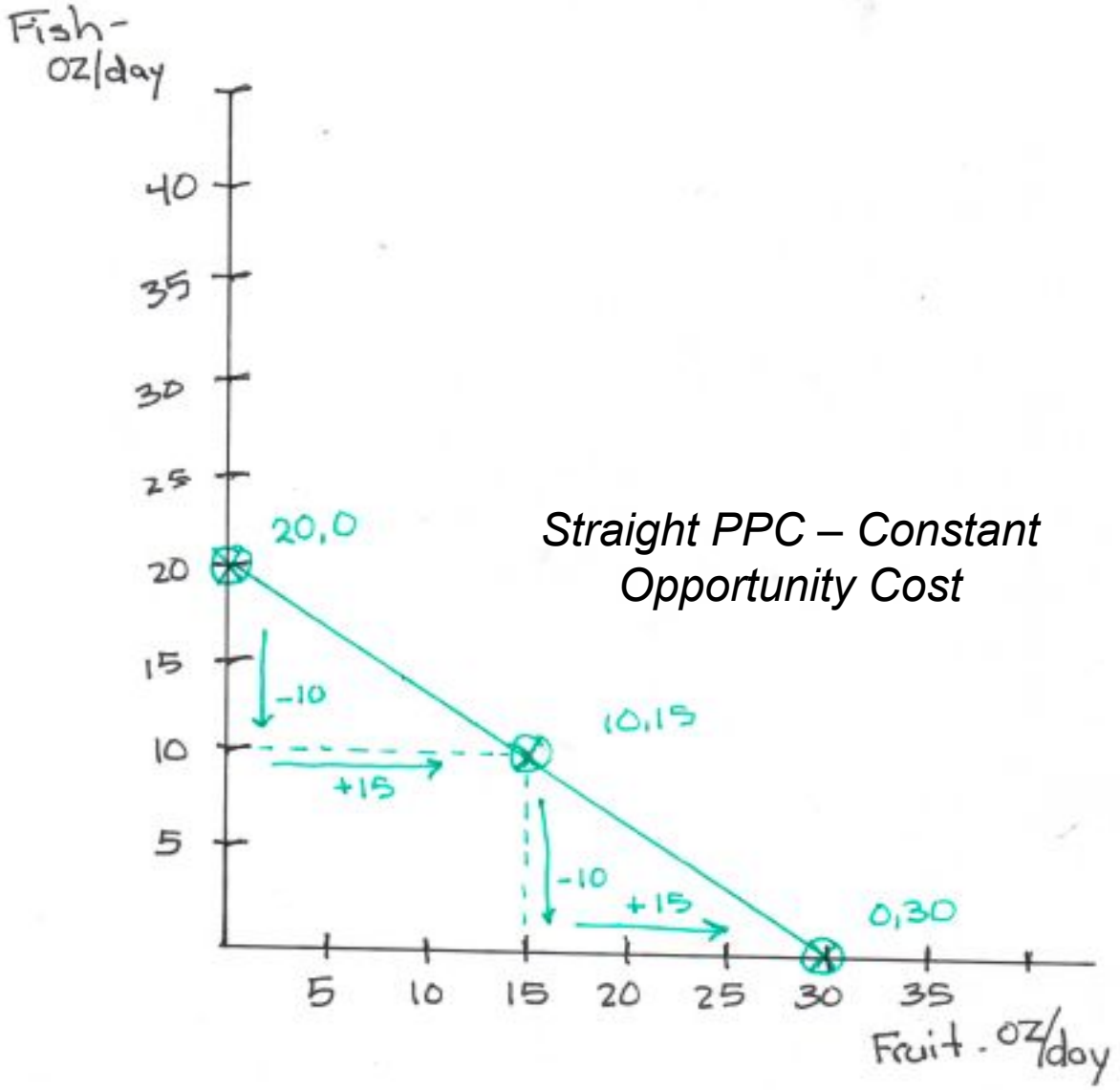
Likewise, when you gather **fruit** what is the opportunity cost . . . the lost fish

**Opportunity Cost = What you Lose / What you Gain**

**OC for Fish = Lost Fruit / Gain in Fish = 30/20 = 1.5 oz of fruit**

**OC for Fruit = Lost Fish / Gain in Fruit = 20/30 = 2/3 oz of fish**

# 1-Person Production Possibilities Curve




*Straight PPC – Constant Opportunity Cost*

What if we add a second person to our island, but one that doesn't do as well gathering Fruit . . .

