Course: Foundations of Economics
Lecture 1: Introduction to Economics

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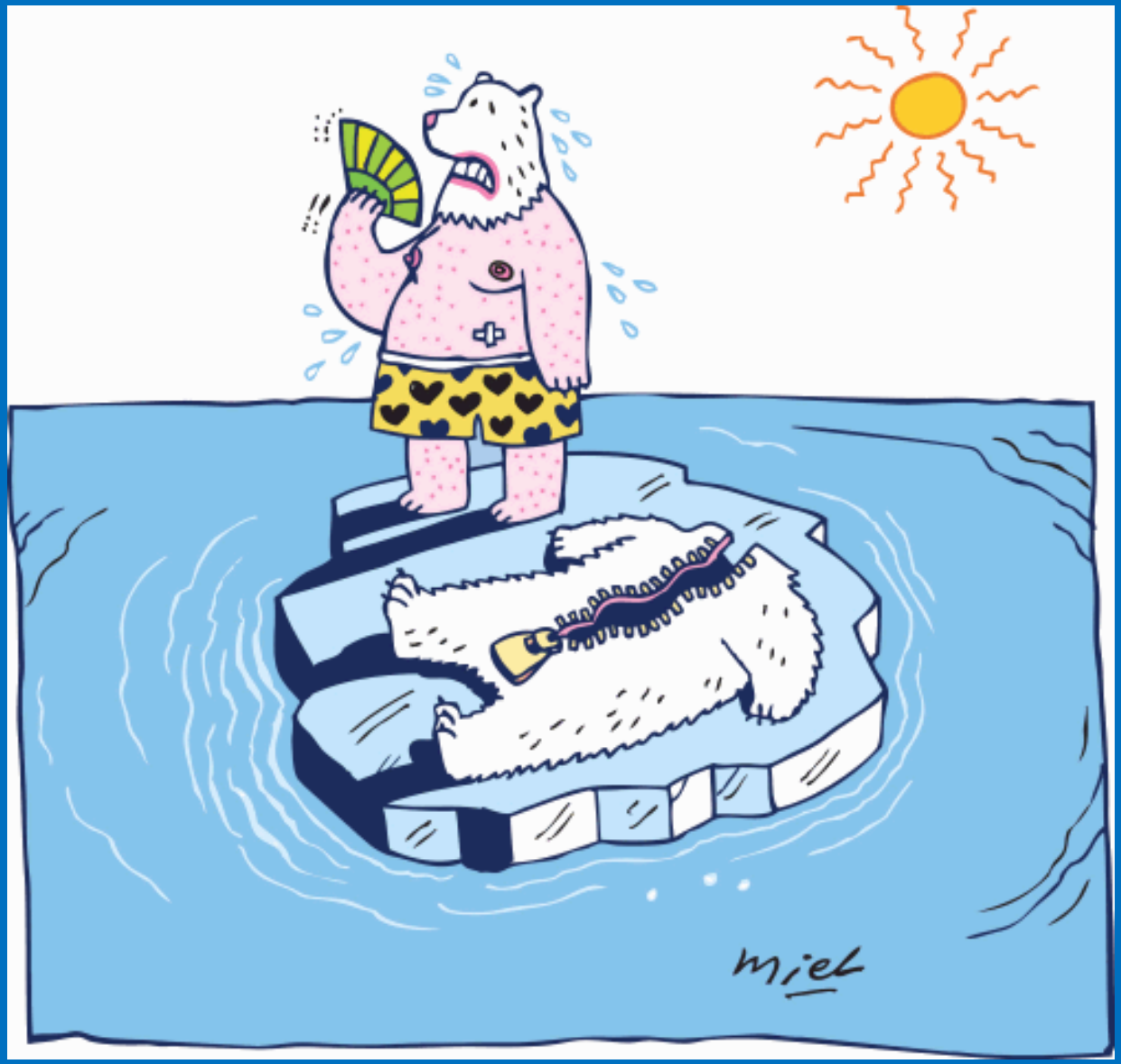


