Fundamentals Part A

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Overview

What is Economics?

Many textbooks will give a very lengthy definition, but here is the most consise definition

Economics

The study of choices by individuals, firms, governments make in a world of scarce resources.

You can see that the definition does not include money. Money is simply a tool to make transactions easier.

Microeconomics v. Macroeconomics

Microeconomics

The study of the economy at the small-scale level, examining individuals and specific markets.

Macroeconomics

The study of the economy at the largescale level, examining total output, the price level, and other aggregate measures in the economy.

A common analogy is that **Macroeconomics** is the forest, and **Microeconomics** are the individual trees within the forest.

Current Section

1. Introduction to Micro/Macroeconomics
2. Resources
3. Scarcity
4. Opportunity Cost
5. Incentives
6. Rational Decision Making
7. Marginal Analysis

What are resources?

Resources are the foundation of all productive activity.

Resource

Any item, whether a gift of nature, the result of production, or the result of human effort, that is used to produce goods and services.

Four Categories of Resources

- Land
- Labor
- Capital
- Entreprenurial Ability

Example: Julia's Bakery

For the next set of slides consider Julia, who just started their own bakery. We will provide examples of each resource used.

Land

Land

All natural resources, or "gifts of nature," including farmland, forests, oil, oceans, etc.

Land: Julia's Bakery

The wheat she uses in her flour can be considered land. Anything that grows from the land is also categorized as land.

Labor

Labor

Human effort, both physical and mental

Labor: Julia's Bakery

The effort that Julia uses when icing the cupcakes.

Capital

Capital

Tools, machinery, infrastructure, and knowledge used to produce goods and services. A key point is that capital does not end up in the good or service itself.

Capital: Julia's Bakery

The oven used by Julia to bake the cupcakes.

Entreprenurial Ability

Entreprenurial Ability

Talent to combine the land, labor, and capital into a productive process

Entrprenurial Ability: Julia's Bakery

Julia's ability to efficiently produce cupcakes. Note, this is about combining the products efficently, not her knowledge of how to make a cupcake. Her knowledge of how to make a cupcake would be considered *human capital*.

Current Section

What is Scarcity?

Scarcity

A condition that results from the inability of limited resources to satisfy unlimited wants.

Example: Time

A resource that is scarce for everyone regardless of income or wealth.

Current Section

What is Opportunity Cost?

Frederic Bastiat's suggestion is that to be a good economist, you must train yourself to see the unseen.

Opportunity Cost

The value of the next-best forgone alternative; the value of the opportunity that you gave up when you chose one activity, or opportunity, instead of another

Example: Farming

If you are using your land to grow coffee beans, you cannot use that same plot of land for cocoa beans.

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Role of Incentives

- When economists look at the world they believe that people respond to incentives
- If a behavior receives a reward people will do more of it
- If you penalize a behavior, people will do less of it
- Comprehending the importance of the role incentives play in how the market works is one the goal of economics

Example: Traffic Fines

If you do not want individuals to speed, you can create penalties to reduce the number of people speeding.

Note: Incentives do not always turn out as expected

When funding of schools were directly linked to test scores, teachers were incentivized to extend exam times, give correct answers, and even complete the tests for their students.

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What is Rational Decision Making?

Rational decision making is one of the key assumptions of economics. Without it, we could not make any predictions about how people will respond to changes.

Rational Decision Making

Descisions are considered rational based on three characterisitics:

1. Self interest
2. Involve Marginal Analysis
3. Optimizes the overall well-being of the decision maker

Example: Buying Candy

Suppose you are at the grocery store, you see two identical candy bars. One is priced at $0.50 and the other is $1. A rational decision would be to buy the candy bar at $0.50 since the candy bars are identical.

Current Section

What is Marginal Analysis?

Marginal Analysis

Evaluating the costs and benefits associated with each additional decision.

- **Marginal Benefit:** Additional benefit associated with one more unit of activity
- **Marginal Cost:** Additional cost associated with one more unit of activity

Typically, as your level of activity increases, the marginal benefit decreases and the marginal cost increases

Example: Building Libraries

Consider the decision to the number of libraries you need to build.

Building Libraries Example

Using basic intuition, we know that a library on every corner will be too many, and one library may be too few, but how can we define this?

Marginal Benefit

The first library will provide a lot of benefit to the community. The second one, however, will not provide as much benefit as the second one.

Marginal Costs

As you build more libraries, your marginal costs will rise. You will have to use more expensive land that has better alternative uses.

Food for Thought

As resources are going digital, how would this impact the optimal number and size of libraries?