

### **Quick Review of Concepts**

**Economics:** Is the social science that studies the choices that individuals, businesses, governments, and entire societies make as they cope with *scarcity* and the *incentives* and reconcile those choices.

**Scarcity:** It is the inability to get everything we want. It is the condition that arises because wants to exceed the ability of resources to satisfy them.

**Choice:** Under scarcity of resources, we must make choices that make us the happiest. In making a rational choice, we must compare costs and benefits. This gives rise to an opportunity cost.

**Opportunity Cost:** It is when loss of other alternatives when one alternative is chosen. It is the highest valued alternative that must be given up to get it. E.g. school, two components include **time and money** given up.

**Net Benefit:** When considering an option in isolation it is rational to undertake the option if net benefit  $>$  or equal to 0. Largest net benefit should be taken when considering a number of alternatives. Net benefit is measured by the marginal benefit minus the marginal cost.

**Marginal Decision Making:** Most choices made happen at the margin. Not many choices are about all or nothing. We compare *incremental cost and incremental benefit*. (changes over time with the comparison of the marginal cost and benefit. E.g. a slice of pizza instead of a pizza as a whole, you think as you go; marginal as in extra little bit, study or play with friends tmrw?).

**Incentive:** Is a reward that encourages an action or a penalty that discourages one. Prices act as incentives. E.g. If price high, more will be offered for sale than people want to buy and if price is low, fewer will be offered for sale than people want to buy. Another e.g. of a penalty is a tax on cigarettes that discourages cigarette consumption. And an e.g. of a reward is an offer of a 20% price discount if you buy a product now rather than later. **Choices responds to incentives!**

**Microeconomics** is the study of the choices that individuals and businesses make, the way these choices interact in markets, and the influence of governments. Some examples of microeconomic questions are: Why are people downloading more movies? How would a tax on e-commerce affect eBay?

**Macroeconomics** is the study of the performance of the national economy and the global economy. Some examples of macroeconomic questions are: Why is the U.S. unemployment rate so high? Can the Federal Reserve make our economy expand by cutting interest rates?

**Marginal Cost** of something is what you must give up to get one additional unit of it.

**Marginal Benefit** is what you gain when you get one more unit of something. It is measured by what you are willing to give up to get one additional unit of it.

## Definitions and Questions

### Two big economic questions:

- How do choices determine what, how and for whom goods and services get produced?
- When do choices made in self-interest also promote the social interest?

### What, How and For Whom?

- **Goods and services** are the objects (goods) and actions (services) that people value and produce to satisfy human wants.
- **What** goods and services get produced and in what quantities?
  - Varies across countries e.g. China producing more goods than services than other countries.
  - **Answer is those that people rationally chose to buy! Iphone > Zune**
- **How** are goods and services produced?
  - Produced by using productive resources that economists call **factors of production**. Factors of production are grouped into four categories:
    - **Land** “gifts of nature” or natural resources
    - **Labour** work time and work effort of people to produce. Quality is determined by their human capital which is the knowledge and skill they have.
    - **Capital** tools, instruments, machines, stuff to produce these goods and services. There’s **financial capital** (money, stocks and bonds) enables businesses to borrow the funds that they use to buy physical capital.
    - **Entrepreneurship** the human resource that organizes labour, land and capital. They come up with new ideas about what and how to produce, make business decisions, and bear risk that arise from these decisions.
- **For Whom** are the various goods and services produced? (who can afford it?)
  - Depends on the **incomes** that people earn.
  - Income earned by selling their **factors of production they own**.
    - **Land = Rent**
    - **Labour = Wage (Most income)**
    - **Capital = Interest**
    - **Entrepreneurship = Profit**

### Can the Pursuit of Self-Interest Promote the Social Interest?

- The choices that are best for the individual who makes them are choices made in the pursuit of **self-interest**.
- A choice is in the **social interest** if it leads to an outcome that is best for the society as a whole. It has two dimensions: efficiency (best possible use and profit) and equity (or fairness).
- **Education** for example is where self-interest and social interest align.