**Fish - 20 oz per day**

**Fruit - 10 oz per day**

**Opportunity Cost = What you Lose / What you Gain**

**Person 1**

OC for Fish = Lost Fruit / Gain in Fish = 30/20 = **1.5 oz of fruit**

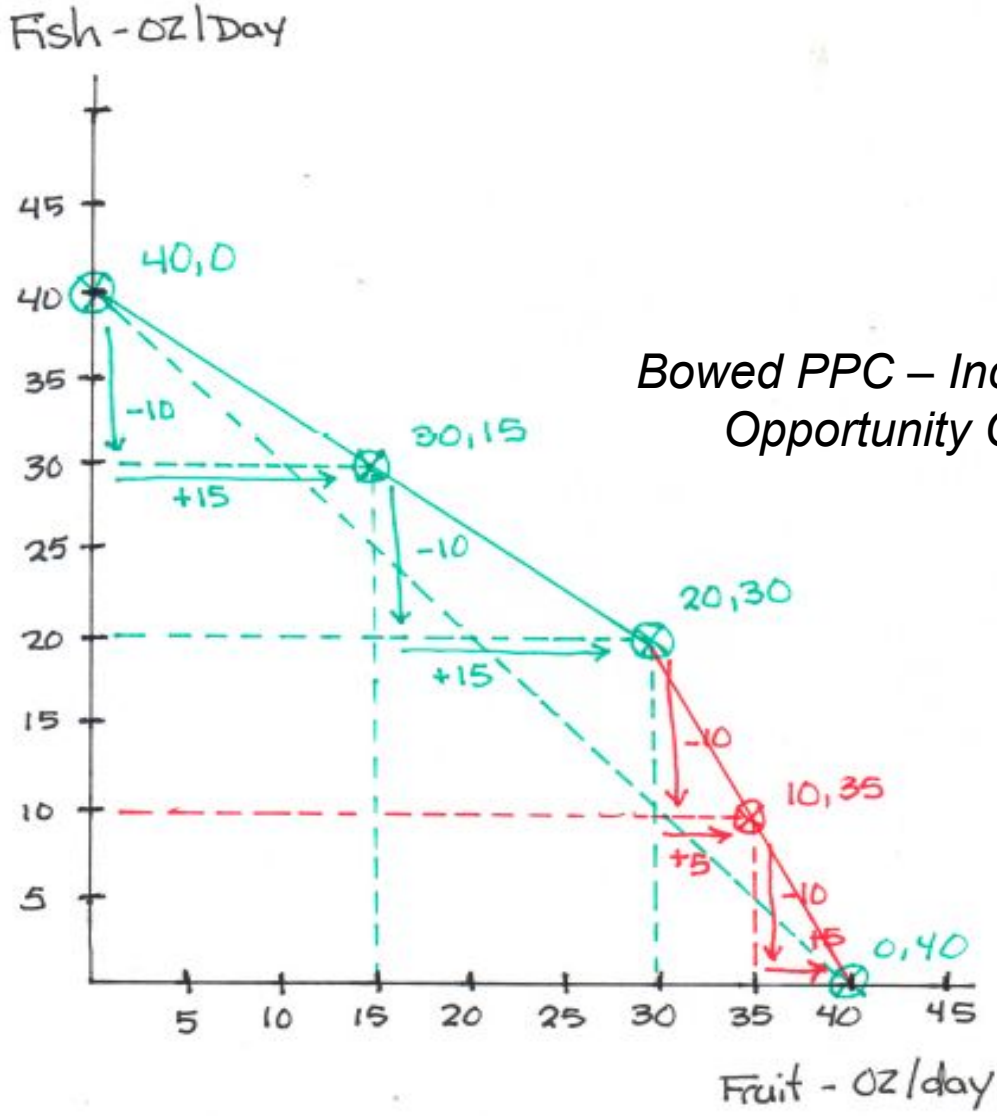
OC for Fruit = Lost Fish / Gain in Fruit = 20/30 = **2/3 oz of fish**