Getty images

Source: Global warming by EMAD HAJJAJ,
http://www.hajjajcartoons.com/

Topics

Introduction to Economics

Demand and Supply

Elasticity

Costs, Revenue and Supply

Unemployment

Inflation

Money and interest rates

Balance of Payments

Exchange rates

Externalities

Introduction to Economics

Lecture 1

FOUNDATIONS OF ECONOMICS

Scarcity, Choice, Opportunity Cost

Basic problem in economics:

- Resources are scarce or limited but our wants are unlimited

Resources, inputs or factors of production include:

- Land – natural resources
- Labor - workers
- Capital – factories, machines

Scarcity, Choice, Opportunity Cost

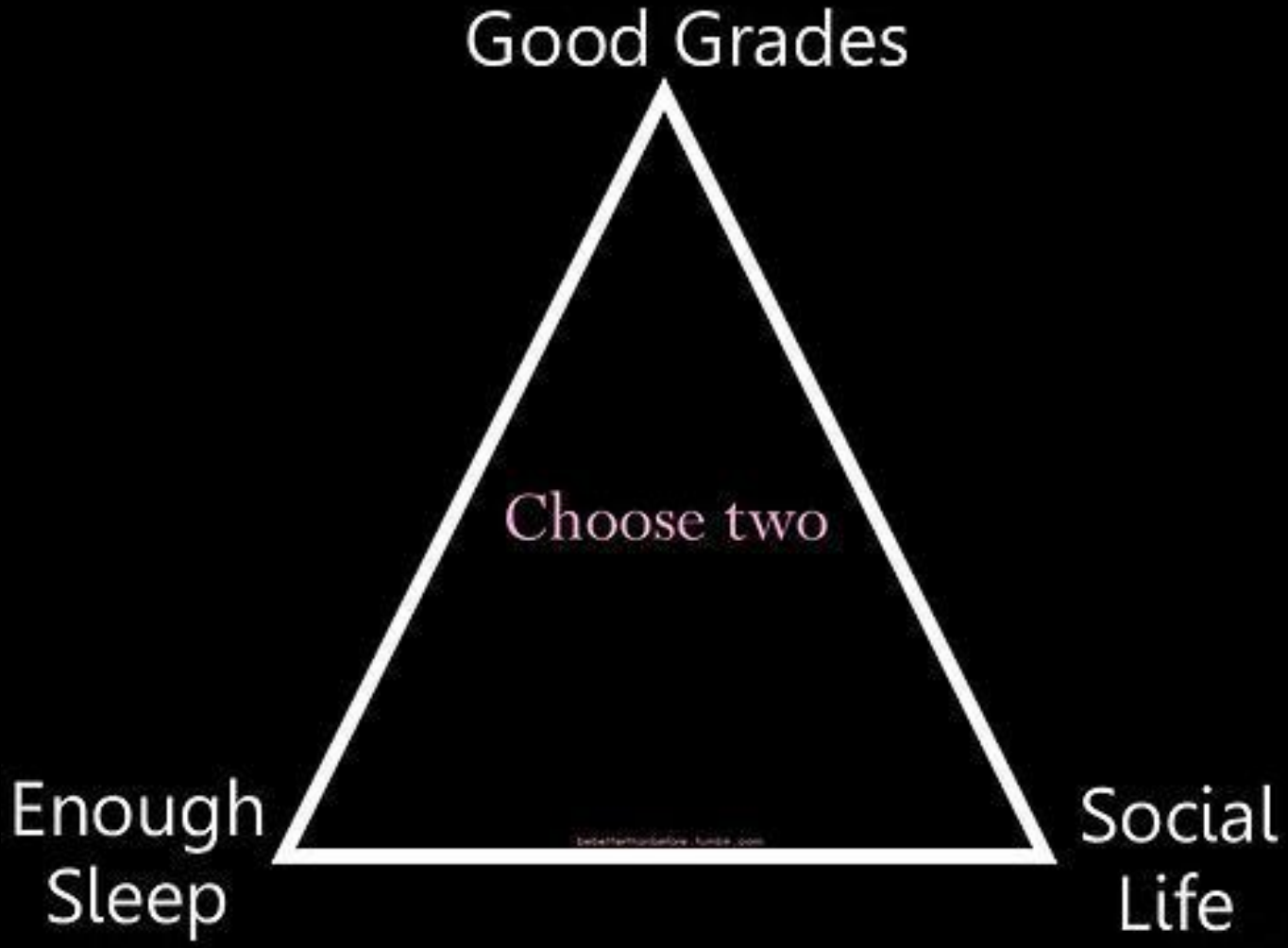
Since resources are scarce we must make choices

