Presentation to accompany

Principles of Microconomics, Fourth Edition

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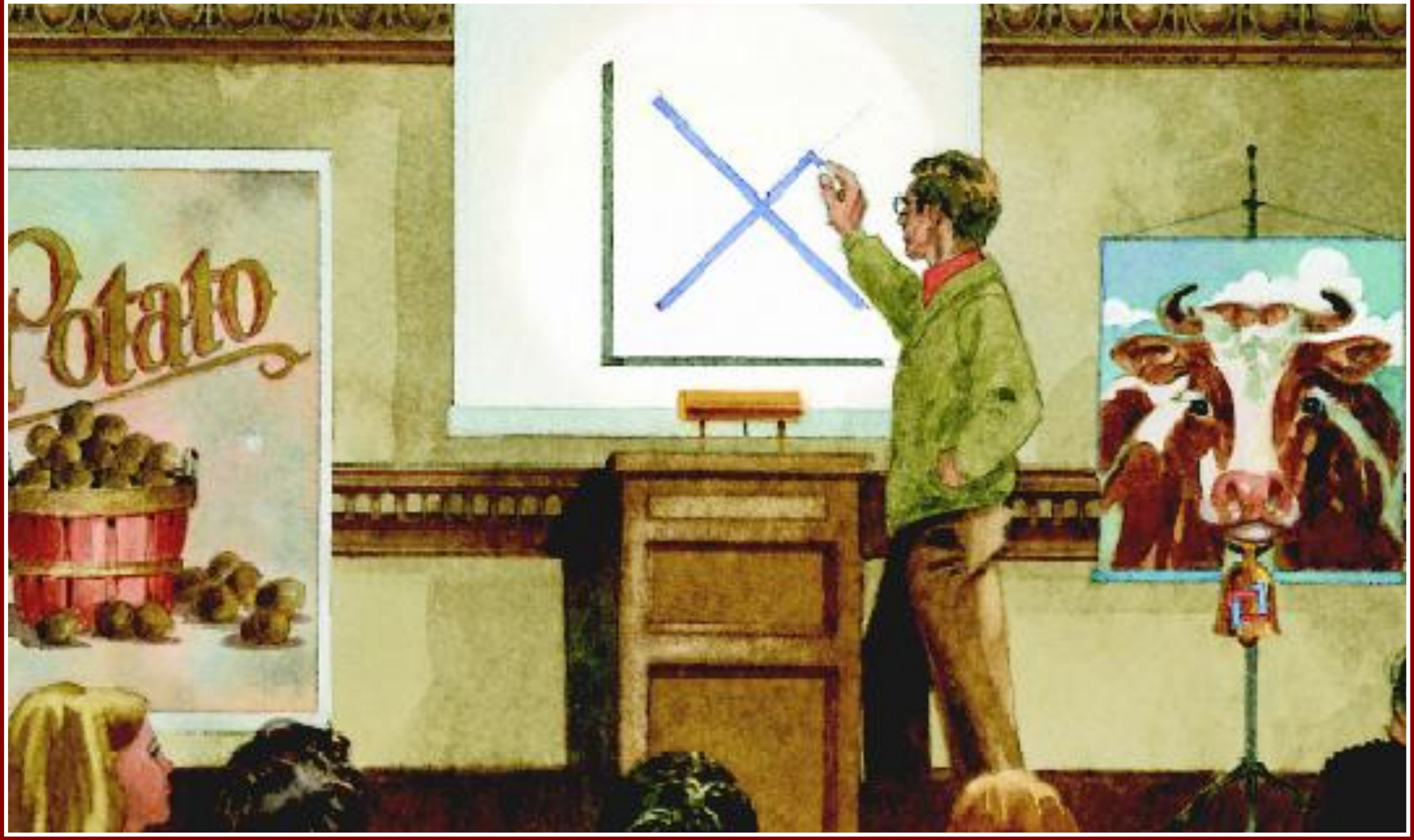
Lecture 1

Syllabus

- Contact
- Office hours
- Materials
- Important dates – webpage
- Grading
- Questions?

This course is about…



…where do supply and demand come from?
…why is equilibrium in their intercept?
…what factors can change this picture and how?

Plan for Today

- What is economy/economics
- Ten principles of economics
- Economics as a science
- Economic models

Economy

...The word *economy* comes from a Greek word for "one who manages a household."

