
LESSON ONE

LESSON ONE MARKETS AND THE MARKET SYSTEM

LESSON DESCRIPTION

This lesson introduces students to the primary economic institution in a market economy, markets. As described in the introductory essay to this volume, markets are an institution that emerges spontaneously from the interaction of self-interested buyers and sellers, establishing prices for goods and services that provide key incentives and signals. The first activity in this lesson stresses the decentralized nature of decision-making in competitive markets, and shows how self-interested behavior by individuals in these markets regularly leads to efficient outcomes. Next, the links between different types of markets are explored through a circular flow activity. Finally, the importance of prices that are free to rise or fall to achieve market equilibrium is demonstrated.

INTRODUCTION

Adam Smith, considered the father of modern economics, was one of the first to describe the systematic effects of everyday, self-interested behavior by ordinary men and women in organizing economic activity, establishing markets, and systematically answering three fundamental economic questions: what to produce, how to produce, and for whom to produce. Perfectly competitive markets require many “atomistic” buyers and sellers (too small to control prices or market output levels), the free flow of information, protection of property rights, negligible side effects on third parties (those not directly engaged in production or consumption), and enforcement of contracts. When those conditions are met, prices act as important signals in achieving efficient levels of production and consumption for goods and services, by automatically adjusting quantities

supplied and demanded whenever an imbalance (shortage or surplus) develops. Later lessons explore what happens when there are problems with property rights, third-party effects, and other problems that can make it impossible for markets to establish efficient levels of production and consumption.

CONCEPTS

- Product markets
- Factor markets
- Allocative efficiency
- Circular flow model
- Shortage
- Surplus
- Market prices
- Law of demand
- Law of supply

CONTENT STANDARDS

Markets exist when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services.

Prices send signals and provide incentives to buyers and sellers. When supply and demand changes, market prices adjust, affecting incentives.

A nation’s overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy.

BENCHMARKS

Market prices are determined through the buying and selling decisions made by buyers and sellers.

Relative price refers to the price of one good or service compared to the prices of other goods and services. Relative prices are the basic measures of the relative scarcity of products when prices are set by market forces (supply and demand).

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The market clearing or equilibrium price for a good or service is the one price at which quantity supplied equals quantity demanded.

An increase in the price of a good or service encourages people to look for substitutes, causing the quantity demanded to decrease, and vice versa. This relationship between price and quantity demanded, known as the law of demand, exists as long as other factors influencing demand do not change.

An increase in the price of a good or service enables producers to cover higher per-unit costs and earn profits, causing the quantity supplied to increase, and vice versa. This relationship between price and quantity supplied is normally true as long as other factors influencing costs of production and supply do not change.

Markets are interrelated; changes in the price of one good or service can lead to changes in prices of many other goods and services.

Scarce goods and services are allocated in a market economy through the influence of prices on production and consumption decisions.

When consumers make purchases, goods and services are transferred from businesses to households in exchange for money payments. That money is used in turn by businesses to pay for productive resources (natural, human, and capital) and to pay taxes.

OBJECTIVES

Students will:

- ◆ Explain that markets operate primarily through uncoordinated, decentralized decisions made by individual buyers and sellers.
- ◆ Distinguish between product markets and factor markets.
- ◆ Identify interactions between buyers and sellers across product and factor markets

and trace out both monetary and nonmonetary flows in the circular flow model.

- ◆ Explain the role of prices in providing incentives and signals in market economies, which are used to answer the basic economic questions: what, how, and for whom to produce.

TIME REQUIRED

Two class periods

MATERIALS

- Visual 1: The Magic of Markets
- Visual 2: What's for Lunch Tomorrow?
- Visual 3: In the Words of Adam Smith.....
- Visual 4: Circular Flow Diagram Without Government Sector, transparency plus one copy per student OR
- Visual 5: Circular Flow Diagram With Government Sector, transparency plus one copy per student
- Visual 6: Discovering the Market Clearing Price
- Activity 1: Menu cards, cut apart to provide one per student
- Activity 2: Circular Flow Descriptions, one copy per student
- Activity 3: Circular Flow Examples, one copy cut into strips
- Activity 4: Buyer Cards, one copy cut apart, and Seller Cards, one copy cut apart

PROCEDURES

1. Explain that a **market** is any kind of arrangement that allows the potential buyers and sellers of a particular good or service to interact. Avoid using the word “place” or implying a location in discussing markets. Although it is true that many markets involve direct face-to-face interaction between buyers and sellers, that is not an essential element of the exchange. Indeed, technology has dramatically altered the manner in which many buyers and sellers complete their transactions.

