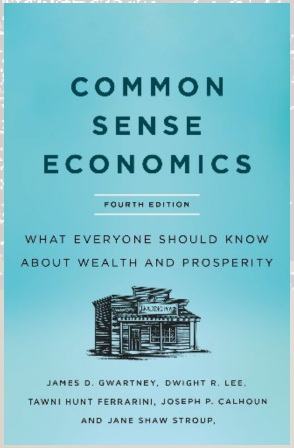
Part 1: Twelve Key Elements of Economics



Common Sense Economics ~
What Everyone Should Know About Wealth and Prosperity

http://CommonSenseEconomics.com/

INTRODUCTION TO POWERPOINT SLIDES

- The PowerPoint slides for the Common Sense Economics (CSE 4.0) electronic package provide an overview of the most important points covered in the text. Students should read the text, watch the assigned videos, and listen to the podcasts prior to reviewing the slides.
  - **CSE Slide Overview:** Identification of essential elements, key concepts, and economic content standards featured in text, videos, podcasts, and interactives.
  - **Module Organization:** Slides by module for weekly coverage; 15 core modules. Includes titles, concepts, highlights, and questions.
  - **Classroom Use:** Ideal for instruction and learning. Offers comprehensive notes and explanations on CSE text that can be used by the course instructor or students.

THE TWELVE KEY ELEMENTS OF PART 1

- Provides a bridge between common sense and basic principles of economics,
- Helps you begin to "think like an economist," and
- Offers important insights with regard to how the world really works.

MODULE 1 ECONOMIC FUNDAMENTALS CSE 1.1, 1.2, 1.3 ELEMENTS

- **CSE 1.1** Incentives matter: Changes in benefits and costs will influence choices in predictable ways.
- **CSE 1.2** All choices involve costs.
- **CSE 1.3** Decisions are made at the margin.

MODULE 1 ECONOMIC FUNDAMENTALS CSE 1.1, 1.2, 1.3 CONCEPTS AND STANDARDS

- **Key Concepts**
  - Incentives
  - Scarcity
  - Opportunity costs
  - Marginalism
- **Economic Content Standards**
  - Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others. (Standard 1: Scarcity)
  - Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Most choices involve doing a little more or a little less of something; few choices are all-or nothing decisions. (Standard 2: Decision-making)
  - People respond predictably to positive and negative incentives. (Standard 4: Incentives)

ELEMENT 1.1. INCENTIVES MATTER.

- **People usually respond predictably to positive and negative incentives.**
- Changes in benefits and costs will influence choices in a predictable manner.
  - **Increase Costs:** When the cost of an action increases, individuals will be less likely to choose it.
  - **Increase Benefits:** When the benefits of an action increase, individuals will be more likely to choose it.

ELEMENT 1.1. INCENTIVES MATTER.

- **Basic Postulate of Economics:** Incentives matters is a simple idea.
- Incentives matters is sometimes called the basic postulate of economics.
- It is a powerful tool because this fundamental principle underlines decision-making across various contexts.

WHAT ARE INCENTIVES?

- **Incentives** are the additional rewards and penalties associated with the choices people make.
- **Changes in incentives** alter the behavior of individuals.
- **Incentives influence choices** of individuals in all areas—personal, business, and political.

EXAMPLES OF INCENTIVES

- Incentives are the additional rewards and penalties associated with the choices people make.
- **Can you???**
  - Describe the rewards that serve as incentives for positive classroom behavior.
  - Identify some of the penalties that disincentivize Olympic athletes from negative behavior if they want to stay on their teams.
  - Explain why some students will do extra-credit work and some will not, highlighting the possibility that individuals may respond differently to the same incentives.
- Incentives influence choices of individuals in all areas—personal, business, and political.

EXCESS DEMAND: INCENTIVES IN THE MARKETPLACE

- **Price change** alters the incentives confronted by both buyers and sellers. For example,
  - Higher prices will encourage buyers to purchase less.
  - Higher prices will encourage sellers to supply more.
- When **excess demand** exists, consumers want to buy more than sellers are willing to supply at a particular price. So, price will usually rise.
  - The **price increase** will entice producers to **increase the quantity supplied** while, simultaneously **decrease the quantity purchased** as consumers buy less.
  - The **price increase will cease** when the quantity demanded is brought into balance with quantity demanded.

Excess Supply: Incentives in the Marketplace

Question: How can price change eliminate excess supply in the marketplace?

- There was a time when dairy farmers in the European Union supplied more milk than consumers demanded at the prevailing market price. This is an example of **excess supply** in the market.
- Explain **how a change in the price** of milk might help **eliminate the excess supply**, highlighting the impact on milk producers and consumers.

EXCESS SUPPLY: THE ROLE OF INCENTIVES AND PRICES IN MARKET COORDINATION

- **The problem of excess supply:** Excess supply exists when producers supply more than consumers are willing to purchase at the prevailing price.
- **Solution:** Producers can lower price to entice consumers to purchase more milk.
- A lower market price results in an increase in the quantity demanded of milk by consumers and a decrease in the quantity supplied by producers.
- The price will continue to drop until the market is in balance with quantity demanded matching quantity supplied and there is no excess supply.

THE ROLE OF INCENTIVES AND POLITICAL ACTION

- Incentives affect political as well as market choices.
- **Voters** will consider how the expected actions of candidates will affect their personal well-being.
- **Politicians** will consider how their positions will affect their chances of being elected, getting re-elected, and other political aspirations.
- **Why do people run for office? Make political contributions? Volunteer for political campaigns?**
- Incentives provide the answers in all cases.

THE MYTH OF GREED-DRIVEN INCENTIVES

- Some people think that incentives matter *only* when people are greedy and selfish. This is false.

- Changes in costs and benefits will influence the actions of everyone, from the altruistic to the greedy.
  - Both the selfish and the altruistic person will be more likely to attempt to rescue a child in a shallow swimming pool than in the rapid currents approaching the edge of Niagara Falls.
  - Both are more likely to donate their gently-used clothes rather than their best clothes.