A household and an society face many similar decisions

Economy

- A household:
  - Who cooks dinner? Who does shopping?
  - Who chooses TV channel? Who gets dessert?
- A society:
  - Who will work? What goods and how many of them should be produced?
  - What resources should be used in production?
  - At what price should the goods be sold?

Scarcity – Key Factor

Society and Scarce Resources: The management of society's resources is important because resources are scarce.

Scarcity... means that society has limited resources and therefore cannot produce all the goods and services people wish to have.

Economy *vs.* Economics

Economy – an economic system
(of household/country)
“group of people interacting with each other as they go about living their lives”

Economics – the study of how society
manages its scarce resources

Economists study...

- *how people make decisions*
  - how much to work, invest, save
- *how people interact with each other*
  - how many buyers and sellers get together and determine the price and the quantity
- *forces that affect the economy as a whole*
  - growth, unemployment

Ten Principles of Economics

- How people make decisions
  (4 principles)
- How people interact with each other
  (3 principles)
- The forces and trends that affect how the economy as a whole works
  (3 principles)

Ten Principles of Economics

- How people make decisions (4)
  - People face tradeoffs
  - The cost of something is what you give up to get it
  - Rational people think at the margin
  - People respond to incentives

Ten Principles of Economics

- How people interact with each other (3)
  - Trade can make everyone better off
  - Markets are usually a good way to organize economic activity
  - Governments can sometimes improve economic outcomes

Ten Principles of Economics

- The forces and trends that affect how the economy as a whole works (3)
  - The standard of living depends on a country’s production
  - Prices rise when the government prints too much money
  - Society faces a short-run tradeoff between inflation and unemployment

Principle #1

- People face tradeoffs…

…and tradeoffs can be difficult

Principle #1

- To get something we like we usually have to give up something else – **resources** are **scarce** (*“There is no such thing as a free lunch”*)
- A student and her time:
  - Studying *vs.* napping or cycling
- Society’s **tradeoffs**:
  - Guns *vs.* Butter
  - Clean environment *vs.* higher income
  - Efficiency *vs.* equity

Principle #1

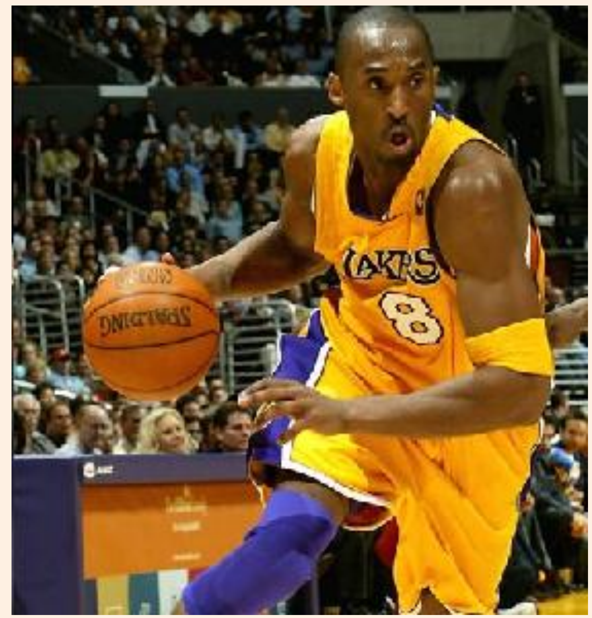
People face tradeoffs…

…making decisions requires trading off one goal against another

Principle #2

- The cost of something is what you give up to get it

vs.



- College *vs.* basketball

Principle #2

Decisions require comparing costs and benefits of alternatives

- Whether to go to college or to work?
- Whether to study or go out on a date?
- Whether to go to class or sleep in?

The *opportunity cost* of an item is what you give up to obtain that item

In other words, it is the value of the next-best choice available

Principle #2

Example:

Tiger Woods the college graduate: $46,000
Tiger Woods the golf player: $115,000,000

Opportunity cost of college (forgone golf income) is
$115,000,000

Opportunity cost of golf (forgone income of college graduate) is
$46,000

Principle #3

- Rational people think at the margin

Marginal changes are small, incremental adjustments to an existing plan of action

People make decisions by comparing costs and benefits at the margin

Examples:

- selling additional plane ticket
- buying bottled water

Principle #3

Example: buying bottled water

	Value of Each Bottle	Unit Price
1^{st}	100	40
2^{nd}	50	40
3^{rd}	25	40
4^{th}	20	40
Total	195	160

Principle #3

Example: buying bottled water

- Buy pack of four bottles:

  the net value is 195 – 160 = 35

- Think at the margin:

  Buy only two bottles (cost of 3rd is 40 and the value only 20, you do not buy it)

  the net value is 150 – 80 = 70

- Thinking at the margin pays off!