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2. Explain that consumer goods and services – things consumers buy because the goods or services provide them with satisfaction – are exchanged in markets called **product markets**. Markets for inputs used in the production process are called **factor markets**. These markets are where the factors of production (natural resources, labor, capital, and entrepreneurship) are bought and sold.

3. Explain that students and most other people who have grown up in countries like the United States tend to take markets for granted, yet markets accomplish remarkable results every day. Without any centralized coordination or control of individual decisions about what, how, and for whom to produce, markets work to insure the availability of the many types and qualities of goods and services that consumers want by providing incentives for producers to make and offer to sell their goods and services day after day, year after year, in the marketplace.

4. Display Visual 1, The Magic of Markets, and lead a discussion using these questions:

- What did you have for breakfast this morning? (*Answers will vary*)
- How did this type of food arrive in your house? (*Answers will vary*)
- How did someone in the family know what and how much to buy for breakfast? (*Past experience with tastes and eating habits of family members*)
- How did the store it was purchased from know someone would buy it? (*Past experience and habits of store customers*)
- How does the local fast food restaurant know how many workers to schedule for each shift during the week? (*Again, from past experience or, for a new store, from what they observe from established stores in similar areas, or from competitors who are already operating in this area*)

- What would happen if a change in consumer preferences and buying patterns significantly reduced the demand for a good or service? (*At first producers might try to avoid cutting their production or prices, but in time prices would fall and, eventually, producers would reduce the amount of the product offered. Example: After September 11, 2001, the decrease in demand for air travel led to massive schedule reductions for major airlines.*)
- What would happen if higher production costs significantly reduced the supply of a good or service? (*At first, producers may try to absorb the higher costs and not raise prices—particularly if it is also costly for them to implement higher prices, for example in an expensive restaurant that would have to reprint an extensive menu. If the higher production costs persist, however, producers will ultimately reduce the amounts they are willing and able to sell at a given price. That will lead to a price increase, causing consumers to reduce the amount of the good or service demanded. Example: Higher oil and gasoline prices will reduce highway travel for vacations and the demand for cars that are less fuel efficient, such as SUVs.*)
- For most goods and services, is a central authority needed to decide what, how, and for whom to buy and sell in competitive markets? (*No – the results come from thousands of decentralized or individual decisions of consumers and producers*)

5. Display Visual 2, What's for Lunch Tomorrow? showing four menu options. Ask each student to rank his or her menu preferences by showing their first, second, third, and fourth choices. (For this activity, no ties are allowed.) Tell students to write down these rankings to record their choices.

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6. Randomly distribute one menu card from Activity 1 to each student. Ask all of the students to stand up, then have only the students who received a card with their top menu choice sit down.

7. To begin Part 2 of the activity, tell the students who are still standing to attempt to trade menu cards **ONLY** with other students who are still standing. Students should trade cards **ONLY** if a trade improves the satisfaction of **BOTH** students, by moving them higher up on their menu rankings. Allow at least five minutes for students to trade. Then ask for a show of hands to see how many of these students were able to improve their satisfaction by moving up on their ranking of menu items by trading. Then have all of the students who now hold their first menu choice sit down.