SELF-INTEREST GUIDES BEHAVIOR

- Whether altruistic, selfish, or anywhere in between, people respond to incentives.
- Their self-interest attracts them toward what they value the most while repelling them against what they value the least and repels them.

- **Self-interested** behavior is the focus of fundamental economics with intense study on how individuals pursuit of self-interested activities promotes the general welfare when their actions and interactions are voluntary and mutually beneficial. This leaves the study of the actions of the selfish, greedy, and corrupt to the field specialists unless otherwise noted.

CSE 1.2. EVERYTHING HAS A COST.

- There is ***no such thing as a free lunch***. Goods, services, resources, time, and energy are scarce. Therefore, we must make choices involving tradeoffs.

- **Scarcity:** This is the reality of life on our planet. Productive resources are limited, while the human desire for goods and services is virtually unlimited.

- A resource is called **scarce** if there are alternative or competing uses for it.

OPPORTUNITY COST

Since we are constantly faced with the reality of scarcity, we must make choices. They have consequences and involve tradeoffs.

- **Consequences of Choices:** Opting for one path requires sacrificing resources like time and energy that could have been allocated elsewhere.

- **Defining Opportunity Cost:** The highest valued alternative good or activity that must be sacrificed as a result of choosing an option. It represents the most valuable alternative forgone to pursue a chosen option.

- **The Economics of Trade-offs:** Economic decision-making involves weighing one option against another – the second best.

- **Decision-making Rule:** When choosing, we constantly make trade-offs in our decisions. When thinking like an economist focus on the top two. Choose that option that generates the highest benefit and requires the least sacrifice.

OPPORTUNITY COST

- Costs involving money are common.
  - Money spent on one purchase limits availability of funds for other purchases or saving.
- However, opportunity costs also often involve time-related and energy costs.
  - Activities like attending a football game, watching TV, or strolling on the beach each have an associated opportunity cost in terms of time not spent on alternative activities.
- EVERYTHING worth doing HAS A COST.

THE COSTLINESS OF IGNORING OPPORTUNITY COST

- Some argue that there are things so important that they should done without consideration for cost.
- The reality is that costs include the value of alternatives not chosen. Ignoring them is impractical and can lead to mistakes and unsound decisions.
- So, advocating for actions without cost consideration requires overlooking the significance of alternative options.

OPPORTUNITY COST

- Politicians often speak of "free" education, "free" healthcare, and "free" housing, but this "free" terminology is deceptive.
- The provision of each requires the use of scarce resources with competing uses.
- Governments can shift costs out of one use and into another, but they can cannot eliminate them.

CSE 1.3. THINK ON THE MARGIN.

- **Decisions are made at the margin:** If we want to get the most value out of our resources, choose options where the marginal benefit exceeds the marginal cost by the most.

- **Decision-making Rule: Undertake** actions when the additional benefit exceeds the additional cost and **reject** them when the marginal cost exceeds the marginal benefit.

- This **principle of sound decision-making** applies to individuals, businesses, government officials, and society as a whole.

MARGINALISM

- **Marginal** means additional.
- Most decisions are made on the margin. Few, if any, decisions are "all-or-nothing."
- Marginalism is seldom ignored in our personal decisions, but frequently in our conversations and in politics.
- To get the most out of our resources, we should only take an action when the marginal benefits are greater than the marginal costs.

EXAMPLES OF MARGINAL DECISION-MAKING

How clean is clean? Do you clean 100% of the dirt away when…

- When you clean up your place?
- When company is coming?
- When selling your house?
- In each case, you stop cleaning before the marginal cost outweighs the expected marginal benefit which vary depending on circumstances.

MODULE 1: QUESTIONS FOR THOUGHT

1. How will higher wages impact the labor force participation of women? How will it affect the birth rate? What is the net impact of higher wages after considering the two?

2. A restaurant offers an "all you can eat" lunch buffet for $10. After eating three buffet servings, Jim is trying to decide whether to go back for a fourth. Describe how Jim can use marginal analysis to make his decision.

MODULE 1: QUESTIONS FOR THOUGHT

3. Maria needs to buy gasoline and is considering washing her car. If she buys 9 gallons of gasoline at $2.50 per gallon, the car wash costs $2. If she buys 10 gallons of gasoline, the car wash is free. For Maria, the marginal cost of the tenth gallon of gasoline and a car wash is
   a) $0.00
   b) $0.50
   c) $2.00
   d) $2.50

Answer: 50 cents (=$2.50 - $2.00)

MODULE 2. MARKET COORDINATION CSE 1.4, 1.5, 1.6 ELEMENTS

- CSE 1.5 Voluntary trade promotes economic progress.
- CSE 1.6 Transaction costs are obstacles to trade.
- CSE 1.7 Prices bring the choices of buyers and sellers into balance.

MODULE 2. MARKET COORDINATION CSE 1.4, 1.5, 1.6 CONCEPTS

Key Concepts

- Comparative Advantage
- Gains from trade
- Transaction costs
- Demand and supply
- Market equilibrium

MODULE 2. MARKET COORDINATION CSE 1.4, 1.5, 1.6 STANDARDS

- Voluntary exchange occurs only when all participating parties expect to gain. This is true for trade among individuals or organizations within a nation, and among individuals or organizations in different nations. (Standard 5: Trade)
- When individuals, regions, and nations specialize in what they can produce at the lowest cost and then trade with others, both production and consumption increase. (Standard 6: Specialization)
- A market exists when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services. (Standard 7: Markets and Prices)
- Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives. (Standard 8: Role of Prices)

CSE 1.4 VOLUNTARY TRADE PROMOTES ECONOMIC PROGRESS.

- The **foundation of voluntary trade** is mutual gain.
- **Voluntary trade** is mutually advantageous: For an exchange to occur, the trading partners must agree that they both gain more than they sacrifice.
- Voluntary trade is a **win-win activity**, not win-lose.