Principle #4

- People respond to incentives

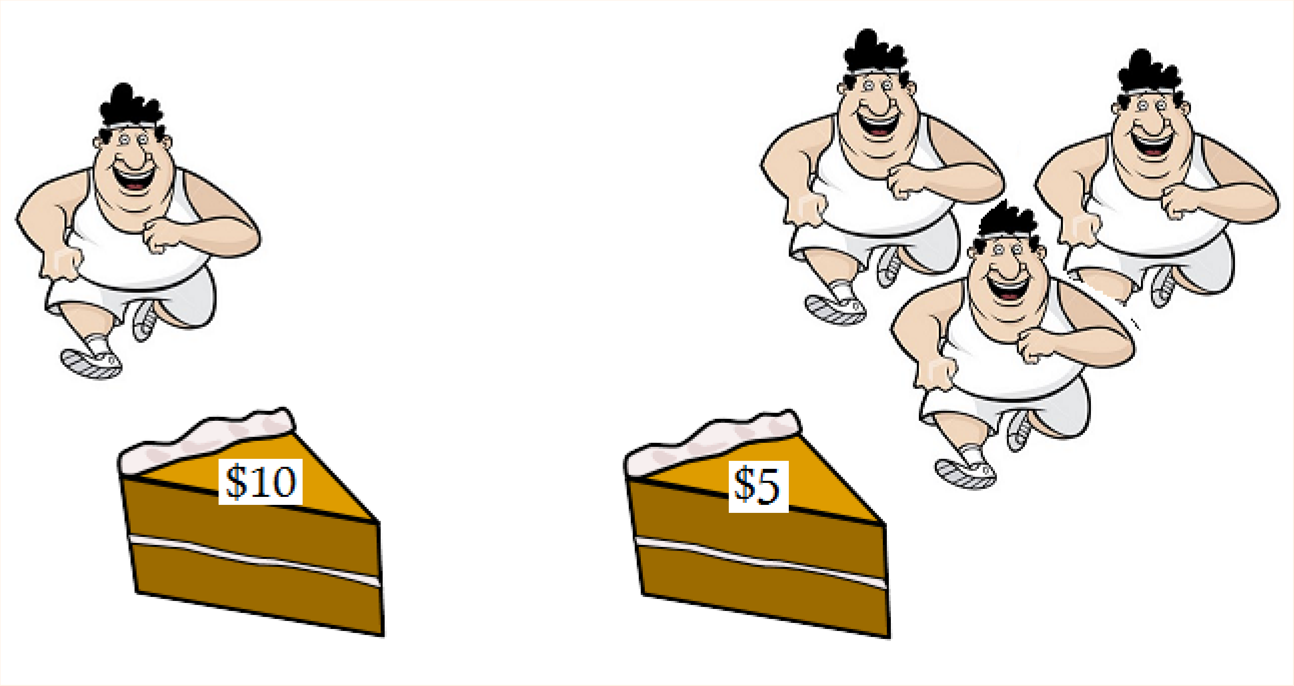
- What do people want?

  Happiness – they want to be better off
- Result:

  Marginal changes in costs or benefits motivate people to respond

Principle #4

- People respond to incentives



Principle #4

Examples:

- Price of apples goes up, people switch to pears

- Law enforcing the use of seatbelts in cars
  => fewer deaths of drivers,
  more accidents,
  more deaths of pedestrians

Principle #5

- Trade can make everyone better off

- People gain from their ability to trade with one another

- Competition results in gains from trading Trade allows people to specialize in what they do best

Principle #6

- Markets are usually a good way to organize economic activity

- A *market economy* is an economy that allocates resources through the decentralized decisions of many firms and households as they interact in markets for goods and services
- Households decide what to buy and who to work for
- Firms decide who to hire and what to produce

Principle #6

- Adam Smith made the observation that households and firms interacting in markets act as if guided by an "invisible hand"
- Because households and firms look at prices when deciding what to buy and sell, they unknowingly take into account the value of the good to society and the cost to society of making the good
- As a result, prices guide decision makers to reach outcomes that tend to maximize the welfare of society as a whole

Principle #6

..."It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest"...