### Can choices made in self-interest also serve the social interest?

#### 1. Globalisation

- Refers to the expansion of international trade, borrowing and lending, and investment; production of components and services by firms operating across national borders.
- It is in the self-interest of those consumers who buy low-cost goods and services produced in other countries; and it the self-interest of the multinational firms that produce in low-cost regions and sell in high-price regions.
- But in recent years, its pace accelerated. E.g. Nike produces shoes in Malaysia (people get work); Toyota produces cars in the US.

- While globalisation brings expanded production and job opportunities for some workers, it destroys many American jobs due to pace accelerated changes and globalised production description. Workers across the manufacturing industries must learn new skills, take service jobs (lower paid) or retire earlier than previously planned.

## 2. The Information-Age Economy

- Technological change in past years called **Information Revolution**. Which has clearly served us self-interest of mobile phones, laptop and Bill Gates of Microsoft and Intel with wealth. But did the IR best serve social interest? Take into consideration the efficiency(quality) and cost of the product.

## 3. Climate Change

- Proposals to lower carbon emissions, but we make self-interest decisions to contribute to more carbon emissions due to use of electricity and gasoline.

### The Economic Way of Thinking

Six ideas define the economic way of thinking about choices:

1. A choice is a tradeoff
2. People make rational choices by comparing benefits and costs
3. Benefits is what you gain from something
4. Costs is what you give up to get something
5. Most choices are “how much” choices made at the margin
6. Choices respond to **incentives**.

### **A Choice Is a Tradeoff**

Because we face scarcity, we must make choices. To make a choice, we select from the available alternatives. Whatever choice you make, you could have chosen something else. You can think about your choices as tradeoffs. A **tradeoff** is an exchange – giving up one thing to get something else.

### **Making a Rational Choice**

A **rational choice** is one that compares costs and benefits and achieves the greatest benefit over cost for the person making the choice. Only wants of person making choice is relevant to determine its rationality. Choices can be: **all-or-nothing** (apple or university degree) and **how much** (whether to buy a secondary banana or not).

### **Benefit: What You Gain**

Benefit is the gain or pleasure that something brings and is determined by an economic agent’s preferences. Benefit is measured by what you are willing to give up. In a monetary economy this is often measured by what you are willing to pay for something.

### **Cost: What You Must Give Up**

Cost refers to what you must give up to get something.

### Economics as Social Science and Policy Tool

#### **Economics as Policy Tool**

Economics provides a way of approaching problems in all aspects of our lives:

- Personal: Should you take out a student loan?
- Business: Is cricketer Steve Smith worth a few million dollars per year?
- Government: How can the government balance its budget?

## **Economics as a Social Science**

Economists try to understand and predict the effects of economic forces by using the **scientific method** first developed by physicists. The scientific method is a common sense way of systematically checking what works and what doesn't work. An economist begins with a question or a puzzle about cause and effect arising from some observed facts.

To answer such questions, economists create and test **economic models**. An economic model is a description of some aspect of the economic world that includes only those features that are needed for the purpose at hand. For example, an economic model of a cell-phone network might include features such as the prices of calls, number of cell phone users, and the volume of calls. But the model would ignore cell-phone colours and ringtones. **A model is tested by comparing its predictions with the facts. BUT testing an economic model is difficult because we observe the outcomes of the simultaneous change of many factors.**

To cope with this problem and check an economic model against the facts, economists use:

- **Natural experiments:** situations that arises in the ordinary course of economic life in which the one factor of interest is different and other things are similar or equal.
- **Statistical investigations:** looks or finds for a correlation or correlations. A correlation is the tendency for the values of two variables to move together in a predictable and related way.
- **Economic experiments:** puts people in a decision-making situation and varying the influences of one factor at a time to discover how they respond.

## **Positive Statements**

A positive statement is about what *is*. It says what is currently believed about the way the world operates. A positive statement might be right or wrong but can be tested by checking it against the facts. A central task of economists is to test positive statements about how the economy world works and to weed out those that are wrong.