- From a limited set of possibilities
- But more of one thing means less of something else

Opportunity cost of a choice

- The value of the next best alternative that the decision forces the decision maker to forgo.

- Opportunity cost examples



Source: http://asieeeee.weebly.com/unit-5-graduation---a-new-life-begins.html

How Much Does It Really Cost?

Principle of opportunity cost

- Examines options available to households, businesses, governments and entire societies
- How do people make optimal decisions from among competing alternatives given limited resources?
- Optimal decisions are to be made based on opportunity cost calculation

Scarcity, Choice, Opportunity Cost

Opportunity Cost and Monetary Cost

- Difference between opportunity cost and market price
- In a well functioning market, goods that have a high (low) opportunity cost have a high (low) monetary cost.
- Opportunity costs and explicit costs may not be the same
  - Markets may function poorly
  - Some valuable items have no price tag
  - Value of your time
  - “Free” goods

Scarcity, Choice, Opportunity Cost

Optimal Choice: How do people/firms make decisions?

- We assume not simply satisficing

Optimal decision making

- Decisions made best serve objectives of decision maker
- Explicit or implicit comparison with possible alternatives
- Common method: **Marginal Analysis**

Scarcity & Choice: a Single Firm

Outputs

- Goods and services produced by a firm or economy

Inputs

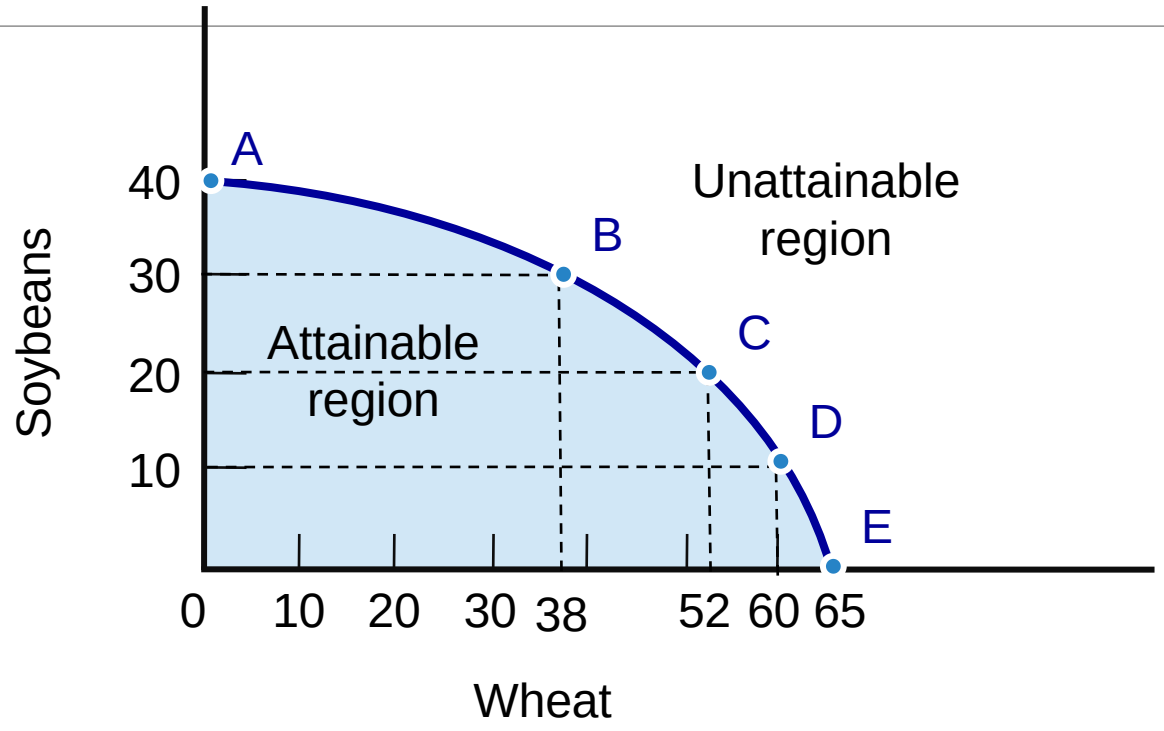
- Resources (Land, labor, Equipment) used to produce outputs