8. Lead a discussion of the activity, beginning with the following two questions:

- Is it likely that a random distribution of menu items, such as demonstrated at the beginning of Part 1, will fully satisfy all consumers? (*No – there is no mechanism for revealing tastes, preferences, dietary restrictions, etc., and no method for allowing people to make individual choices.*)
- Did the trading in Part 2 of the Activity increase total satisfaction of the consumers? (*Yes, assuming some trading did occur, because the traders were better off and the students who did not trade stayed at the same level of satisfaction. No, if no trades were completed.*)

9. Introduce the concept of **allocative efficiency**. One way to describe allocative efficiency (assuming that all individuals' preferences are accepted and counted) is to say that resources are allocated efficiently when it is NOT possible to benefit one person without making someone else worse off. Then continue the discussion of Activity 1 with the following questions:

- Was the initial distribution of menu items allocatively efficient? (*Not if, as most likely, there were trades during Part 2. The trades indicate that it was possible to benefit some students without harming others. If there were no trades during Part 2, the initial allocation was efficient.*)
- After the trading round was complete, was the new distribution of menu items allocatively efficient? (*Yes. After all of the possible trades had been made, it was impossible to improve the satisfaction of any student without harming someone else.*)
- Does allocative efficiency guarantee that everyone has maximum satisfaction? (*No, it is possible for some students to be “stuck” with their 2nd, 3rd, or even 4th menu choice.*)
- How do markets contribute to allocative efficiency? (*Resources are directed toward their best uses because consumers are willing to pay for the things they like, and producers are willing to pay for inputs that help them produce goods and services profitably – in other words as long as they can produce goods and services for less than what consumers are willing to pay for them.*)

10. Display Visual 3, In the Words of Adam Smith. Allow students five minutes to read and consider this famous passage from *The Wealth of Nations* individually. Then put students in small groups (3–4 students) to discuss the quote and have them paraphrase the main ideas in modern terms. Ask a student from each group to report. Stress the importance of “self-love” (self-interest) in the quote. Emphasize that Smith was a strong proponent of “natural liberty,” a system in which individuals are left alone (“laissez faire”) to pursue and advance their own interests, but in competition with others doing the same thing. Smith staunchly believed that self-interest is the main and most reliable engine of economic growth and

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progress. That implies that market systems will be efficient because, in market transactions, if I want something from you, I must provide something you want in exchange. In Activity 1 and in the routine exchanges that students see at all kinds of stores, both buyers and sellers gain by agreeing to trade even in making routine and repeated trades. Smith also advocated a limited role for government, as noted in the following passage from *The Wealth of Nations*:

“The uniform, constant, and uninterrupted effort of every man to better his condition, the principle from which public and national, as well as private opulence is originally derived, is frequently powerful enough to maintain the natural progress of things toward improvement, in spite both of the extravagance of government, and of the greatest errors of administration.” Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, (Book II, Chapter II, passage 31).

11. Explain that the **circular flow model** is a diagram that demonstrates the systematic linkages between markets for goods and services (product markets), and markets for resources used in production (input or factor markets). Stress that although many people before Adam Smith had written about the efficiency of individual markets and the key role of self-interest, Smith was one of the first to show how a wide range of markets for different kinds of goods and services, each seemingly independent, were actually linked together in a market *system*, and that a system of competitive markets would be very efficient because all of the individual buyers and sellers in those markets knew what they wanted, and used the resources they controlled very carefully, to achieve their own goals.

12. Display either Visual 4 or 5. If class time is limited or student backgrounds and abilities in economics are low, use the two-sector circular flow model, showing households and businesses, in Visual 4. If time and student

background and ability permit, use Visual 5, which is a three-sector model including government. Explain that this Visual and activity will show the basic economic connections and flows among households, businesses, and (optional) government in both product and factor markets. Ask students to identify examples of households (their own, neighbors', friends', relatives', their teacher's), businesses (fast food restaurants, grocery stores, etc), and (optional) government (federal, state, and local agencies). Review the difference between product and factor markets.

Referring to Visual 4 or 5, note that the arrows with odd numbers will represent real or non-monetary flows of goods, services, and inputs or productive resources. The complete non-monetary circular flow of the economy will be shown with arrows 1, 3, 5, and 7. On the other hand, the even-numbered arrows will represent monetary flows. A complete monetary flow of the economy will be shown by arrows 2, 4, 6, and 8. (In economics classes, you may also want to point out that in any given year the monetary flow measures the dollar value of the real flow in the overall economy, so the circular flow model also demonstrates how the prices for goods, services, and factors of production that are studied in microeconomics can be used to measure the overall level of economic activity that is studied in macroeconomics.)