THREE MAJOR SOURCES OF GAINS FROM TRADE

1. **Trade moves goods** from people who value them less to people who value them more.

2. Trade **makes larger outputs and higher consumption and investment possible** because of specialization.

3. Trade makes larger outputs and higher consumption and investment possible because it **facilitates gains from the lower per-unit costs** that often accompany large scale production.

COMPARATIVE ADVANTAGE AND GAINS FROM TRADE

- **The Law of Comparative Advantage:** Trading partners can produce a larger joint output if each specializes in the production of items for which they are the low opportunity cost producer. This law applies to individuals, businesses, and nations.

- Each trading partner gains when they specialize in the production of items for which they are a low opportunity cost producer and trade for items that they can produce only at a high opportunity cost.

THE SCOPE OF TRADE IS BROAD

- Going to a movie or the gym
- Shopping at a grocery store
- Having a garage sale
- Renting a house or an apartment
- Making things with products from other states or countries
- Buying imports from China and Mexico

THE IMPORTANCE OF TRADE IN OUR MODERN WORLD

- **Trade Expands Our Choices and Lowers the Prices We Pay:** Trade allows us to enjoy more goods and services than we could ever make ourselves. Think about how tough and costly it would be to create everything you use daily, from your clothes and food to your smartphone and car.

- **Impact of Trade Barriers:** When countries limit trade within their borders or internationally, they restrict the benefits and overall prosperity that come from trading.

CSE 1.5 TRANSACTION COSTS ARE AN OBSTACLE TO TRADE.

- Transaction costs reduce the volume of trade and the gains it generates.

- Lower transaction costs will increase the volume of, and the gains from, trade.

TRANSACTION COSTS

- **Transaction costs**
  - They are the additional expenses involved in buying, selling, or exchanging goods and services beyond the price of the goods themselves. These can include both monetary and non-monetary costs, such as time and effort.
- **Are resources spent on**
  - Searching out trading partners
  - Searching out product information
  - Negotiating terms of trade
  - Closing sales

EXAMPLES OF TRANSACTION COSTS

1. **Buying Concert Tickets Online**
   - Monetary Costs: Service fees added at checkout.
   - Non-Monetary Costs: Time spent searching for the best seats or deals.
2. **Applying to College**
   - Monetary Costs: Application fees, standardized test fees, and potentially visiting campuses.
   - Non-Monetary Costs: Time to fill out applications, write essays, and study for standardized tests.
3. **Participating in Team Sports or Clubs**
   - Monetary Costs: Membership fees, uniforms, or travel expenses for competitions.
   - Non-Monetary Costs: Time spent at practice sessions, meetings, and events.

WHY DO WE EXPERIENCE TRANSACTION COSTS?

- **Searching:** Time and effort must be spent looking for the right product or service.
- **Negotiating:** Working out a deal can be time-consuming.
- **Making Decisions:** Choosing what's best requires research and can involve fees.
- **Keeping Promises:** Ensuring everyone sticks to the deal might require contracts and can lead to legal costs if they don't keep the agreement.
- **Missed Opportunities:** The time and resources you use on one thing could have been used on something else.
- **Stress:** Worrying about making the right choice or getting a good deal.
- **Effort and Travel:** Sometimes, you need to physically exert yourself or travel, which costs time and money.

MIDDLEMEN, GAINS FROM TRADE, AND TRANSACTION COSTS

"Middlemen" reduce transaction costs, increase the volume of trade, and improve the way we live and do business. This is why people value their services. For example:

- **Wholesalers** bulk buy and sell goods, reducing the effort retailers need to put into sourcing products.
- **Real Estate Agents** simplify home buying and selling processes, handling negotiations and paperwork.
- **Financial Advisors and Brokers** provide personalized investment services and advice, helping clients navigate complex financial markets efficiently.

TECHNOLOGY AND TRANSACTION COSTS

- In recent years, **technology has reduced the transaction costs** of numerous exchanges.
- With just a few swipes on a touch screen one can shop for movies, clothing, and household goods, locate a hotel room, obtain tickets for a major concert or big football game, and even hail a taxi.
- Reductions in transaction costs have increased the volume of trade and enhanced our living standards. For example,
  - **Online Marketplace** platforms offer a one-stop shop for buyers and sellers to find each other, offer products, and negotiate terms easily.
  - **Ride-sharing apps** reduce the time and effort spent finding transportation by directly connecting drivers with passengers.
  - **Payment Processing Companies** like PayPal or Venmo offer secure, quick payment options, and streamline online transactions

CSE 1.6 PRICES BRING THE CHOICES OF BUYERS AND SELLERS INTO BALANCE.

- The market price of a good reflects the forces of demand and supply.

- This price will tend to bring the quantity demanded and quantity supplied into balance.

DEMAND SIDE OF A MARKET

- The demand curve represents the response of buyers (consumers) to a change in price.

- **Law of Demand:** There is an inverse relationship between the price of a good and the quantity that buyers are willing to purchase when other things are held constant.
  - As the price of a good increases, consumers purchase less of the good.
  - As price decreases, consumers will purchase more.

SUPPLY SIDE OF A MARKET

- The supply curve represents the response of sellers (producers) to a change in price.