Principle #7

- Governments can sometimes improve market outcomes

- *Market failure* occurs when the market fails to allocate resources efficiently
- When the market fails (breaks down) government can intervene to promote efficiency and equity

Principle #7

- Governments can sometimes improve market outcomes

- Market failure may be caused by an *externality*, which is the impact of one person or firm's actions on the well-being of a bystander
- *market power*, which is the ability of a single person or firm to unduly influence market prices

Principle #8

- The standard of living depends on a country's production
- Standard of living may be measured in different ways:
  - By comparing personal incomes
  - By comparing the total market value of a nation's production
- Almost all variations in living standards are explained by differences in countries' productivities
- *Productivity* is the amount of goods and services produced from each hour of a worker's time

Principle #9

- Prices rise when the government prints out too much money

- Inflation is an increase in the overall level of prices in the economy (CR)
- One cause of inflation is the growth in the quantity of money
- When the government creates large quantities of money, the value of the money falls

Principle #10

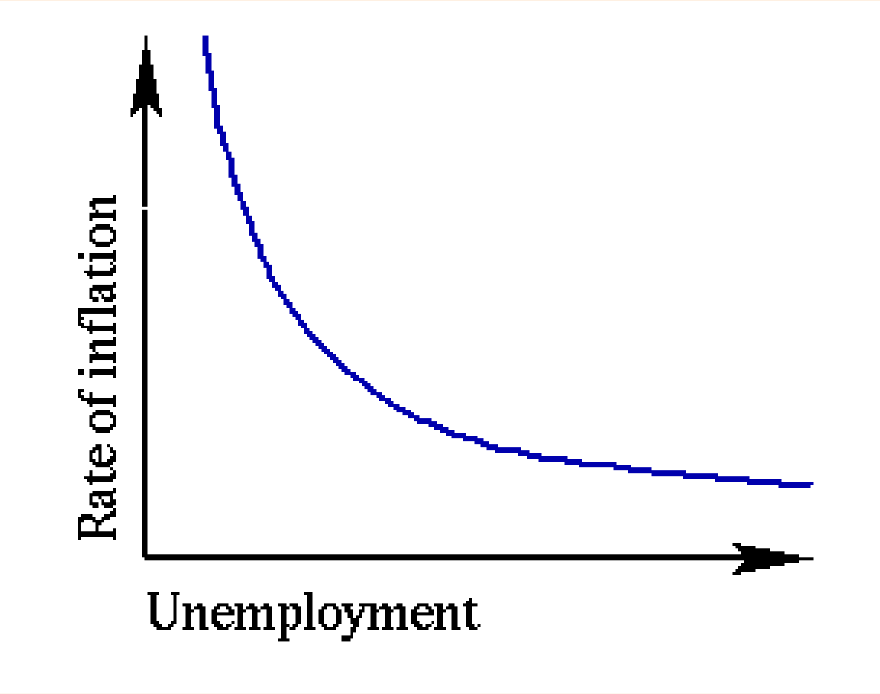
- Society faces a short-run tradeoff between inflation and unemployment

- The Phillips Curve illustrates the tradeoff between inflation and unemployment:
  $\searrow$ Inflation $\Rightarrow$ $\nearrow$ Unemployment

- It is a short-run tradeoff!

Principle #10

- The Phillips Curve illustrates the tradeoff between inflation and unemployment:



Thinking Like an Economist

- Economics trains us to...
  - Use specific language
    (supply, demand, opportunity cost, elasticity, welfare, surplus, comparative advantages, etc.)
  - Think in terms of alternatives
  - Examine and understand how certain events and issues are related
  - Use abstract models to help explain how a complex, real world operates
  - Develop theories, collect, and analyze data to evaluate the theories

Economic Models

- Economists make assumptions in order to make the world easier to understand
- The art in scientific thinking is deciding which assumptions to make
- Economists use different assumptions to answer different questions

Economic Models

Economists use models to simplify reality in order to improve our understanding of the world

