I. SOME KEY CONCEPTS
   A. Scarcity
      1. Economists’ definition of scarcity
      2. Constraints faced by individuals, firms, and whole economies
   B. Choice
   C. Opportunity cost
   D. Examples of opportunity cost
      1. A firm that can produce two goods
      2. Allocating your time between two activities
      3. Buying a good in the market
      4. Going to graduate school
      5. Doing your own home repairs
      6. A good whose market price has changed since you bought it

II. THE PRODUCTION POSSIBILITIES CURVE
   A. Robinson Crusoe’s economy
   B. Robinson’s PPC
   C. Attainable and unattainable points on the PPC
   D. The PPC and opportunity cost
   E. Potential curvature of the PPC
   F. Possible shifts in Robinson’s PPC

III. APPLICATION: HEALTH SPENDING IN THE UNITED STATES
   A. Facts and issues
   B. Setting up the PPC diagram
   C. Implications of the PPC
   D. Interpreting the higher spending in the United States
      1. Possibility #1: Similar PPCs, different points
      2. Possibility #2: Inefficiency in the United States
      3. Possibility #3: Different PPCs
LECTURE 2
Scarcity and Choice

January 21, 2016
Announcements

• Reminder: Make sure to attend your first section meeting.

• If you miss it and want to stay in the course, email your GSI. (Section information and GSI email addresses are on the course website.)

• A word of advice: Engage! Read actively, take notes and think about lecture actively, participate in section actively.

• Reminder: We have a no electronics policy.
I. SOME KEY CONCEPTS
Scarcity

- By scarcity, economists mean constraints.
- People, firms, and countries all face constraints.
- At a point in time, constraints are given. But they can change over time.
- A central subject of economics: How people, firms, and economies do the best they can, taking into account the constraints they face.
Choice and Opportunity Cost

• Because individuals, firms, and whole countries face constraints, they have to make choices.

• Every choice has a cost.

• Opportunity cost: The next-best alternative that was not chosen because something else was chosen.
Examples of Opportunity Cost

- A factory that can produce either cars or trucks.
- Studying for two exams.
- A good that you buy.
- Going to graduate school.
- Doing your own home repairs.
- A good whose market price has changed since you bought it.
II. THE PRODUCTION POSSIBILITIES CURVE
A One-Person Economy: Robinson Crusoe

- Two goods: fish and coconuts.
- Robinson works 6 hours a day.
- Abilities:
  - Fish/hour: 1.
  - Coconuts/hour: 1.
- Opportunity costs:
  - Opportunity cost of 1 fish is 1 coconut.
  - Opportunity cost of 1 coconut is 1 fish.
Robinson’s Production Possibilities per Day

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<td>Coconuts:</td>
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Robinson’s Production Possibilities Curve

![Graph of Robinson's Production Possibilities Curve showing the trade-off between Fish and Coconuts, with a PPC line.]
Attainable and Unattainable Points on the PPC

Fish vs. Coconuts graph with points labeled a, b, c, and d. Points a, b, and c are attainable, while point d is unattainable.
The opportunity cost of the good on the horizontal axis is minus the slope of the PPC.

Slope = \(-1\)
A Bowed-Out PPC

Fish

Coconuts

PPC
General Technological Progress

![Graph showing General Technological Progress with two production possibility curves (PPC): PPC₁ and PPC₂. The x-axis represents Coconuts, ranging from 0 to 12, and the y-axis represents Fish, ranging from 0 to 12. PPC₁ is a blue line, while PPC₂ is a green line.](image-url)
Addition of Capital to One Activity

Fish

Coconuts

PPC$_1$

PPC$_2$
III. APPLICATION: HEALTH SPENDING IN THE UNITED STATES
Health Care Spending (2013)

Source: OECD and Peter G. Petersen Foundation.
Health Expenditure as a Percent of GDP (2013)

Source: OECD and Peter G. Petersen Foundation.
PPC for Health and All Other Goods and Services

All other goods and services

PPC

Health
Interpreting the Higher Spending in the United States
Possibility #1: Similar PPCs, Different Points

Health

All other goods and services

$\text{PPC}_{\text{US}}, \text{PPC}_{\text{Europe}}$

$\mathbf{a}_{\text{US}}$

$\mathbf{a}_{\text{Europe}}$
Life Expectancy in Selected Countries

Figure 3: Life expectancy at birth, selected countries, 2009

Possibility #2: Inefficiency in the United States

All other goods and services

Health

$\text{PPC}_{\text{US}}, \text{PPC}_{\text{Europe}}$

$\mathbf{a}_\text{US}, \mathbf{a}_\text{Europe}$
Possibility #3: Different PPCs

All other goods and services

Health

PPC_{US}

PPC_{Europe}

a_{US}

a_{Europe}