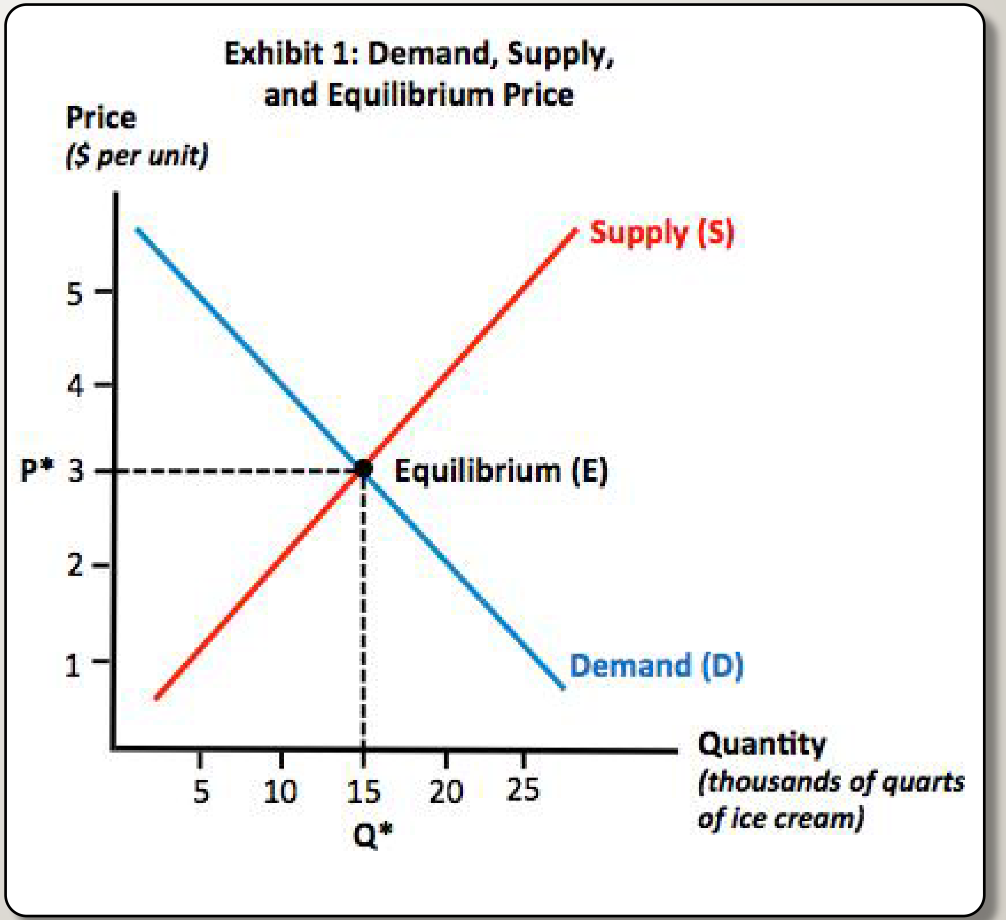
- **Law of Supply:** There is a positive relationship between the price of a good and the quantity that sellers are willing to supply when other things are held constant.
  - As the price of a good increases, sellers are willing to supply more of the good.
  - As price decreases, sellers will supply less.

MARKET EQUILIBRIUM

- Equilibrium occurs at the price where the amount of the good demanded by consumers is just equal to the amount sellers are willing to supply.
- The choices of buyers and sellers will move the market toward equilibrium.
- Consumers will purchase only units that they value more than price. Similarly, producers will supply only units that can be produced at a cost less than price.
- In equilibrium, all mutually advantageous exchanges will occur.

DEMAND, SUPPLY, AND EQUILIBRIUM PRICE

- Here we illustrate the impact of price on ***quantity demanded*** and ***quantity supplied***.
- There is an inverse relationship between price and ***quantity demanded***.
- There is a positive relationship between price and ***quantity supplied***.
- As shown here, price will tend to move toward the equilibrium, where ***quantity demanded*** and ***quantity supplied*** are equal.



WHAT DETERMINES IF A GOOD WILL BE PRODUCED?

- In a market economy, businesses and firms will search for the opportunity to produce goods for which sales revenue exceeds their costs. It is how they remain open, employing people and paying for other resources.

- Businesses and firms will continue to produce a good or service only if consumers are willing to pay a price that is greater than or equal to their per unit costs.

DEMAND CURVE SHIFTERS

- The following changes will lead to a change in demand (a shift in the entire curve):
  - Consumer income
  - Number of consumers
  - Price of a related good
  - Changes in expectations
  - Demographics
  - Consumer tastes and preferences
  - Tax rates and government policies targeting individuals as consumers, not producers

CHANGES IN DEMAND AND QUANTITY DEMANDED

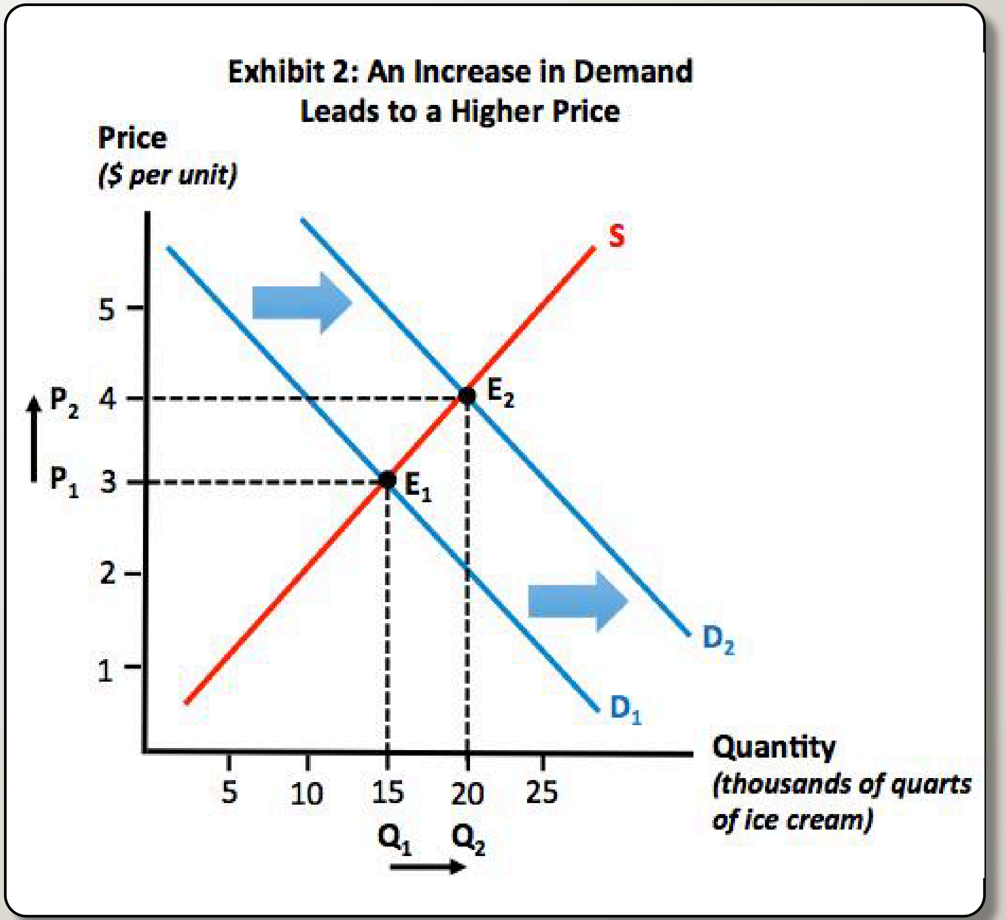
- **Change in Demand:** a *shift in the entire demand curve* in response to *a factor other than a change in its price* in that good, service, or resource.