13. Distribute one copy of Activity 2, Circular Flow Descriptions, and one copy of either Visual 4 or 5 to each student. Review each numbered item on the handout and assign each one to an arrow on the Circular Flow Diagram. If Visual 4 is used, copy and use only the top portion of Activity 2 (numbers 1-8). If Visual 5 (3 sectors, including government) is used, use items 1-16.

14. Cut apart Activity 3, Circular Flow Examples, to form individual slips. Fold the slips in half and place all of the slips in a container. Have students take turns drawing a slip, reading it aloud, and determining the

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correct arrow reference number. When a student provides an incorrect answer, encourage classmates to offer corrections. Be careful to use the starred (*) slips only when working with the circular flow model that includes the government sector (Visual 5).

Answers:

- *Olivia chooses a beautiful sweater for her grandmother's Christmas present (1)*
- *Henry paints houses as a summer job (3)*
- *Jorge receives income from rental properties (4)*
- *David pays for tickets to a rock concert (2)*
- *General Motors produces SUVs for sale to consumers (7)*
- *The Green Bay Packers receive money from season ticket sales (8)*
- *Exsalonce Beauty Parlor hires another hairdresser (5)*
- *Abs-of-Steel Fitness Center pays its personal trainers each Friday (6)*
- ** Sona Corporation pays \$5,000 in income taxes to the state of Wisconsin (12)*
- ** Irene receives \$400 each month from the government because she has low income (14)*
- ** A Pentagon worker receives \$60,000 per year for her work as a translator (14)*
- ** A recent police academy grad applies for a job with the municipal police department (13)*
- ** A homeowner's city government provides curbside garbage pickup (15)*
- ** 3Squares Company produces MREs (meals-ready-to-eat) for U.S. army troops (9)*

15. When students have demonstrated an understanding of linkages between different kinds of markets shown in the circular flow,

extend the discussion to include the role of prices. Prices send signals and provide incentives to buyers and sellers. Scarce goods and services are allocated in a market economy through the influence of prices on production and consumption decisions.

Specifically, an increase in the price of a good or service encourages people to look for substitutes, causing the quantity demanded to decrease, and vice versa. This relationship between price and quantity demanded, known as the **law of demand**, normally holds as long as other factors influencing demand do not change.

An increase in the price of a good or service allows producers to cover higher per-unit costs of production to earn profits, causing the quantity supplied to increase, and vice versa. This relationship between price and quantity supplied, called the **law of supply**, normally holds as long as other factors influencing costs of production and supply do not change.

Market prices are determined through the decisions made by buyers and sellers. The market clearing or equilibrium price for a good or service is the one at which quantity demanded equals quantity supplied. If a price does not clear the market, either a **shortage** (quantity demanded exceeds quantity supplied) or **surplus** (quantity supplied exceeds quantity demanded) will occur. Shortages trigger upward pressure on price, as disappointed demanders make it known that they would be willing to pay more than the current price. Surpluses trigger downward pressure on price, as disappointed suppliers learn that consumers will buy more only if they offer their goods and services at a lower price.

16. Tell students that Activity 4 will demonstrate the important role of prices in clearing the market, using eight sellers and eight buyers. The buyers and sellers will act in their own self-interest, with buyers attempting to buy a good at the lowest possible price, and sellers attempting to sell the good at the highest

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possible price. Tell students that the game is played in several rounds, with a price announced by the teacher at the beginning of each round.

In each round, buyers should seek a seller willing to trade at that price. Likewise, sellers seek a willing buyer at the announced price. An “exchange” pairing between buyer and seller occurs when trade at the announced price is mutually agreeable to both. The prices on the cards are NOT required to be equal for an exchange pairing to occur.

17. Explain that at some prices, some buyers and sellers are unwilling to trade at all. For example, if the announced price is \$2, a seller holding a card stating “you are willing to sell the good if the price is \$12 or more” is not willing to trade during this round. Similarly, if the announced price is \$14, a buyer holding a card stating “you are willing to buy the good if the price is \$8 or less” is not willing to trade. Because identifying who might be “unwilling” to trade in a given round can be confusing to students, the teacher should demonstrate (using prices of \$14 and \$2) with a few buyer and seller cards distributed to students before the actual simulation begins.