**Person 2**

OC for Fish = Lost Fruit / Gain in Fish = 10/20 = **1/2 oz of fruit**

OC for Fruit = Lost Fish / Gain in Fruit = 20/10 = **2.0 oz of fish**

# 2-Person Production Possibilities Curve




*Bowed PPC – Increasing Opportunity Cost*

**Absolute Advantage** – The ability for a country to produce a specific good with fewer resources (per unit of output) than other countries.

| OZ /Day | Fish | Fruit |
|---|---|---|
| Person #1 | 20* | 30 |
| Person #2 | 20* | 10 |

* tied

**Comparative Advantage** – The ability for a country to produce a specific good at a lower opportunity cost than its trading partners.

| Opportunity Cost | Fish | Fruit |
|---|---|---|
| Person #1 | 1.5 | 2/3 |
| Person #2 | 1/2 | 2.0 |

# Production Possibilities Example

Production Possibility Schedule

| Point | Trucks | Tanks |
|---|---|---|
| *A* | 5 | 0 |
| *B* | 4 | 2.0 |
| *C* | 3 | 3.0 |
| *D* | 2 | 3.8 |
| *E* | 1 | 4.5 |
| *F* | 0 | 5.0 |

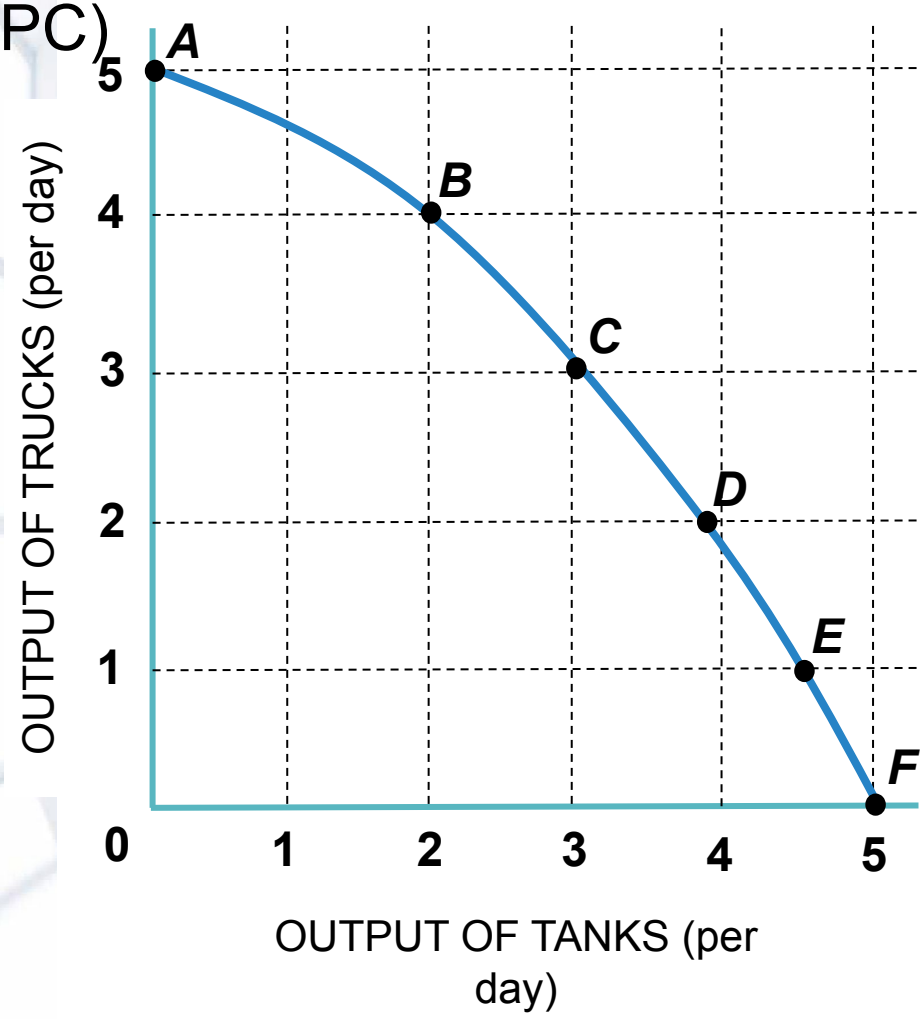
maximum output combos given resources

One factory can produce either trucks or tanks, or some of each with the limited resources available.

*Note:* To increase tank production, resources must be shifted away from truck production.

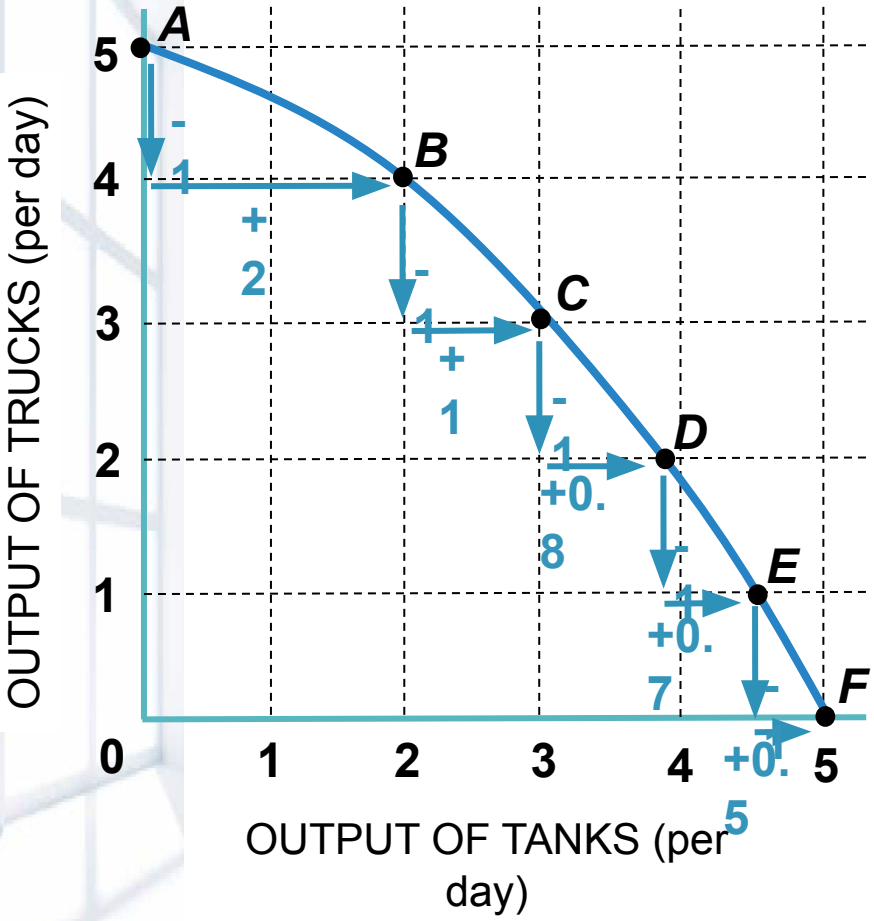
# Production Possibilities Example cont.