- **Change in Quantity Demanded:** a *movement along* the same demand curve in response to *a change in its price*.

THE IMPACT OF AN INCREASE IN DEMAND

- Here we illustrate the impact of an increase in ***demand*** (shift from D_1 to D_2) for ice cream such as would result from higher income levels or higher prices for frozen yogurt, a substitute for ice cream.

- The increase in ***demand*** leads to a higher equilibrium price ($4) for ice cream and an increase in quantity exchanged.



EFFECTS OF A CHANGE IN DEMAND

- **When demand decreases:** the equilibrium price and quantity will fall.

- **When demand increases:** the equilibrium price and quantity will rise.

SUPPLY CURVE SHIFTERS

- The following will cause a **change in supply** (a shift in the entire curve):
  - Changes in resource prices
  - Changes in technology
  - Elements of nature and political disruptions
  - Changes in taxes, subsidies, or government regulations

CHANGES IN SUPPLY AND QUANTITY SUPPLIED

- **Change in Supply:** a shift in the entire supply curve.

- **Change in Quantity Supplied:** movement along the same supply curve in response to a change in its price.

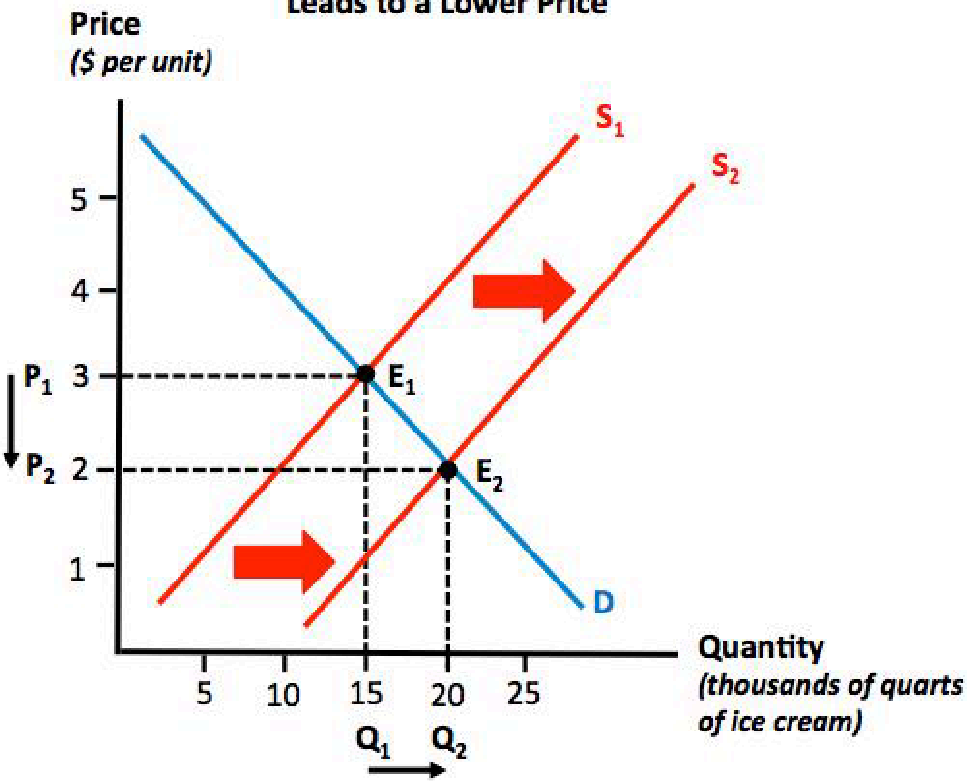
THE IMPACT OF AN INCREASE IN SUPPLY

- Initially, the demand (***D***) and supply (***S_1***) of ice cream resulted in an equilibrium of $3.

- The ***supply*** curve reflects the cost of producing the product. Suppose the initial equilibrium was disrupted by an increase in ***supply*** (shift from ***S_1*** to ***S_2***) for ice cream such as would result from lower prices of milk, cream, and sugar (ingredients used to make ice cream).

- The increase in ***supply*** leads to a lower equilibrium price ($2) for ice cream and an increase in quantity exchanged.

Exhibit 3: An Increase in Supply Leads to a Lower Price



EFFECTS OF A CHANGE IN SUPPLY

- **When supply decreases:** the equilibrium price will rise and the equilibrium quantity will fall.

- **When supply increases:** the equilibrium price will fall and the equilibrium quantity will rise.

THE MARKET ADJUSTMENT PROCESS

- The market adjustment process does not occur instantaneously. It takes time for both consumers and producers to respond to changes in market conditions.