How does a farmer decide how much of two goods – soybeans and wheat to produce?

- Assume farmer has a given technology and fixed resources →

Figure 1

Production possibilities frontier for production by a single farmer



Source: Baumol & Blinder MACROECONOMICS (11th ed), page 43. 2009 Cengage Learning, inc.

Exercise 1

Production Possibilities Open to a Farmer

Soybeans (in bushels)	Wheat (in bushels)	Label in figure 1
40 000	0	A
30 000	38 000	B
20 000	52 000	C
10 000	60 000	D
0	65 000	E

What is the opportunity cost of the first 10,000 bushels of soybeans?

What is the opportunity cost of the second 10,000 bushels of soybeans?

Source: Baumol & Blinder MACROECONOMICS (11th ed), page 43. 2009 Cengage Learning, inc.

Scarcity & Choice: a Single Firm

Production possibilities frontier (PPF)

- Shows different combinations of two goods produced, given available resources and existing technology

Scarcity & Choice: a Single Firm

Production possibilities frontier (PPF)

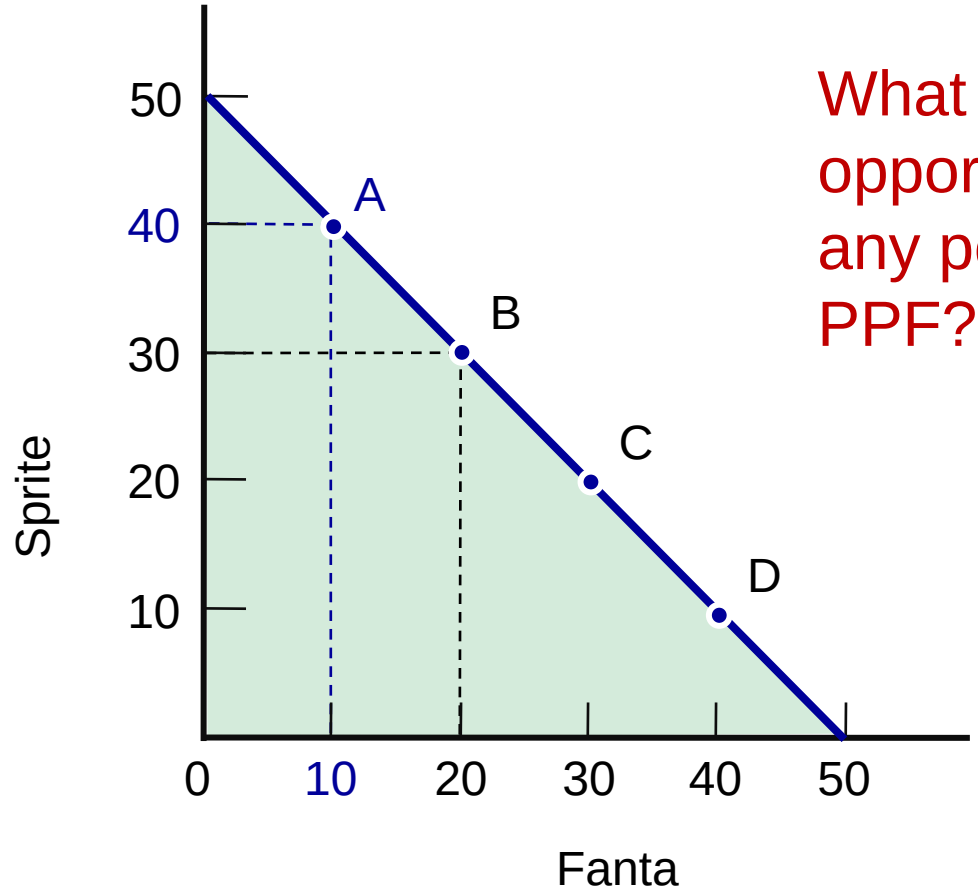
- Slope of the PPF is the opportunity cost
- Note the slope of the PPF is bowed outward. Why?