Production Possibility Curve (PPC)




- There is a limit to output
  **= scarcity**
- To produce more tanks, we must give up production of trucks
  **= trade-offs**
- The number of trucks given up to produce more tanks
  **= opportunity cost**

# Production Possibilities Example continued



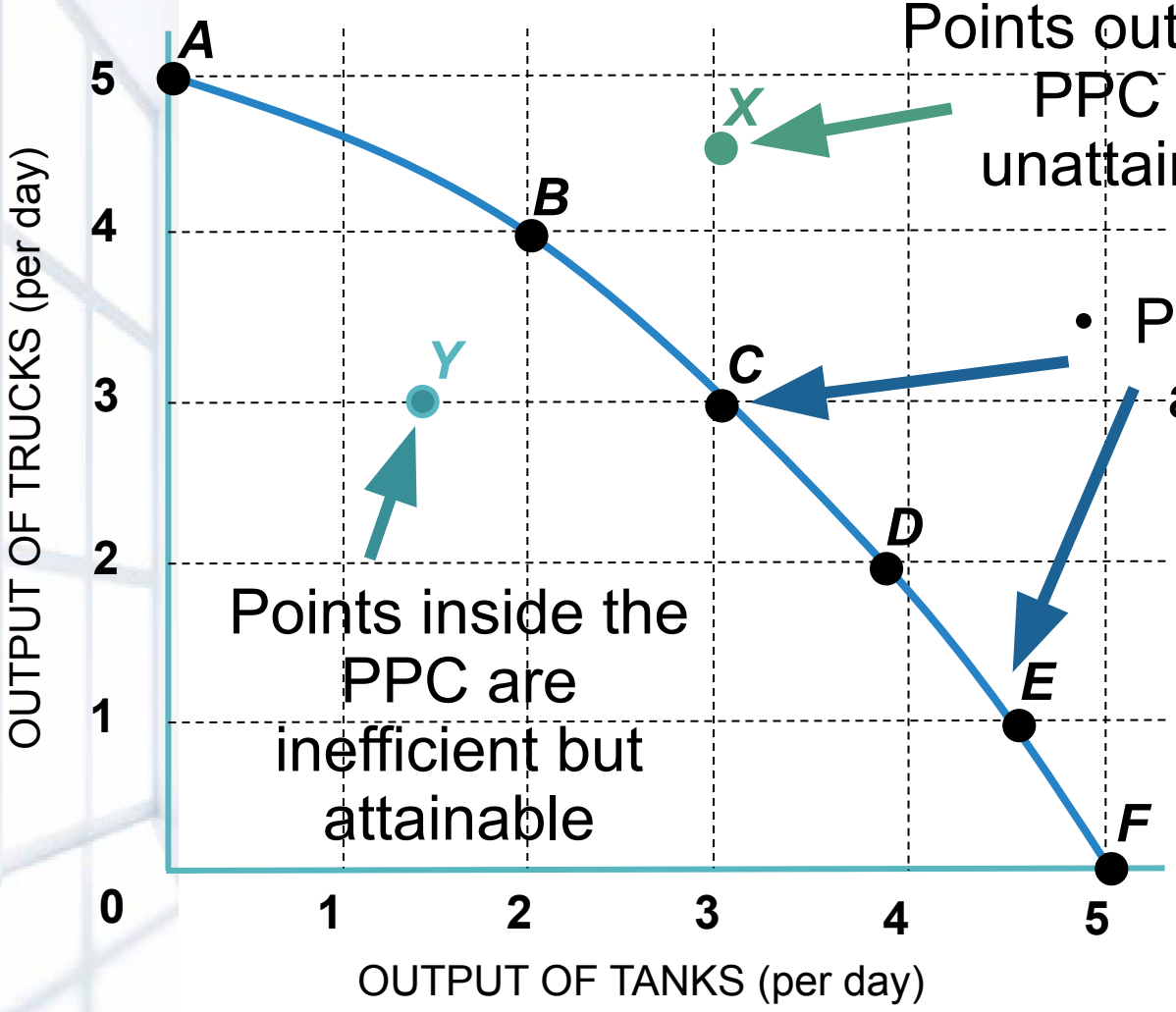

- <u>Calculating opportunity cost</u>
- Start producing only trucks (point ***A***) and move to point ***B***, we must give up 1 truck to produce 2 tanks
- ***B*** *to* ***C***, we must give up 1 truck to produce 1 tank
- ***C*** *to* ***D***, we must give up 1 truck to produce 0.8 tank