- In a dynamic world, the adjustment process is continuous. The impact of changes in demand and supply and factors that underlie shifts in these curves are central to the understanding of the market process.

MODULE 2: QUESTIONS FOR THOUGHT

1. Why do you trade for things rather than produce them yourself? Would you be better off if you did not buy so many things from others? Would Americans in general be better off if they did not buy so many things from producers in other countries?

2. How have the following influenced the volume of trade: a) the internet, b) the interstate highway system and c) tariffs on goods purchased from sellers in other countries?

MODULE 2: QUESTIONS FOR THOUGHT

3. What impact would each of the following have on the demand (or supply) of beef and the market price of beef?
   - Lower pork prices
   - Higher consumer income
   - Consumer switch to eating plant-based food products
   - Higher prices of feed grains used to feed cattle

MODULE 2: QUESTIONS FOR THOUGHT

3. What impact would each of the following have on the demand (or supply) of beef and the market price of beef?
   - Lower pork prices (Decrease demand for beef since it is a beef substitute)
   - Higher consumer income (Increase demand for beef since consumers have higher incomes)
   - Consumer switch to eating plant-based food products (Decrease demand for beef since consumers prefer beef less and are switching to plant-based food products)
   - Higher prices of feed grains used to feed cattle (Decrease the supply of beef in response to higher production costs)

MODULE 3: MARKETS, PRICE COORDINATION, AND INCENTIVES
CSE 1.7, 1.8, 1.9 ELEMENTS

CSE 1.7 Profits direct businesses toward productive activities that increase the value of resources, while losses direct them away from wasteful activities. (Standard 7: Markets and Prices)

CSE 1.8 The "invisible hand" of market prices guides buyers and sellers toward activities promoting the general welfare. (Standard 8: Role of Prices)

CSE 1.9 Mistakes and misconceptions in economic analysis often occur because of failure to consider long-term consequences and secondary effects. (Standard 16: Role of Government and Market Failure)

MODULE 3: MARKETS, PRICE COORDINATION, AND INCENTIVES
CSE 1.7, 1.8, 1.9 CONCEPTS AND STANDARDS

CSE KEY CONCEPTS

- Profit and loss
- Market prices and the invisible hand principle
- Secondary effects and unintended consequences

ECONOMIC STANDARDS

- A market exists when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services. (Standard 7: Markets and Prices)
- Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives. (Standard 8: Role of Prices)
- There is an economic role for government in a market economy whenever the benefits of a government policy outweigh its costs. Governments often provide for national defense, address environmental concerns, define and protect property rights, and attempt to make markets more competitive. Most government policies also have direct or indirect effects on peoples' incomes.(Standard 16: Role of Government and Market Failure)

CSE 1.7 Profits direct businesses toward productive activities that increase the value of resources, while losses direct them away from wasteful activities.

- If we are going to get the most value out of the available resources, projects that increase value must be encouraged, while those that use resources counterproductively or wasted must be discouraged.

- This is precisely what profits and losses do.

BUSINESS AND PRODUCTION OF GOODS

- **Businesses purchase resources** (natural resources, labor, capital, and entrepreneurial talent) in order to produce goods and services.
- In a market economy, **producers will have to bid resources away** from their alternative uses because the owners of the resources will supply them only at prices at least equal to what they could earn elsewhere.
- The **producer's opportunity cost** of supplying a good or service will equal the payments required to bid the resources away from their other potential uses.

ECONOMIC COSTS VS. ACCOUNTING COSTS

- **Economic costs** include the costs of all resources required to produce a good, *including the opportunity costs* of assets owned by the firm.
- **Accounting costs** *omit the opportunity costs* of assets owned by the business or firm.
- Accountants focus on net income or revenue, which is slightly different than economic profit.
- The business's or firm's net income will overstate profit as measured the economist. Nevertheless, it is reported on the financials.

MEASUREMENT OF PROFIT

- **Total Revenue** = Price x Quantity (summed for each of the goods sold)

- **Total Cost** = The opportunity costs of all the resources required for the production of the good.

- **Profit** = Total Revenue – Total Cost

WHAT IS THE FUNCTION OF PROFIT AND LOSS?

- **Profit** is present when the value of the good (as indicated by the price that consumers are willing to pay), exceeds the value of the resources required for its production.

- **Profit** is a reward for transforming resources into something of greater value.

- **Loss** is present when the value of the good is less than the per-unit cost of the resources required for production.

- **Loss** penalizes businesses that produce goods and services that consumers value less than their unit cost, motivating them to search for other production opportunities valued by consumers.

THE ROLE OF PROFIT AND LOSS: AN EXAMPLE

- Suppose a business can produce 1,000 t-shirts at a total cost of $20,000.
  - What is the profit or loss if the shirts can be sold for $22 each?
  - How does the value of the t-shirts compare with the value of the resources used?
  - Is this a productive activity?

Scenario: Consumers are finding the t-shirts sold by the business stale and not so fashionable.

  - Now, suppose the t-shirts can be sold for only $17 each. What is the profit or loss?
  - In this case, how does the value of the t-shirts compare with the value of the resources used?
  - Is continuing to sell the unfashionable t-shirts a productive activity? Explain.

CSE 1.8 The "invisible hand" of market prices guides buyers and sellers toward activities promoting the general welfare.

Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to ***prefer that employment*** *which is* ***most advantageous to society****. He intends only his own gain, and he is in this, as in many other cases,* ***led by an invisible hand to promote an end which was not part of his intention****.*

—Adam Smith (1776)

WHAT IS THE "INVISIBLE HAND?"

- The "invisible hand" to which Smith refers is the price system.
- When guided by prices, individuals intend only their own gain, but their actions promote the goals of others, leading to greater prosperity.
- One statistic—the **prevailing market price** of a particular good or service—provides buyers and sellers with what they need to bring their actions into harmony with the best possible information on the current actions and preferences of others.