Principle of Increasing Costs

- Since resources tend to be specialized, OC's increase
- What would the PPF look like if resources not specialized?

Production Possibilities Frontier without Specialized Resources

Cold beverages example



What is the opportunity cost at any point on the PPF?

Source: Author's example

Scarcity & Choice: a Single Firm

Why is the principle of increasing costs the norm?

- Some inputs better suited to making one good rather than the other
- Firm must vary proportions of inputs since limited
- So PPF typically bows outward

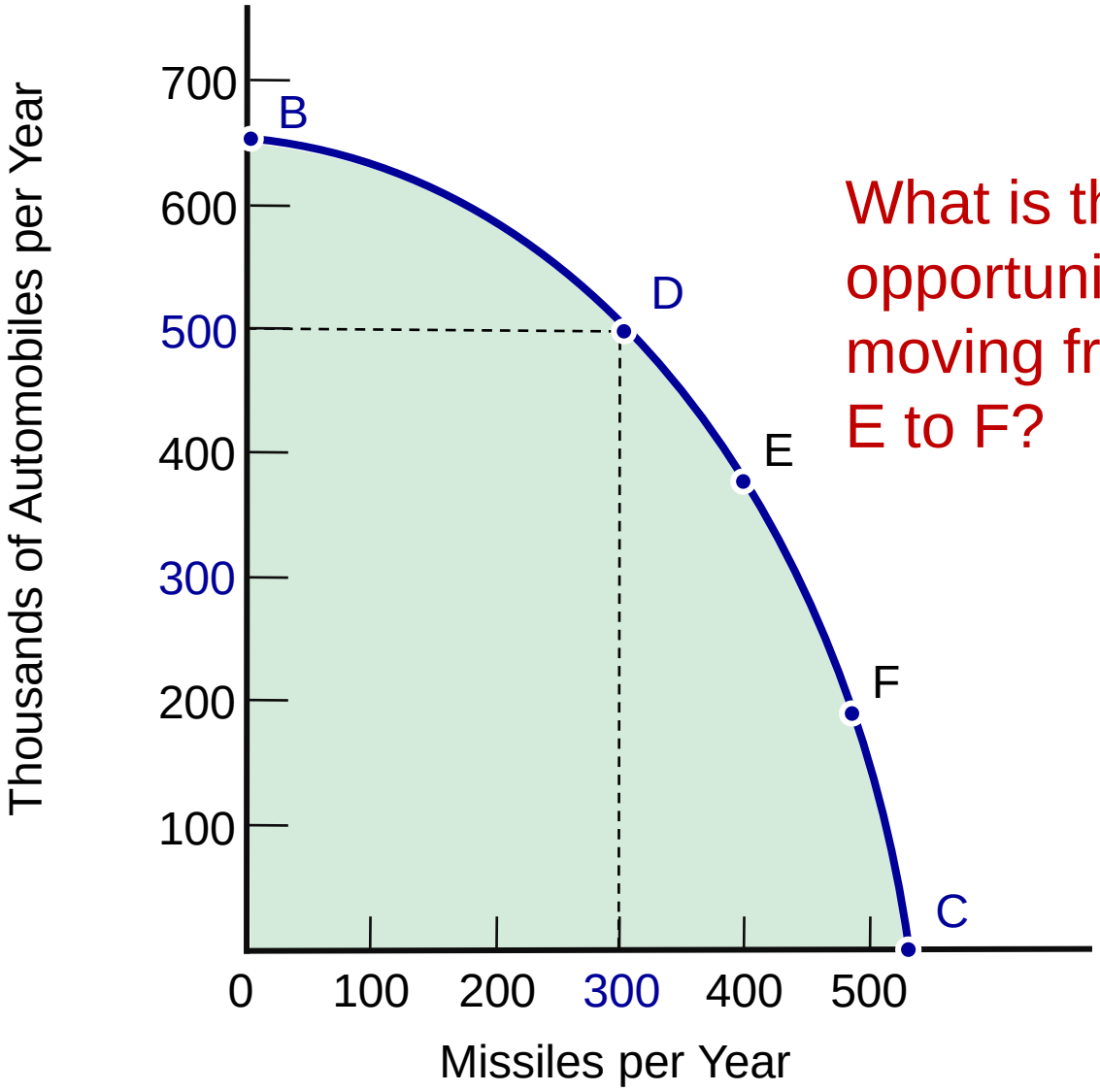
Scarcity & Choice For The Entire Society