18. Tell students that after they create their initial buyer/seller exchange pairings, there will be time for “bumping”. Any unpaired buyers or sellers can “bump” a buyer or seller already in an exchange pairing under the following circumstances. An unpaired buyer can bump an already paired buyer IF he/she is willing to pay the seller a higher price than the paired buyer. Likewise, an unpaired seller can bump an already paired seller IF he/she is willing to offer the good at a lower price than the paired seller. Students who are unpaired should check all the exchange pairs to see if they can bump. Tell students they should try to bump other buyers and sellers until all possible bumps have been exhausted. For most of the prices announced, however, there will be a “mismatch” between

willing buyers and willing sellers, even after bumping is exhausted.

19. Select 16 students and distribute one buyer or seller card to each. Each student will use the same card throughout all rounds of the game. (Note: the game is easier to monitor if buyer and seller cards are printed on different colors of paper.) Explain that the game involves 8 buyers, 8 sellers, and seven rounds, with prices announced at the beginning of each round by the teacher. When each round is complete, the 16 students will each fit into one of three categories: 1) unwilling buyer/seller; 2) exchange pair buyer/seller; or 3) willing but unpaired buyer/seller. Instruct students who are unwilling buyers or sellers (due to the price announced during a particular round) to stand off to the side or sit down during that round. The remaining willing buyers and sellers should attempt to form exchange pairs during the round.

20. Begin by announcing that in round 1 the price will be \$3. Help buyers and sellers determine whether they are willing or unwilling buyers/sellers at that price. Remind unwilling buyers/sellers to move to the side of the trading area or sit down. Allow enough time for initial exchange pairings, then allow time for “bumping”. There should be only one exchange pair because there is only one willing seller at a price of \$3. Lead the class in counting the numbers in each group: (unwilling sellers: 7; unwilling buyers: 1; exchange pairs: 1 buyer/seller pair; willing but unpaired sellers: 0; willing but unpaired buyers: 6). Display Visual 6 and record these results for the \$3 price round. Record additional results as each remaining price round is completed, but first conclude the debriefing for the price of \$3.

21. Ask students to identify whether there is a shortage or surplus in the market at this price. (*There is a shortage: more willing buyers than willing sellers.*) What do the unwilling sellers have in common? (*Each is willing to sell only at prices higher than the announced price.*)

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Explain that this will happen if the current market price is too low relative to a producer's costs for it to produce and sell its product at a profit. What do the willing but unsuccessful buyers have in common? (*Each is willing to buy at a price higher than the current market price.*) Given these conditions, ask students to predict what will happen to price. (*There will be upward pressure on price from the six disappointed, "wannabe" consumers.*)

22. Continue the activity with price rounds of \$5 and \$7, counting the numbers of willing and unwilling buyers and sellers, and exchange pairs at that price. Record these data for each price round on Visual 6. Discuss whether a shortage or surplus exists, and ask students to predict the direction of price, given the conditions of that round. Be sure to discuss the results of each round before moving on to the next price round. (The shortage condition continues, but becomes smaller as the price rises.)

23. Complete additional rounds in the following order: \$15, \$13, \$11, and finally \$9. The final round demonstrates the equilibrium or market clearing price. At the earlier prices (\$11–\$15) there will be a surplus, with the quantity demanded less than the quantity supplied. The market clearing price is the only price at which the quantity demanded equals the quantity supplied. In other words, there are no willing buyers left unsatisfied and no willing sellers holding produced goods. A price of \$9 clears the market of both buyers and sellers, and is the only price at which there are neither willing buyers nor willing sellers who are unable to form an exchange pair. Note that at prices below equilibrium, there are only willing but disappointed buyers. At prices above equilibrium, there are only willing but disappointed sellers. These conditions influence the movement of prices in unregulated markets, with prices rising when there are unsatisfied buyers willing to buy the goods, and falling when there are unsatisfied sellers willing to sell

their surplus goods, but no available buyers at the current price.