MARKET PRICES SUMMARIZE RELEVANT INFORMATION

- Friedrich Hayek, the 1974 Nobel prize winner, stressed: The primary function of markets is to provide information to both to buyers and sellers.

- Market prices reflect information about consumer preferences, costs, and matters related to timing, location, and circumstances. This information in any large market is well beyond the comprehension of any individual or central-planning authority.

- Market prices act like a giant computer network grinding out indicators that gives all participants equal access to both the information they need and equal incentive to act on it.

SELF-INTEREST GUIDED BY THE INVISIBLE HAND

- When guided by market prices, self-interested individuals will move toward activities that will promote the general welfare.
  - Consumers will purchase goods that they value highly relative to price.
  - Profit seeking producers will produce goods that consumer value highly relative to costs.
  - Because lower costs will mean higher profits, each producer will strive to keep costs down and quality up.
- The cooperation that comes from self-interest directed by the invisible hand of market prices is truly amazing. The combination of self-interest and the invisible hand is a powerful force for economic progress.

CSE 1.9 Mistakes and misconceptions in economic analysis often occur because of failure to consider long-term consequences and secondary effects.

Sound economics requires that when analyzing a change it is important to "trace not merely the immediate results but the results in the long run, not merely the primary consequences but the secondary consequences, and not merely the effects on some special group but the effects on everyone.

—Henry Hazlitt,

Economics in One Lesson

THE BROKEN WINDOW FALLACY

- Classic story: A child throws a ball breaking the window of a shop. Therefore, the shopkeeper hires a glazer to fix the broken window.
- Noting the highly visible employment of the glazer, some argue that the broken window benefits the community, on net.
- However, this ignores the secondary effects, requiring further investigation.
  - If the child hadn't broken the window the shopkeeper would have not fixed the window, releasing funds to spend elsewhere or to save.
  - Employment in the alternative areas of production or savings would have been larger and the community would have had spending elsewhere or savings by the shopkeeper plus an unbroken window.
  - Once the secondary effects are considered, destruction resulting from floods, hurricanes, public policy, or something else harm a society and fail to expand net employment.

WHY SECONDARY EFFECTS ARE IMPORTANT

- Failure to consider the unintended secondary effects is often a major source of economic error.

- Policy changes often generate unintended secondary effects. Consider the following examples.

MANDATED AUTO GASOLINE EFFICIENCY STANDARDS

- The standards are designed to reduce gasoline consumption, but there are secondary effects.
  - To meet the efficiency standards, manufacturers reduce the size and weight of vehicles and this results in about 2,500 more highway deaths per year.
  - The improved gas mileage causes people to drive more than they otherwise would.
  - Net Results: Increased congestion and smaller reduction in gasoline consumption than expected.

- Sound economics requires evaluation of these secondary effects.

TARIFFS, QUOTAS, AND OTHER TRADE RESTRICTIONS

- Tariffs, quotas, and other trade restrictions are designed to protect industries and their employees from global competition.
- But, there are **secondary effects attached to trade restrictions** .
  - Consumers pay **higher prices** for the products.
  - In the case of resources, the higher prices will increase the costs of the domestic firms using the resource.
    - Example: Trade restrictions lead to higher sugar prices, increasing the costs of U.S. candy manufacturers, causing them to move to other countries.
  - Import restrictions: Because **foreigners sell less in the U.S.,** they have fewer dollars to buy our exports and **U.S. exports are harmed**.
- As a result of these secondary effects, employment in the protected industries will expand, but there will be less employment in other industries. The net results are unclear.

PENCIL STUB STORY

- A first grade teacher paid students $0.10 or ten cents for pencil stubs.
- The intent was to discourage students from losing their pencils. But, there were secondary effects.
- The students quickly sharpened their pencils down to the stubs to get the 10-cent reward.
- Sound economics requires consideration of secondary effects.

MODULE 3: QUESTIONS FOR THOUGHT

1. Suppose you decide that it is in your self-interest to establish a computer repair business. Will others be better off or worse off if your business earns a profit? How will the well-being of your customers be affected?

2. Why are the quantities of apples, bananas, milk, television sets, laptop computers, and thousands of other items available in your hometown approximately equal to the quantities of these items that local consumers desire to purchase?

MODULE 3: QUESTIONS FOR THOUGHT

3. Under the 2009 "Cash for Clunkers" program, the government paid auto dealers up to $4,500 per vehicle to destroy 700,000 used cars that were traded in for new ones.
   - Determine if this program promotes the prosperity of Americans after factoring in the secondary effects of the government program.
   - Now suppose an outbreak of crime destroys 700,000 automobiles. Determine if Americans are better off under these circumstances. Explain any difference in your response.

MODULE 3: QUESTIONS FOR THOUGHT

3. A few days after the 2001 terrorist attacks on the World Trade Center and the Pentagon, Nobel Prize winning economist Paul Krugman made the statement below. Evaluate his views considering the primary and secondary consequences of a terror attack.
   - "Ghastly as it may seem to say this, the terror attack—like the original day of infamy, which brought an end to the Great Depression—could even do some economic good. The destruction isn't big compared with the economy, but rebuilding will generate at least some increase in business spending."

MODULE 4: PROVIDING VALUE, CREATING JOBS, AND FUELING PROSPERITY
CSE 1.10, 1.11, 1.12 ELEMENTS

CSE 1.10 People earn income by providing others with what they value. (Standard 13: Income)

CSE 1.11 Production of goods and services that people value, not just jobs, provides the source of high living standards. (Standard 13: Income)

CSE 1.12 Economic progress comes primarily through voluntary trade, investment, stable capital markets, better ways of doing things, and sound economic institutions. (Standard 15: Economic Growth)

MODULE 4: PROVIDING VALUE, CREATING JOBS, AND FUELING PROSPERITY
CSE 1.10, 1.11, 1.12 CONCEPTS AND STANDARDS

- **Concepts**
  - Helping others and receipt of income
  - Jobs versus the creation of wealth
  - Sources of economic progress

- **Economic Standards**
  - **Standard 13: Income** Income for most people is determined by the market value of the productive resources they sell. What workers earn primarily depends on the market value of what they produce.
  - **Standard 15: Economic Growth** Investment in factories, machinery, new technology, and in the health, education, and training of people stimulates economic growth and can raise future standards of living.