Production possibilities frontier for an economy

- Determined by:
  - Physical resources, skills, technology
  - Willingness to work
  - Past: construction of factories, research, and innovation

- Example of Two goods: automobiles (civilian goods) and missiles (military goods) →

Production Possibilities Frontier for the Entire Economy



What is the opportunity cost from moving from D to E? E to F?

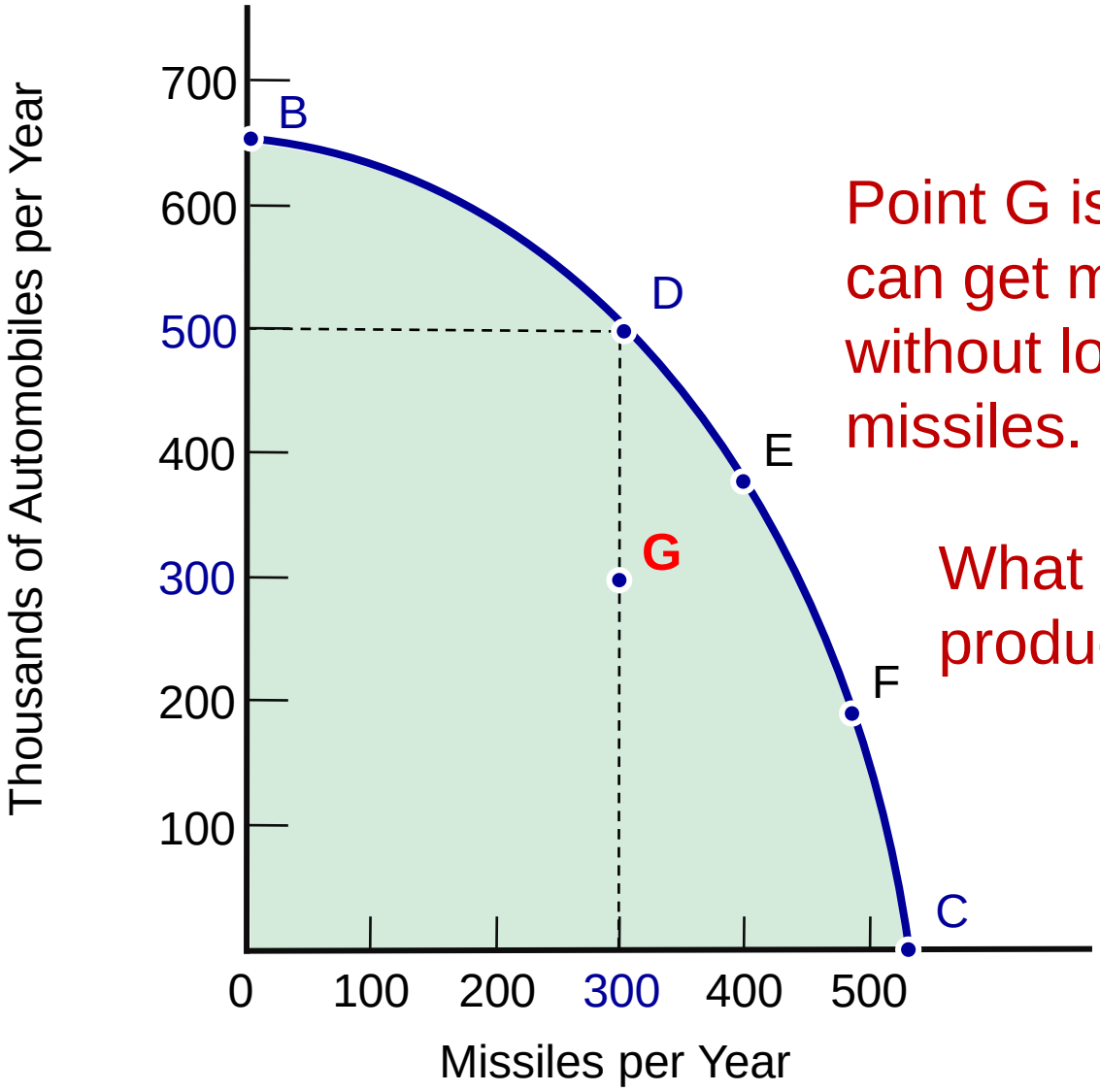
Source: Baumol & Blinder MACROECONOMICS (11th ed), page 45. 2009 Cengage Learning, inc.