24. The table below summarizes the results at all prices:

Price	Unwilling Buyers	Unwilling Sellers	Exchange Pairs	Willing Unpaired Buyers	Willing Unpaired Sellers
\$3	1	7	1	6	0
5	2	6	2	4	0
7	3	5	3	2	0
15	7	1	1	0	6
13	6	2	2	0	4
11	5	3	3	0	2
9	4	4	4	0	0

25. Ask students to explain how the results of the simulation reinforce the ideas of Adam Smith. (Buyers and sellers act in their own self-interest, exchanges occur when there are mutual benefits, and prices are key signals for both buyers and sellers.) Emphasize that in the competitive markets described by Smith, equilibrium price is achieved through powerful market forces, without any government intervention or central planning.

CLOSURE

1. Review the important points of this lesson by discussing the following questions:
 - What is a market? (*The interaction of self-interested buyers and sellers, with prices acting as incentives and signals to both groups.*)
 - How are the basic economic questions (what, how, and for whom to produce) answered in a market economy? (*Consumers signal what they are willing and able to pay for goods and services, and producers who are able to make a profit at those prices determine the most efficient way to produce products, competing against other producers.*)
 - How are households, businesses, and government linked together in a market economy? (*The circular flow model shows the connections in terms of both monetary flows and "real" flows of goods and services from these sectors to*

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and from the product market, where goods and services are produced, and to and from the factor market, where productive resources or inputs are bought and sold.)

- What is the role of prices in a market economy? (*Prices act as important signals of how scarce a good or service is. That affects the behavior of both buyers and sellers, with buyers wanting to consume more at low prices, and sellers willing to produce and sell more at high prices. In competitive markets adjustments occur automatically, with prices falling to eliminate surpluses and rising to eliminate shortages.*)

ASSESSMENT

(Correct answers are in **bold**)

1. Markets determine what, how, and for whom to produce primarily through:
 - a. laws passed by the legislature.
 - b. centralized committee decisions.
 - c. elected officials.
 - d. interactions of buyers and sellers.**
2. Which of the following represents a factor market interaction?
 - a. A young mother buys health club membership.
 - b. A real estate agent sells a home in your neighborhood.
 - c. A local farmer hires students for crop harvesting.**
 - d. A high school senior buys a class ring.
3. Which of the following represents a product market interaction?
 - a. A bride-to-be purchases postage stamps for wedding invitations.**
 - b. A college student works in a computer lab.
 - c. A local restaurant hires more waitstaff.
 - d. A post office employs more staff in the mail sorting room during holidays.

4. If quantity demanded = 15 and quantity supplied = 8 when the price is \$10, in this market there is currently:

- a. an equilibrium.
- b. a market clearing.
- c. a shortage.**
- d. a surplus.

5. When a surplus of a good or service exists at a given price, we expect price to

- a. fall.**
- b. rise.
- c. remain the same.
- d. We cannot tell what price might do.

EXTENSION ACTIVITIES

1. For higher ability students, use the supply and demand cards from Activity 4 as the basis for a graphing assignment: Construct the demand and supply curves, showing price on the vertical axis and quantity demanded/supplied on the horizontal. Verify that equilibrium occurs at a price of \$9.

2. Reinforce student understanding of market forces with other National Council on Economic Education lessons. See www.e-connections.org/lesson7/Tlesson7.html for “Demand Shifters” activity, or www.e-connections.org/lesson11 for lesson entitled, “Lowell Workers and Producers Respond to Incentives.”

Visual 1

The Magic of Markets

What did you have for breakfast this morning?

How did this type of food arrive in your house?

How did someone in the family know what and how much to buy for breakfast?

How did the store it was purchased from know that someone would buy it?

How does the local fast food restaurant know how many workers to schedule for each shift during the week?

What would happen if a change in consumer preferences and buying patterns significantly reduced the demand for a good or service?

What would happen if higher production costs significantly reduced the supply of a good or service?

Is a central authority needed to decide what, how, and for whom to buy and sell in competitive markets?

Visual 2

What's for Lunch Tomorrow?