# Increasing Opportunity Costs

Each time we give up one truck, we get less back in tank production.

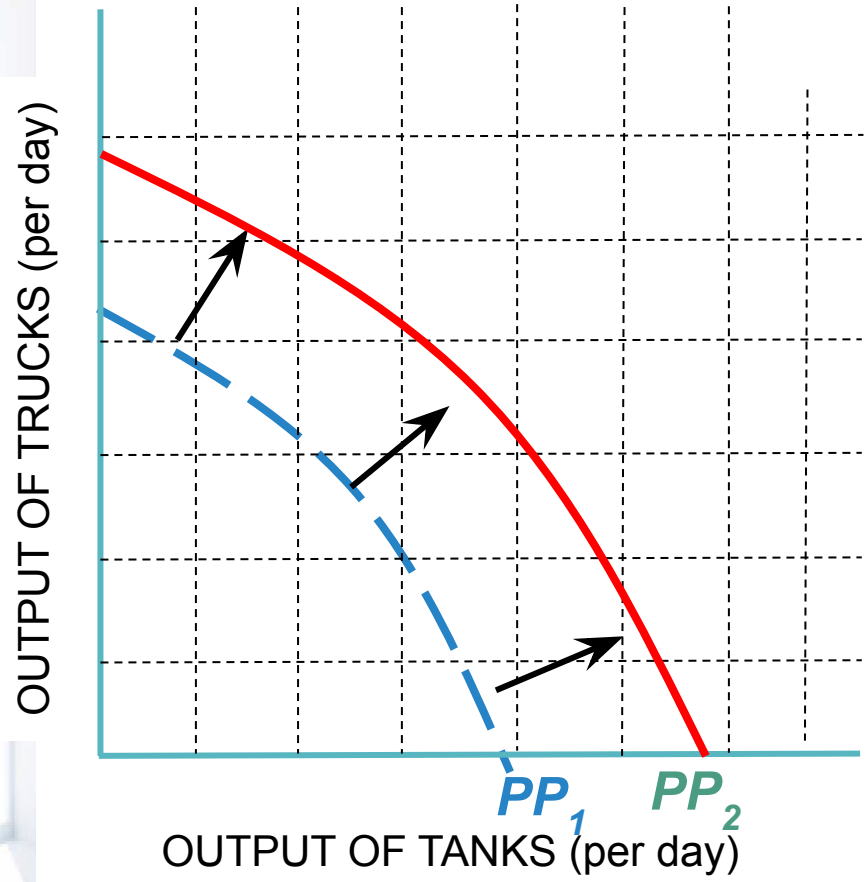
- **Why?** Resources are **specialized** to produce one good better than another.
  - The best tank resources are shifted to tank production first.
  - Later shifts involve resources less suited for tank production.
  - This causes the **bowed shape of the PPC** which represents the law of increasing opportunity cost.

# Efficiency and the PPC




**Efficiency:** maximum output of a good from the resources used in production

# Economic Growth and the PPC




**Economic growth;**

- an increase in output; an expansion of production possibilities.
- caused by increasing the available resources or by technology advancing.
- raises our standard of living, satisfies more wants and needs, and creates jobs.

# What Economics Is All About

- Understanding how economies function is the basic purpose of studying economics.
- Society and its leaders set the nation's economic goals.
- Economics focuses on the means of achieving those goals.