The Concept of Efficiency

Points on the frontier are efficient

- Produces the maximum amount given current technology and resources
- Cannot increase the production of one output . . .
  - without giving up a quantity of other output or more inputs
- No waste of resources

Production Possibilities Frontier for the Entire Economy



Point G is *inefficient*: can get more autos without losing missiles.

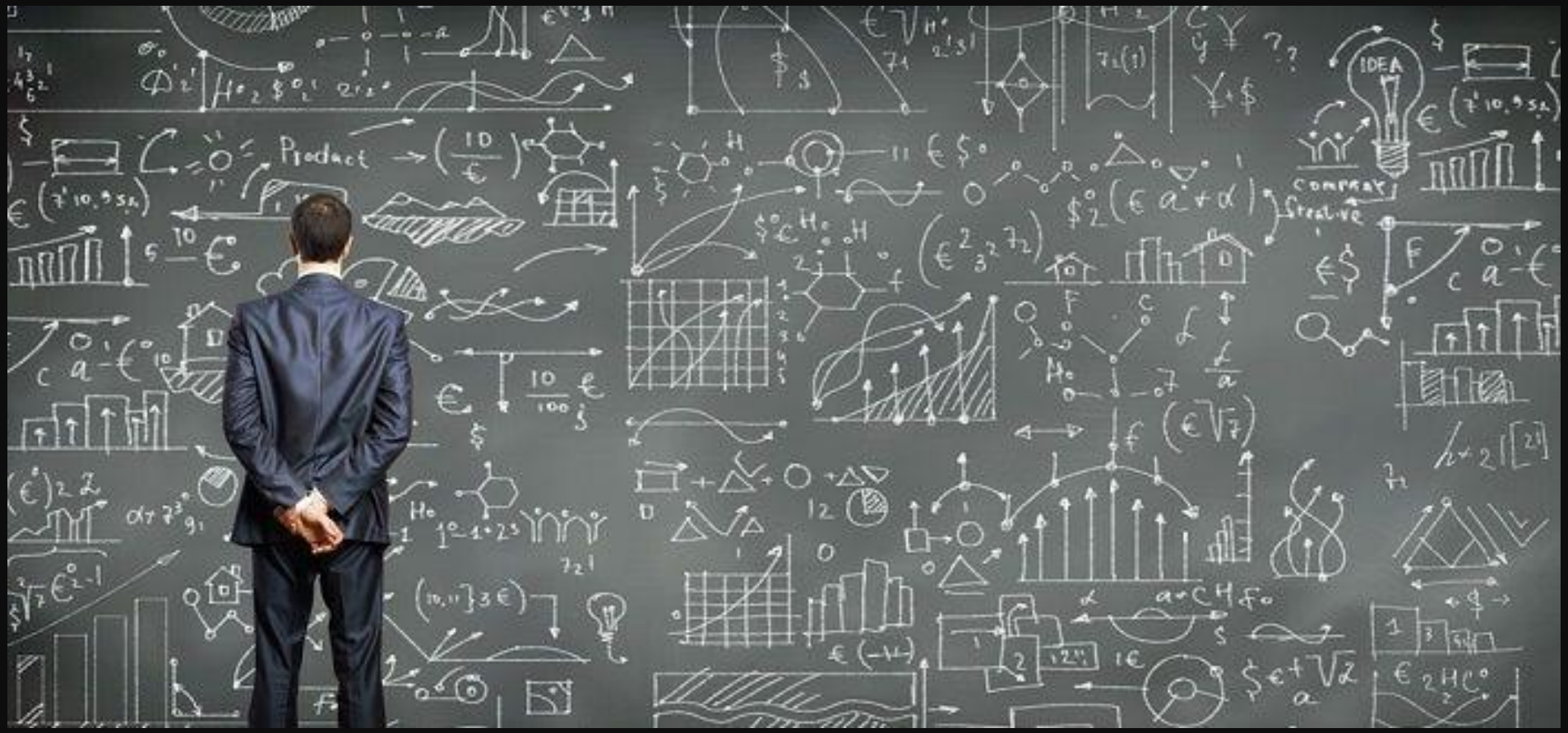
What is the best production point?

