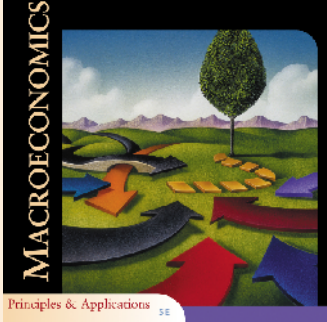


Robert E. HALL
&
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MACROECONOMICS
Principles & Applications 5E

PowerPoint slides prepared by:
Andreea Chiritescu
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Macroeconomics: Principles & Applications

CHAPTER I

What Is Economics?

Robert E. Hall
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PowerPoint slides prepared by:
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Scarcity and Individual Choice

- **Economics**
 - Study of choice under conditions of scarcity
- **Scarcity**
 - A situation in which the amount of something available
 - Is insufficient to satisfy the desire for it

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Scarcity and Individual Choice

- **Scarcity of time**
 - Limited number of hours in each day
- **Scarcity of spending power**
 - Limited spending power
- **Because of scarcity**
 - We have to make choices

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The Concept of Opportunity Cost

- **Opportunity cost**
 - What is given up when taking an action or making a choice
- **The opportunity cost of college**
 - **Explicit costs**
 - Tuition, fees, books, supplies
 - **Implicit costs**
 - Forgone income

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Table 1: Average cost of a year of college, 2008-2009

Type of Institution	Two-Year Public	Four-Year Public	Four-Year Private
Tuition and fees	\$2,402	\$6,585	\$25,143
Books and supplies	\$1,036	\$1,077	\$1,054
Room and board	\$7,341	\$7,748	\$8,989
Transportation and other expenses	\$3,275	\$2,916	\$2,204
Total out-of-pocket costs	\$14,054	\$18,326	\$37,390

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The Concept of Opportunity Cost

- **Explicit cost**
 - The dollars sacrificed—and actually paid out—for a choice.
- **Implicit cost**
 - The value of something sacrificed when no direct payment is made
- **The opportunity cost of a choice**
 - Explicit costs
 - Implicit costs

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The Concept of Opportunity Cost

- **Is college the right choice?**
 - Costs
 - May be lower – scholarship
 - Hate college
 - Benefits
 - Financial – higher earnings
 - Enjoy college
- **Time is money**

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Scarcity and Social Choice

- **Resources**
 - The labor, capital, land and natural resources, and entrepreneurship
 - That are used to produce goods and services
- **Problem: scarcity of resources**

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The Four Resources

1. **Labor**
 - Time human beings spend producing goods and services
2. **Capital**
 - A long-lasting tool that is used to produce other goods
 - Physical capital
 - Human capital

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The Four Resources

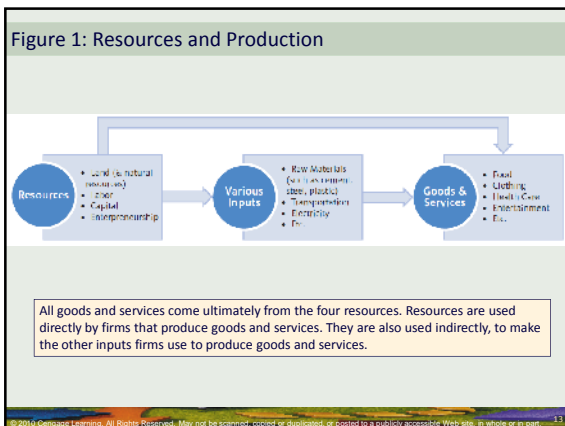
- **Physical capital**
 - Part of the capital stock - physical goods, such as machinery, equipment, and factories.
- **Human capital**
 - Skills and training of the labor force
- **Capital stock**
 - Total amount of capital in a nation
 - Productively useful at a particular point in time

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The Four Resources

3. **Land**
 - Physical space on which production takes place
 - And the natural resources that come with it
4. **Entrepreneurship**
 - Ability and willingness to combine the *other* resources into a productive enterprise
- **Input**
 - Anything used to produce a good or service

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Opportunity Cost and Society's Tradeoffs

- **For the society**
 - Opportunity cost arises from scarcity of resources
- **Virtually all production: opportunity cost**
 - To produce more of one thing
 - Society must shift resources away from producing something else

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The World of Economics

- **Microeconomics**
 - Behavior of individual households, firms, and governments
 - Choices they make
 - Their interaction in specific markets.
- **Macroeconomics**
 - Behavior of the overall economy

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Positive and Normative Economics

- **Positive economics**
 - The study of how the economy works
- **Normative economics**
 - The practice of recommending policies to solve economic problems
- **Policy differences among economists**
 - Positive disagreements
- **Differences in values**

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Why Study Economics?