# Application: World View

Understanding the opportunity costs of military spending

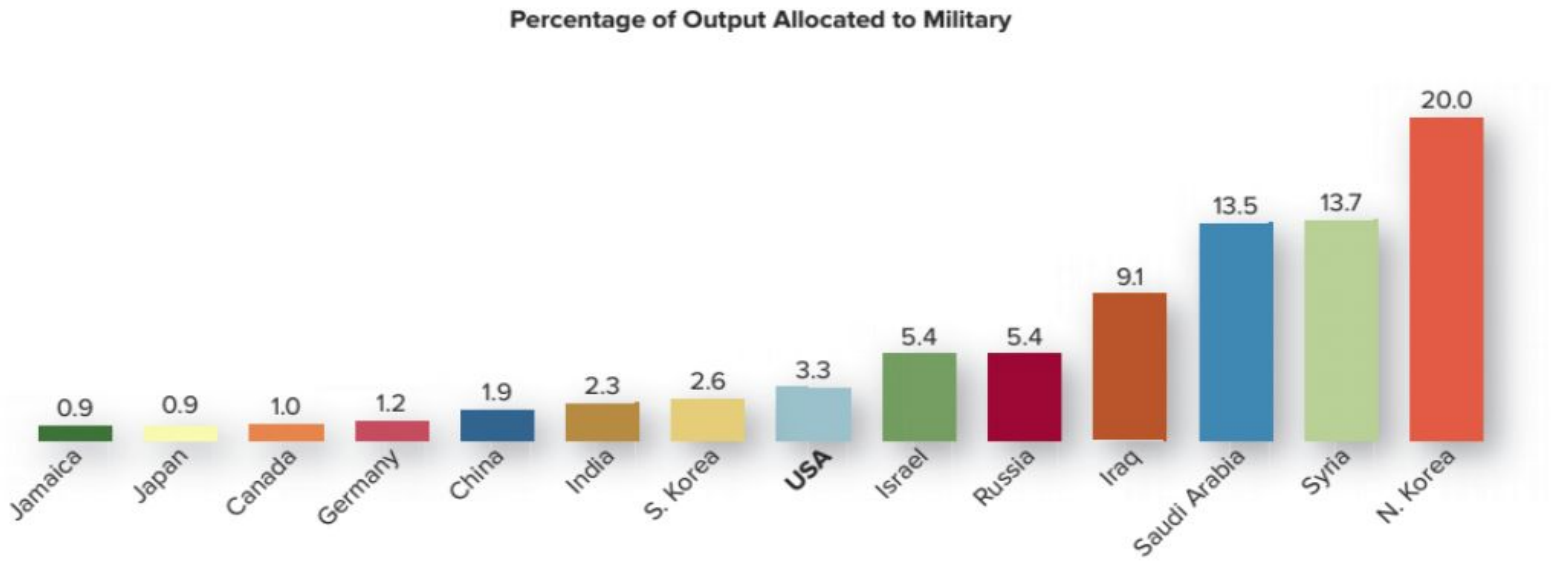



**FIGURE 1.3**

**The Military Share of Output**

The share of total output allocated to the military indicates the opportunity cost of maintaining an army. North Korea has the highest cost, using one fifth of its resources for military purposes. Although China and the United States have much larger armies, their military *share* of output is much smaller.

Source: Stockholm International Peace Research Institute and U.S. Central Intelligence Agency (2015 data).

# Application: The Economy Tomorrow

- Energy is always in demand and harnessing the sun is an exciting prospect to provide power for homes and cars.
- Understanding the opportunity costs of converting to solar power:
  - *trillions of dollars of resources may be needed for a full-scaled development of solar-power infrastructure.*
  - *What are the opportunity costs?*

# Issues to Ponder

*Lawns produce no crops and occupy more land (40 million acres) in the United States than any single crop, such as corn. This means the United States is operating inefficiently and hence is at a point inside the production possibilities curve.*

*Right? If not, what does it mean?*