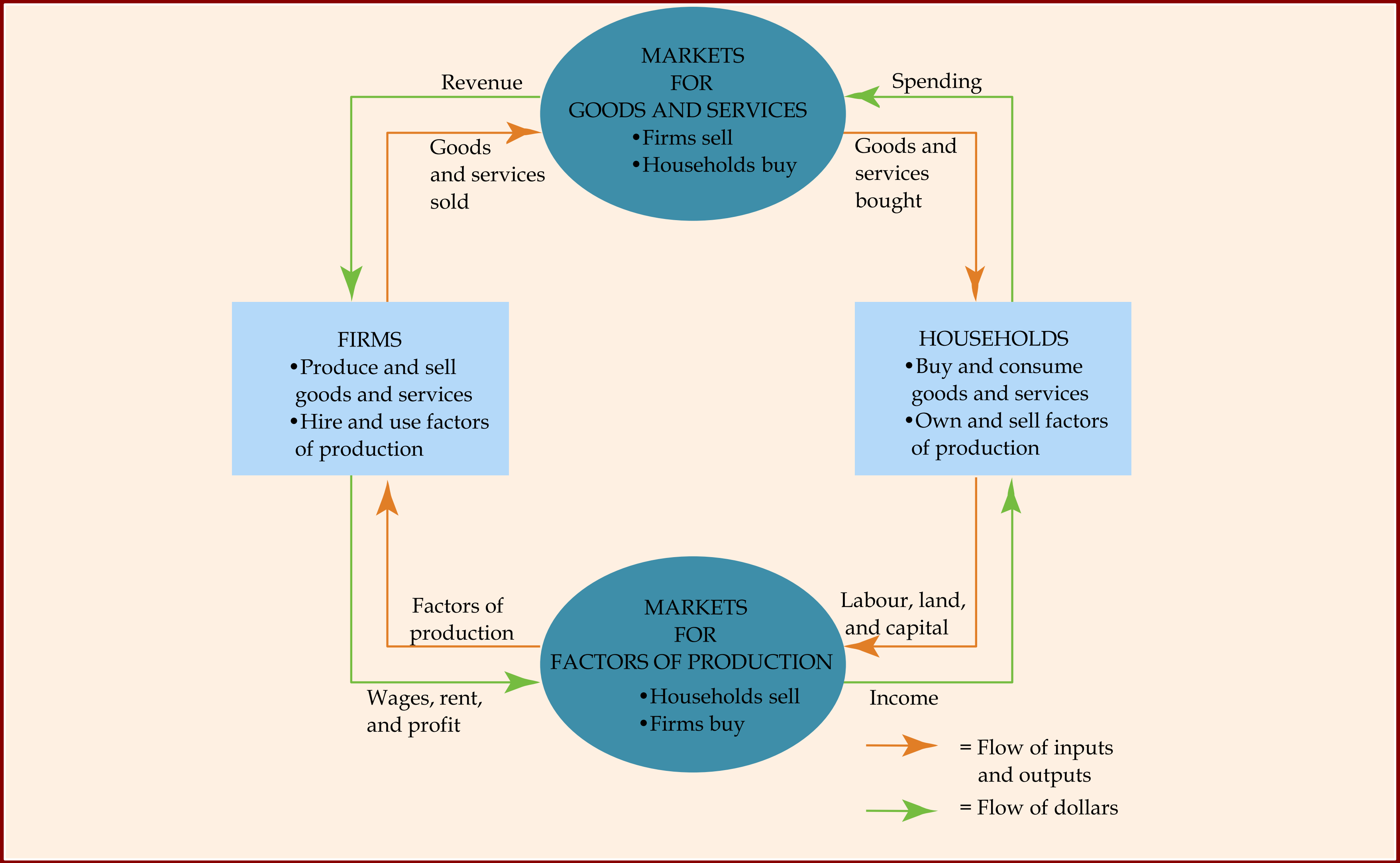
Two of the most basic economic models include:

- The Circular Flow Diagram
- The Production Possibilities Frontier

The Circular-flow Diagram

The *circular-flow diagram* is a visual model of the economy that shows how dollars flow through markets among households and firms

The Circular-flow Diagram



The Circular-flow Diagram

Firms:

Produce and sell goods and services

Hire and use factors of production (land, labor, capital)

Households:

Buy and consume goods and services

Own and sell factors of production

The Circular-flow Diagram

Markets for Goods and Services:
- Firms sell
- Households buy

Markets for Factors of Production:
- Households sell
- Firms buy

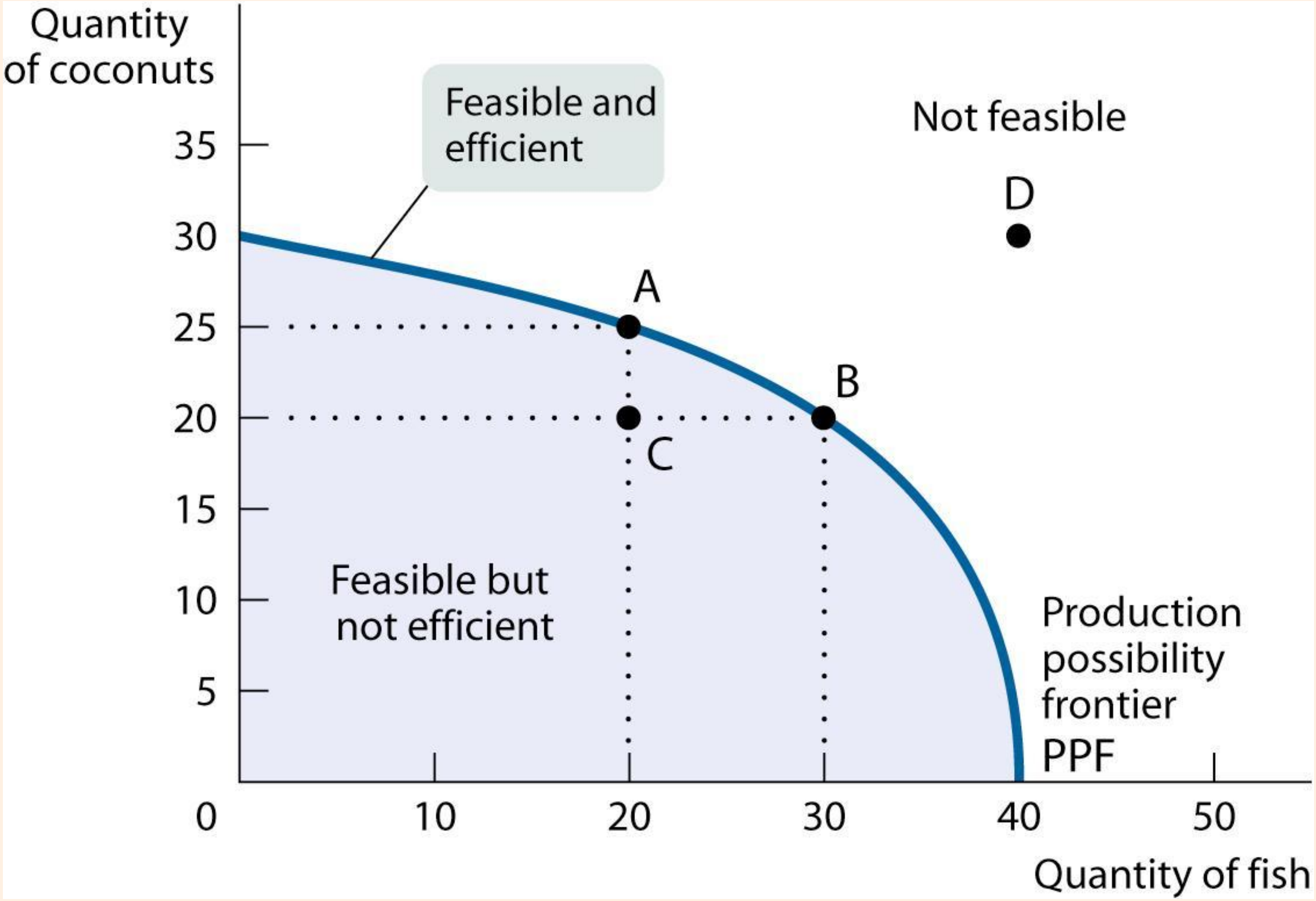
Production Possibilities Frontier

The *production possibilities frontier* is a graph that shows the combinations of output that the economy can possibly produce given the available factors of production and the available production technology

- Economy producing two goods only
- Illustrates
  - **Tradeoffs**
  - **Opportunity costs**