- **To understand the world better**
 - Global and catastrophic events; personal events
- **To achieve social change**
 - Making the world a better place
- **To help prepare for other careers**
- **To become an economist**
 - Universities, banks, manufacturing, media, government, international agencies


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The Methods of Economics

- **Model**
 - An abstract representation of reality
 - Should be as simple as possible to accomplish its purpose
 - Makes two types of assumptions
 - Simplifying assumptions
 - Critical assumptions

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Figure 2: Maps as models



These maps are models. But each would be used for a different purpose

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The Methods of Economics

- **Simplifying assumption**
 - Any assumption that makes a model simpler without affecting any of its important conclusions
- **Critical assumption**
 - Any assumption that affects the conclusions of a model in an important way

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How to Study Economics

- **Active studying**
 - Read with a pencil in your hand and a blank sheet of paper in front of you
 - Close the book periodically; *reproduce what you* have learned
 - List the steps in each logical argument
 - Retrace the flow of cause and effect in each model
 - Draw the graphs

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APPENDIX

Tables and graphs

- **Positive relationship**
 - A rise in one variable is associated with a rise in the other variable
- **Negative / inverse relationship**
 - A rise in one variable is associated with a fall in the other variable
- **Independent and dependent variables**
 - Changes in an independent variable cause changes in a dependent variable

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Table A.1: Advertising and sales at Len & Harry's

Advertising Expenditures (\$1,000 per Month)	Sales (\$1,000 per Month)
2	24
3	27
6	36
7	39
11	51
12	54

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APPENDIX

Graphs

- **Vertical axis**
 - Dependent variable
- **Horizontal axis**
 - Independent variable
- **Origin**

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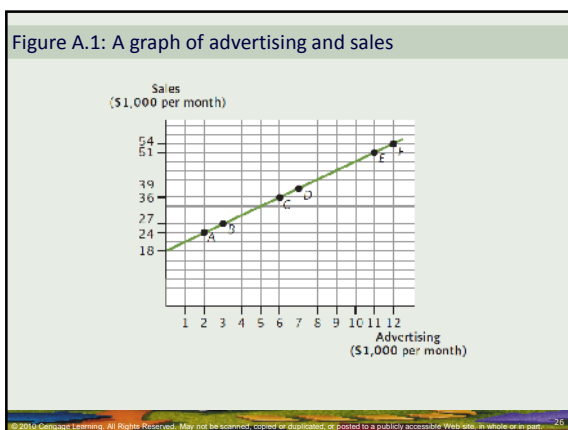
APPENDIX

Straight-lines graphs

- **Straight-lines graphs**
 - The “rate of change” of one variable compared with the other is always the same
- **Slope of the line**
 - The rate of change of the *vertically measured variable* for a one-unit change in the *horizontally measured variable*

$$= \frac{\text{Change in vertical variable}}{\text{Change in horizontal variable}} = \frac{\Delta y}{\Delta x}$$

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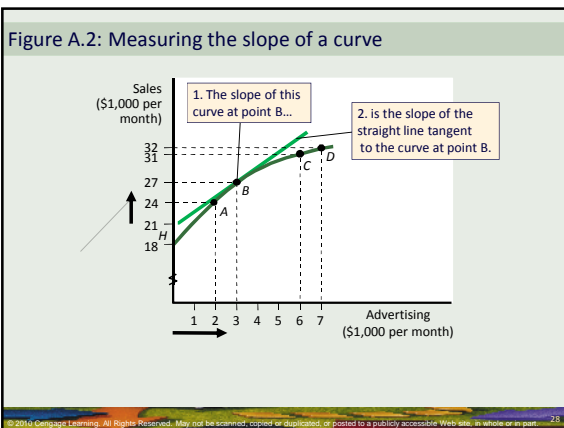


APPENDIX

Curved Lines

- **Slope of the curve**
 - Changes as we move along the curve
 - At a specific point along the curve
 - Is the slope of the tangent at that point
- **Tangent line**
 - A *straight line that touches the curve at just one point*
 - Has the same slope as the curve at that point

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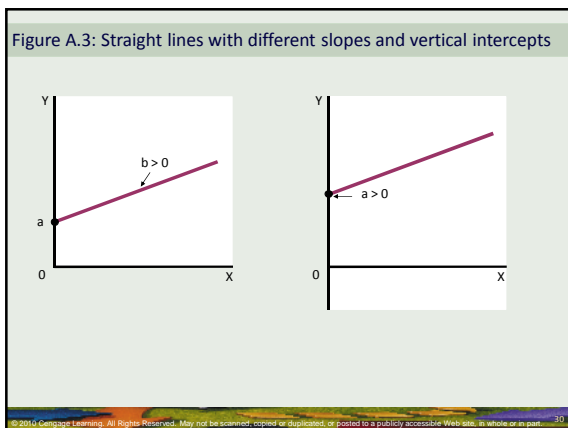


