

First Principles

Craig Sylvera

July 8, 2019

Slide formatting cribbed from Dr. Paul Goldsmith-Pinkham

Economy in general [is] the art of providing for all the wants of a family, [so the science of political economy] seeks to secure a certain fund of subsistence for all the inhabitants; to obviate every circumstance which may render it precarious; to provide everything necessary for supplying the wants of society, and to employ the inhabitants ... in such manner as naturally to create reciprocal solutions and the dependencies between them, so as to supply one another with reciprocal wants.

-Sir James Steuart (1767)

A branch of the science of the statesman or legislator [with the twofold objective of providing] a plentiful revenue or subsistence for the people... [and] to supply the state or commonwealth with a revenue for the public service.

- Adam Smith (1776)

The science which traces the laws of such of the phenomena of society as arises from the combined operations of mankind for the production of wealth in so far as those phenomena are not modified by the pursuit of any other object.

- John Stuart Mill (1844)

Political economy or economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of material requisites of well-being. Thus it is on one side a study of wealth; and on the other, and more important side, a part of the study of man.

- Alfred Marshall (1890)

Economics is a science which studies human behavior as a relationship between ends and scarce means which have alternative uses.

- Lionel Robbins (1932)

Questions that Economics Helps Answer

- 1 How does our economic system work? That is how does it manage to deliver goods?

Questions that Economics Helps Answer

- 1 How does our economic system work? That is how does it manage to deliver goods?
- 2 When & why does our economic system go astray, leading people into counterproductive behavior?

Questions that Economics Helps Answer

- 1 How does our economic system work? That is how does it manage to deliver goods?
- 2 When & why does our economic system go astray, leading people into counterproductive behavior?
- 3 Why are there ups & downs in the economy? That is, why does the economy sometimes have bad years?

Questions that Economics Helps Answer

- 1 How does our economic system work? That is how does it manage to deliver goods?
- 2 When & why does our economic system go astray, leading people into counterproductive behavior?
- 3 Why are there ups & downs in the economy? That is, why does the economy sometimes have bad years?
- 4 Why is the long run mainly a story of ups rather than downs?

1 How does our economic system work? That is how does it manage to deliver goods?

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

- **Market economies** are able to coordinate a complex set of transactions without the assistance of any central authority
- **Market economy** - an economy in which production & consumption are the result of decentralized decisions by many firms & individuals (p. 3 definition)

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

- 1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

- 2 When & why does our economic system go astray leading people into counterproductive behavior?

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

2 When & why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

- Sometimes the individual pursuit of one's own interest can actually make society worse off.
- **Externalities** arise when individual actions affect others in unintended ways.

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

3 Why are there ups & downs in the economy? That is, why does the economy sometimes have a bad year?

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

3 Why are there ups & downs in the economy? That is, why does the economy sometimes have a bad year?

Recessions

- The economy experiences fluctuations sometimes driven by expectations, sometimes driven by structural/systemic causes.
- **Recessions** are downturns of the economy, and one of the main areas of study of macroeconomics.

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

3 Why are there ups & downs in the economy? That is, why does the economy sometimes have a bad year?

Recessions

1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

3 Why are there ups & downs in the economy? That is, why does the economy sometimes have a bad year?

Recessions

4 Why is the long run mainly a story of ups rather than downs?

- 1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

- 2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

- 3 Why are there ups & downs in the economy? That is, why does the economy sometimes have a bad year?

Recessions

- 4 Why is the long run mainly a story of ups rather than downs?

Economic Growth

- 1 How does our economic system work? That is how does it manage to deliver goods?

The Invisible Hand

- 2 When & Why does our economic system go astray leading people into counterproductive behavior?

Costs & Benefits

- 3 Why are there ups & downs in the economy? That is, why does the economy sometimes have a bad year?

Recessions

- 4 Why is the long run mainly a story of ups rather than downs?

Economic Growth

- The general trend of US history and much of the developed world is that of **growth**, the ability of the economy to produce goods at greater levels than in a previous period.

First Principles

Individual Choice

Resources are scarce; otherwise, our choices would be arbitrary and without heft.

- Natural resources are limited
- Time is limited
- Income is limited

A **resource** is anything that can be used to produce something else.

eg. Land, Labor, Physical Capital (machinery, plant), Human Capital

Opportunity Costs

Opportunity costs are what you must give up in order to obtain an item.

Decision-making at the Margin

Many decision we make are not binary (whether to do or to not do); instead our decisions are made at the **margin**.

- I'm at McDougal's. Should I get a large or small basket?

When we make a decision at the margin, we are necessarily making a **tradeoff**. e.g. When I wash my legs, I can't spend an additional 3 minutes on Twitter.

Decision-making at the Margin

Many decision we make are not binary (whether to do or to not do); instead our decisions are made at the **margin**.

- I'm at McDougal's. Should I get a large or small basket?
- Should I study for this test an additional 15 minutes?

When we make a decision at the margin, we are necessarily making a **tradeoff**. e.g. When I wash my legs, I can't spend an additional 3 minutes on Twitter.

Decision-making at the Margin

Many decision we make are not binary (whether to do or to not do); instead our decisions are made at the **margin**.

- I'm at McDougal's. Should I get a large or small basket?
- Should I study for this test an additional 15 minutes?
- After deciding to shower, should I also wash my legs?

When we make a decision at the margin, we are necessarily making a **tradeoff**. e.g. When I wash my legs, I can't spend an additional 3 minutes on Twitter.

Incentives Matter

Incentive - anything that offers rewards to people who change their behavior.

- Expectations about earnings play into the incentive structure like choice of major

Interaction

Gains from Trade

Trade: where one provides goods or services in exchange for goods or services.

Why does trade work?

Gains from trade: No one is proficient at all tasks. Often they are very good at particular tasks. Division of tasks allows for specialization.

Equilibrium

- Individuals will exhaust opportunities to make themselves better off

Common everyday examples:

- Checkout lines
- Desk choice
- What time should I wake up?

The profit motive tends to move markets towards equilibrium.

Efficient Use of Resources

What does it mean to use resources efficiently?

- An economy is **efficient** if it takes all opportunities to make some people better off w/out making some people worse off.
- * When an economy is efficient, it is producing the maximum gains from trade possible given the resources available.
- ~ The *Equity/Efficiency tradeoff*: We may not desire perfect efficiency in order to obtain a socially desirable outcome. This is often the reason the government levies taxes.

Markets *Generally* Lead to Efficiency

- Nobody enforces efficiency for the most part, but it often arises even in abundantly complex systems
- e.g. Real estate can be used to display both the efficient outcome and market failure

Governments *can* Improve Efficiency

When I drive to work I impose an additional cost on every driver on the road as well as those who considered driving to work.

- The government can correct this externality
 - Charge road tolls
 - Subsidize the cost of public transportation
 - Increase gasoline taxes
- These remedies work by changing the would-be costs of driving to work
- *When markets don't achieve efficiency, government intervention can improve society's welfare.*

Economy Wide Interactions

- One person's spending is another person's income
- Spending sometimes gets out of line with the economy's productive capacity
- Government policies can change spending