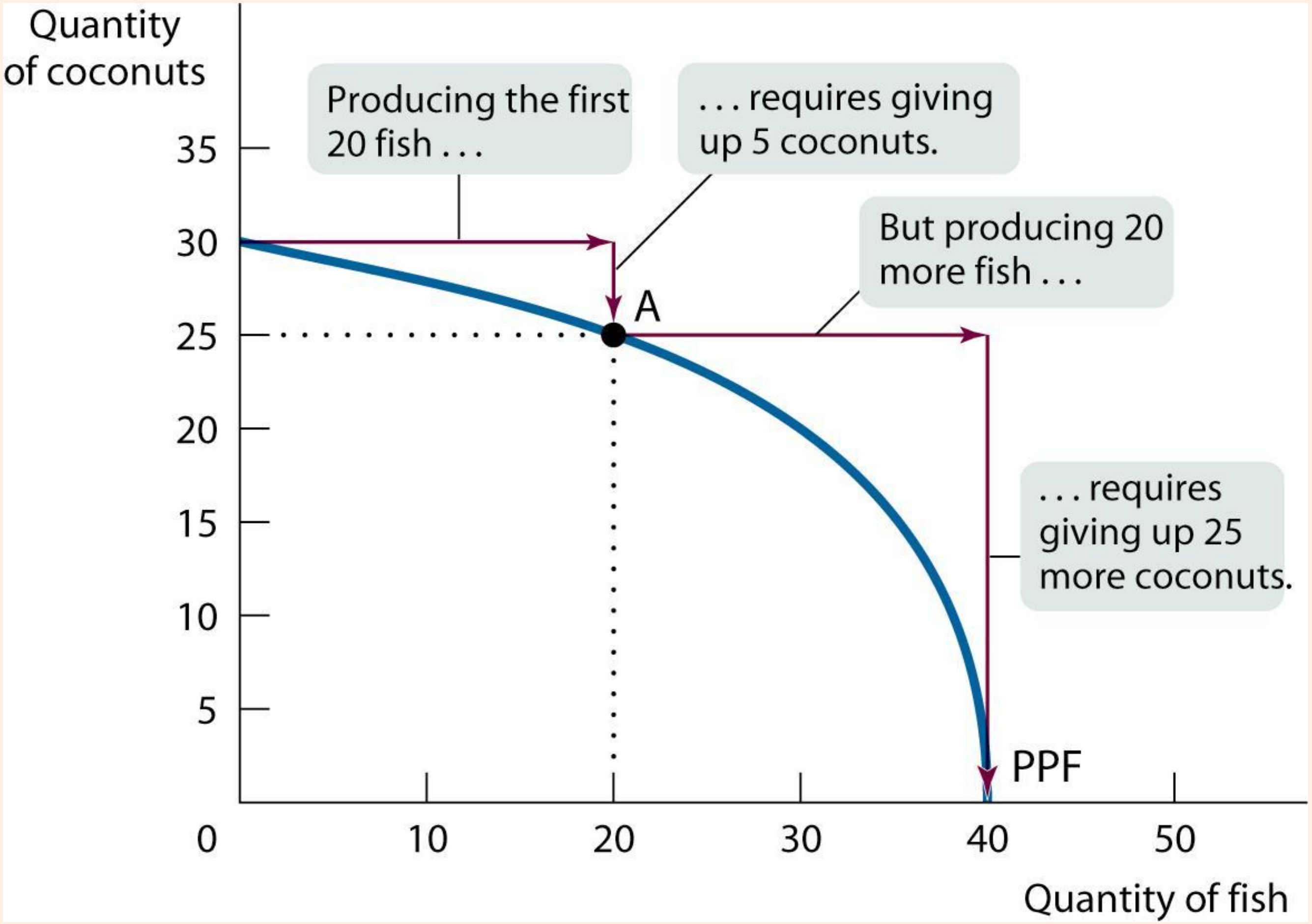
Production Possibilities Frontier

Tradeoff between coconuts and fish:



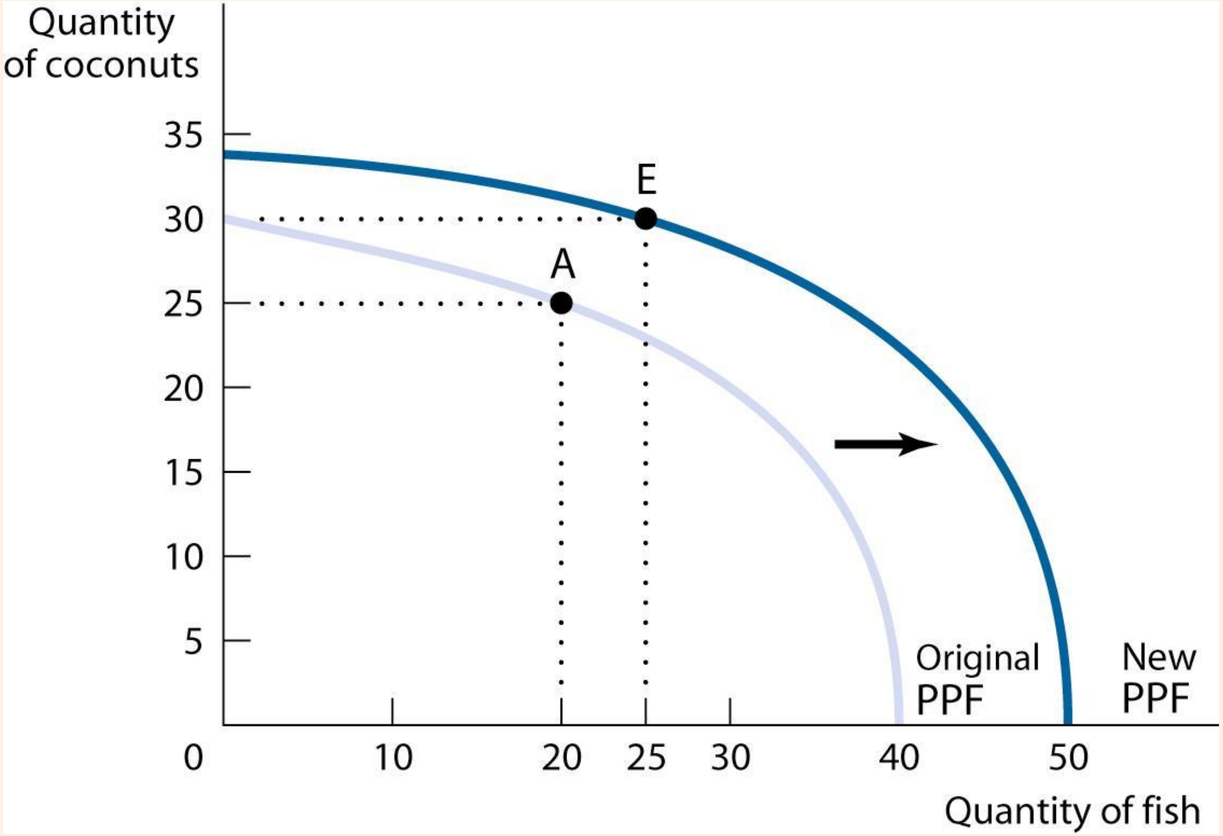
Production Possibilities Frontier

Increasing opportunity cost:



Production Possibilities Frontier

Economic growth:



Production is initially at point *A* (20 fish and 25 coconuts) → it can move to point *E* (25 fish and 30 coconuts)

Economics

Microeconomics focuses on the individual parts of the economy:

How households and firms make decisions and how they interact in specific markets

Macroeconomics looks at the economy as a whole:

Economy-wide phenomena, including inflation, unemployment, and economic growth

Economists

Scientists:

- Attempt to describe and understand the world
- Analyze
- Positive economics (world as it is)

e.g. Higher federal budget deficits will cause interest rates to increase

Policy advisors:

- Attempt to change the world and economic processes
- Create policies
- Normative economics (world as it should be)

e.g. State governments should be allowed to collect from tobacco companies the costs of treating smoking-related illnesses among the poor

Summary I

- People face tradeoffs
- Costs are measured by forgone opportunities
- Decisions are made on the margin, comparing marginal benefits and costs
- People make decisions to maximize their happiness – they respond to incentives

Summary II

- Trade can be mutually beneficial
- Market mechanism is usually a good way to organize interactions in a society
- Government can improve functioning of a market mechanism under some circumstances

Summary III

- Productivity is the ultimate source of wealth
- Money growth causes inflation
- Short-run tradeoff between unemployment and inflation

Summary IV

- Economists make appropriate assumptions and build simplified models in order to understand the world around them
- Economics is divided into two subfields:
  - Microeconomists study decision making by households and firms in the marketplace
  - Macroeconomists study the forces and trends that affect the economy as a whole

Summary V

- A positive statement is an assertion about how the world is
- A normative statement is an assertion about how the world ought to be
- When economists make normative statements, they are acting more as policy advisors than scientists