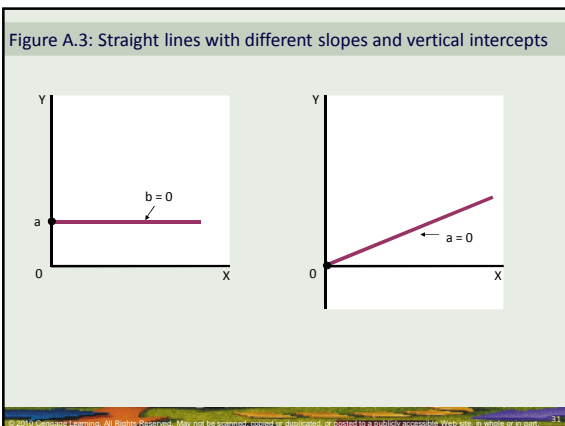
APPENDIX

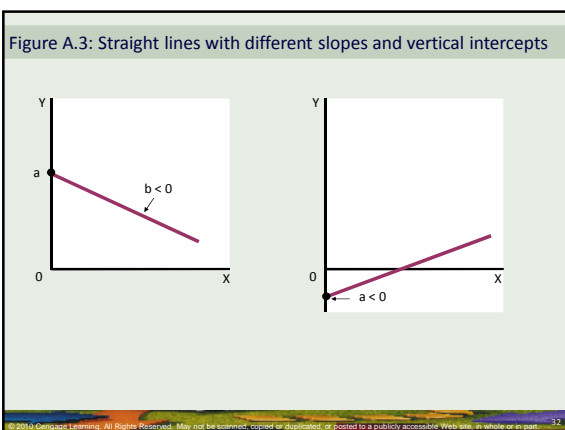
Linear Equations

- **Straight line**
 - Linear equation
 - Y – variable on the vertical axis
 - X – variable on the horizontal axis
 - $Y=a+bX$
 - a and b – numbers
 - a – vertical intercept
 - b – slope of the line

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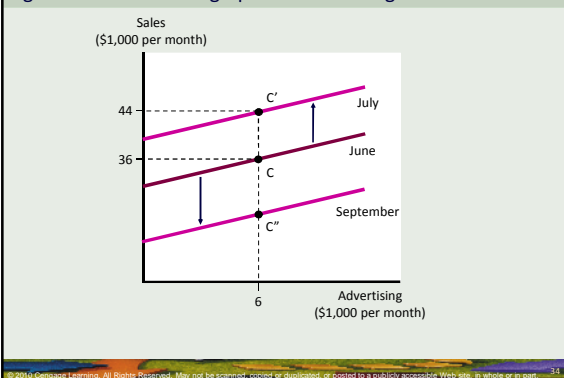
APPENDIX

How straight lines and curves shift

- A graph between two variables X and Y
 - Picture of their relationship when all other variables affecting Y are held constant
- Graph of the relationship between X and Y shifts upward as Z increases
 - An increase in Z causes an increase in Y, at any value of X

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Figure A.4: Shift in the graphs of advertising and sales



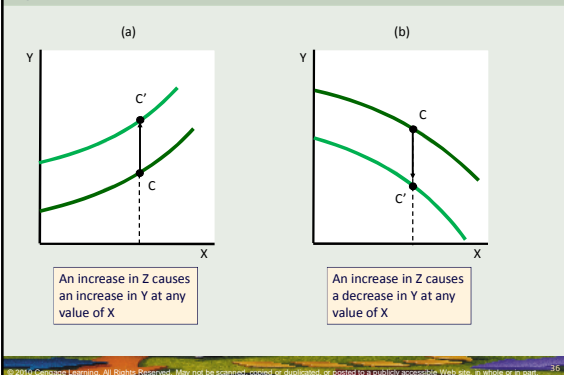
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How straight lines and curves shift

- Graph of the relationship between X and Y shifts downward as Z increases
 - An increase in Z decreases the value of Y, at any value of X

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Figure A.5: Shifts of curved lines



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Shifts vs. movements along a line

- **Graph**
 - Y – dependent variable
 - X – independent variable
 - If X changes - move along the line
 - If any other independent variable changes, the entire line shifts
- **Any other independent variable**
 - Any variable that actually affects Y but is not measured on either axis in the graph

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APPENDIX

Solving equations

- **To solve for X in any equation**
 - Rearrange the equation
 - Rules of algebra
 - X appears on one side of the equals sign
 - Everything else in the equation appears on the other side.

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