Source: Baumol & Blinder MACROECONOMICS (11th ed), page 45. 2009 Cengage Learning, inc.

The Concept of Efficiency

Why would an economy produce inefficiently (inside PPF)?

- Unemployment
- Inputs assigned to wrong tasks
- Goods produced at the wrong scale
- Favoritism
- Restrictive labor practices



Source: https://www.practicalecommerce.com/5-ways-data-science-drives-ecommerce-revenue

Three Coordination Tasks Of Any Economy

To allocate scare resources society must make three decisions – three tasks

1. How to utilize its resources efficiently
2. Which of the possible combinations of goods to produce
3. How much of the total output of each good does each person get

The How, What and For Whom

Task 1: The How

Division of Labor

- Break a task into smaller and smaller specialized tasks
- Workers become more adept at a particular task

Principle of Comparative Advantage

- Should a lawyer do her own typing even if she can type faster than her assistant?
- No. Her opportunity cost of typing one hour is very high
- Basis for international trade

Task 1: The How

Principle of Comparative Advantage

- One country has a comparative advantage over another in the production of a good relative to other goods if it produces that good less inefficiently than it produces other goods, as compared with another country.

- U.S. and Korea
  - U.S. better at making televisions and computers
  - Much more efficient at computers; slightly more efficient at TV's.
  - U.S. should specialize in computer production

Surprising Principle of Comparative Advantage

Even if one country is better at producing every good, it can still gain from trade

- A country has a comparative advantage in making the good in which it is *least* inefficient.

- So it should specialize in the production of that good,
- and export that good to another country,
- and import goods in which the other country has a comparative advantage.

Task 2: The What

Market Mechanism

- Division of labor and comparative advantage increases productivity
- Need a system of exchange to improve standard of living
- Can barter, but exchange works better if people use some common item such as money
- Market mechanism decides how much of each good to produce
  - The role of prices

Task 3: For Whom

Should a central authority or a market system decide?

Market system

- A form of economic organization in which resource allocation decisions are left to individual decision makers, who act in their own best interest.
- Goods go to those most *willing* and *able* to pay for them

Society has many important goals

- What does the market do well? What does it do poorly?

Microeconomics vs. Macroeconomics

Microeconomics is concerned with

individual parts of the economy.

Macroeconomics models the economy as a whole. It studies economic relationships at *aggregate* level: e.g. the overall level of prices, output and employment in the economy.

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Thank you for your attention!