CSE 1.10 PEOPLE EARN INCOME BY PROVIDING OTHERS WITH WHAT THEY VALUE.

- Even people who are motivated mostly by the desire for income, will have a strong incentive to develop skills and take actions that are valuable to others.

- Moreover, people seeking high earnings will have a strong incentive to pay close attention to what others value.

EARNING INCOME BY HELPING OTHERS

- People are different in many ways. We have different productive abilities, preferences, specialized skills, attitudes, and willingness to take risks.
- Differences in income arise because our differences affect the value of goods and services we help create and supply.
- There is a direct link (ceteris paribus) between helping others in ways that they value and the income we earn.
- If you want to earn a high income, figure out how to help others a great deal.

INCENTIVES MATTER, AGAIN.

- The direct link between providing others with things they value and our personal earnings provides each of us with a strong incentive to develop our talents and skills.
  - College students are rewarded for improving their knowledge and skills.
  - Star athletes and entertainers are rewarded for their special skills.
  - Entrepreneurs are rewarded for their strategic risk-taking.

HIGHER INCOME AND LIVING STANDARDS

- Income and living standards cannot increase without an increase in the availability of goods and services that people value.

- Question: Can you think of anyone with substantial earnings who is not providing a good or service that others value highly?

CSE 1.11 PRODUCTION OF GOODS AND SERVICES THAT PEOPLE VALUE, NOT JUST JOBS, PROVIDES THE SOURCE OF HIGH LIVING STANDARDS.

- If jobs were the key to high incomes, we could easily create as many as we wanted.

- All of us could work one day digging holes and the next day filling them up.

- We would all be employed, but we would also be exceedingly poor because such jobs would not generate goods and services that people value.

THE FALLACY OF DESTROYING GOODS TO CREATE JOBS

- Politicians and proponents of government projects are fond of bragging about the jobs created by their programs. But, their programs sometimes reduce the availability of goods and services. Consider the following:
  - Agricultural Adjustment Act (AAA) of 1933
    - In an effort to prevent farm prices from falling during the Great Depression, the federal government paid farmers to plough under portions of their crops and slaughter some of their livestock. Potato farmers were paid to spray potatoes with dye, making them unfit for human consumption. Six million baby pigs were killed in 1933 alone.
    - Result: Less goods and services were available for consumption.

THE FALLACY OF DESTROYING GOODS TO CREATE JOBS

- **2009 Cash for Clunkers Program**
  - Under the Cash for Clunkers program, car dealers were paid to destroy those older cars traded in for new automobiles.
  - Proponents of this program argued that incentivizing people to buy new cars and destroying old cars would spark a recovery during the 2008-09 Great Recession.
  - **Result:** Consumers spent more on automobiles (both new and used with the rise in demand), making less was available for spending on other items.
  - All of this is **unsound economics**. You may be able to help specific producers by increasing the scarcity of their products, but this will not promote prosperity.

THE FALLACY OF DESTROYING GOODS TO CREATE JOBS

- While they are more subtle, government actions that increase the opportunity costs of obtaining various good and services are also destructive.
- When more resources are used to produce a good, fewer are available to produce other goods.
- The corn ethanol program provides an example.
  - Production of gasoline with ethanol is more expensive: Ethanol costs approximately $1.50 more than the energy equivalent of a gallon of gasoline.
  - When corn is used to produce the ethanol in gasoline, less is available for other purposes.
  - Result: The ethanol program reduced the supply of corn and other feed grains, causing their prices to soar.

DOES GOVERNMENT SPENDING "CREATE" JOBS?

- Government spending to create jobs requires either taxes or borrowing. But, this crowds out private sector spending and employment.

- The relevant issue is whether the jobs created by government spending add more to output than the displaced private sector jobs.

JOBS OF VALUE MATTER.

- It is not simply more jobs that improve our economic well-being, but jobs that produce goods and services people value and are willing to pay for.

- When this elementary fact is forgotten, people are often misled into acceptance of programs that reduce net wealth rather than create it.

CSE 1.12 ECONOMIC PROGRESS COMES PRIMARILY THROUGH VOLUNTARY TRADE, INVESTMENT, STABLE CAPITAL MARKETS, BETTER WAYS OF DOING THINGS, AND SOUND ECONOMIC INSTITUTIONS.

- Trade, investments in people and productive assets, technological advancements, and improvements in economic organization enhance our ability to produce goods and services and achieve higher living standards.

WHAT IS ECONOMIC PROGRESS?

- Americans produce and earn more than ***thirty times*** as much as they did in 1750.

- Why are Americans so much more productive today than they were 250 years ago?
  - Answer: Economic growth and expansion in the availability of goods and services provides the answer.

SOURCES OF ECONOMIC GROWTH

- Investments in productive assets and discovery and development of resources
  - Tools, machines, human capital, minerals
- Improvements in technology
  - Internal combustion engine, electricity, computers, by-pass surgeries, etc.
- Improvements in economic organization and institutions
  - Legal system, competitive markets, etc.

MODULE 4: QUESTIONS FOR THOUGHT

- How have the actions of high earners, such as Oprah Winfrey, Tom Hanks, Steve Jobs, LeBron James, and Bill Gates impacted the well-being of others? Have you and others been helped by any of them? Were you and others harmed by any of them?
- Describe how the smartphone has changed the way people live or work and businesses transact. Describe some of the primary and secondary effects, highlighting how this innovation, *on net,* has created jobs, generated wealth, and changed society for the better.