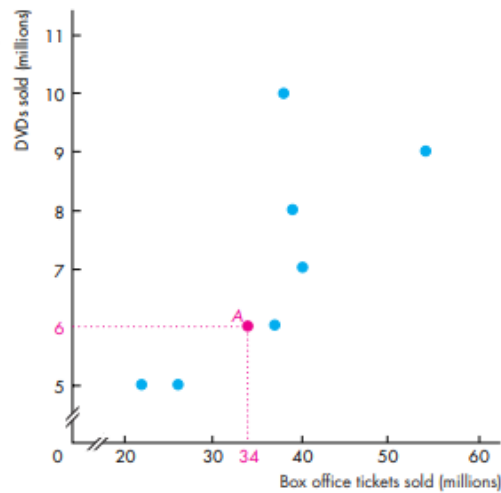
## **Normative Statements**

A normative statement is what ought to be. It depends on values and cannot be tested. Policy goals are normative statements. For example, "We ought to cut our use of coal by 50 percent" is a normative policy statement.

## Graphs in Economics

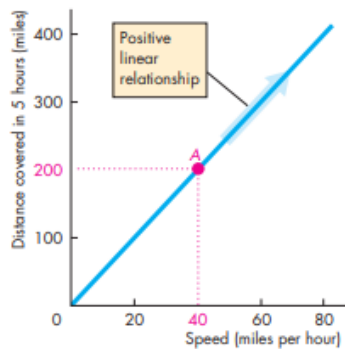
**FIGURE A1.3** A Scatter Diagram

| Movie   | Tickets<br>(millions) | DVDs<br>(millions) |
|---|-----------------------|--------------------|
| <i>Twilight</i>                                   | 38                    | 10                 |
| <i>Transformers:<br/>Revenge of the Fallen</i>    | 54                    | 9                  |
| <i>Up</i>   | 39                    | 8                  |
| <i>Harry Potter and<br/>the Half-Blood Prince</i> | 40                    | 7                  |
| <i>Star Trek</i>                                  | 34                    | 6                  |
| <i>The Hangover</i>                               | 37                    | 6                  |
| <i>Ice Age:<br/>Dawn of the Dinosaurs</i>         | 26                    | 5                  |
| <i>The Proposal</i>                               | 22                    | 5                  |

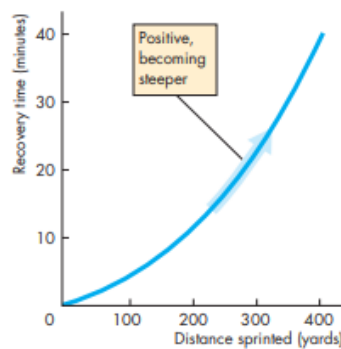


The table lists the number of tickets sold at the box office and the number of DVDs sold for eight popular movies. The scatter diagram reveals the relationship between these two variables. Each point shows the values of the two variables for a specific movie. For example, point A shows the point for *Star Trek*, which sold 34 million tickets at the box office and 6 million DVDs. The pattern formed by the points shows that there is a tendency for large box office sales to bring greater DVD sales. But you couldn't predict how many DVDs a movie would sell just by knowing its box office sales.

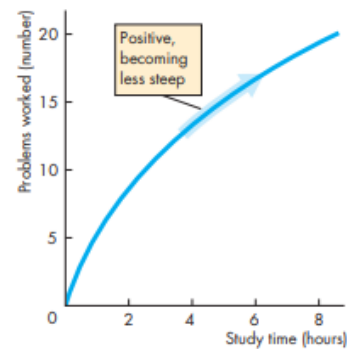
**FIGURE A1.5** Positive (Direct) Relationships



**(a) Positive linear relationship**



**(b) Positive, becoming steeper**



**(c) Positive, becoming less steep**

Each part shows a positive (direct) relationship between two variables. That is, as the value of the variable measured on the x-axis increases, so does the value of the variable measured on the y-axis. Part (a) shows a linear positive relationship—as the two variables increase together, we move along a straight line.

Part (b) shows a positive relationship such that as the two variables increase together, we move along a curve that becomes steeper.

Part (c) shows a positive relationship such that as the two variables increase together, we move along a curve that becomes flatter.