Menu 1: Veggie pizza

Menu 2: Cheeseburger

Menu 3: Chef salad

Menu 4: Chicken nuggets

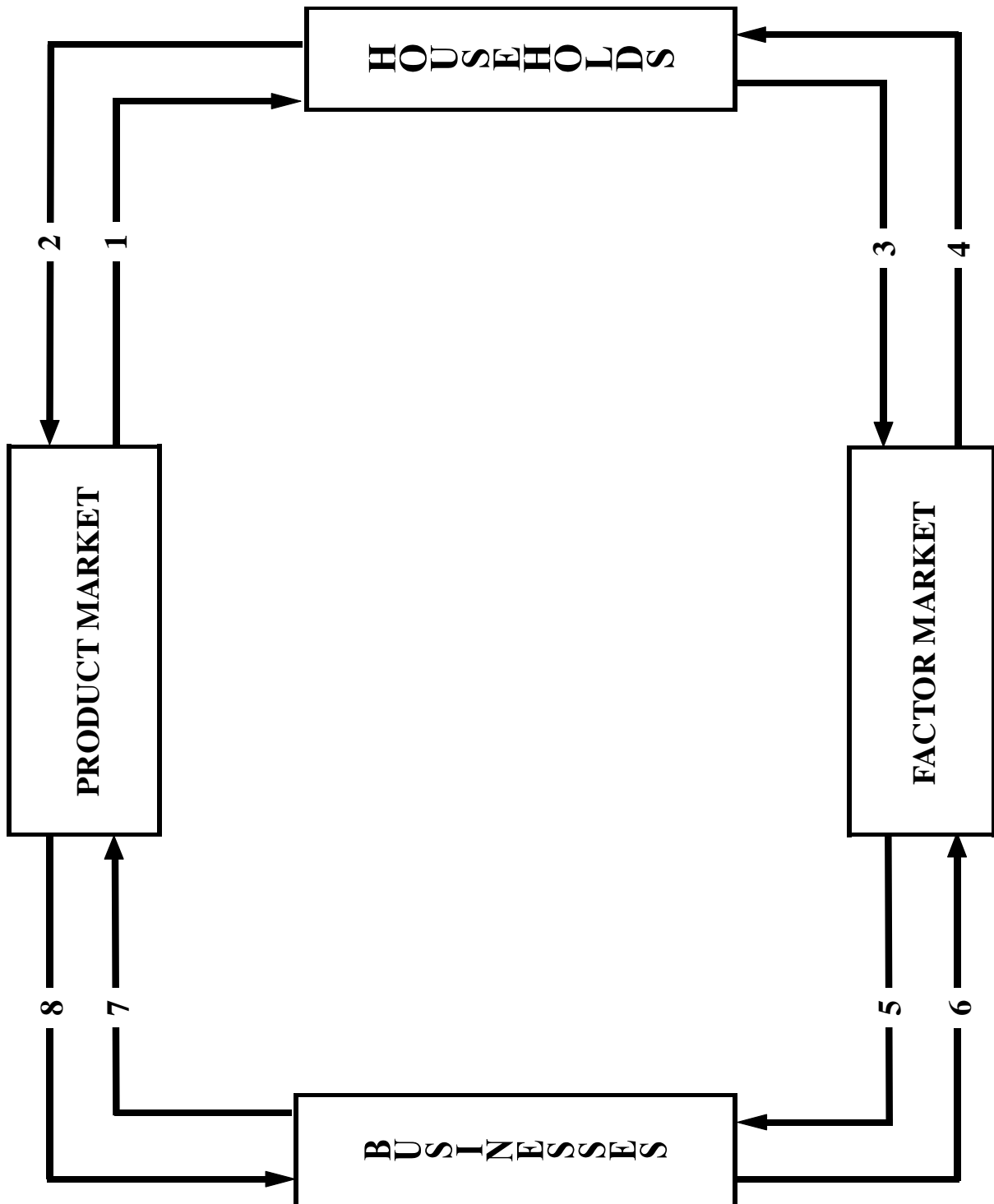
Visual 3

In the Words of Adam Smith...

“But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour, and show them that it is for their own advantage to do for him what he requires of them. Whoever offers to another a bargain of any kind, proposes to do this. Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity, but to their self-love, and never talk to them of our own necessities but of their advantages.”

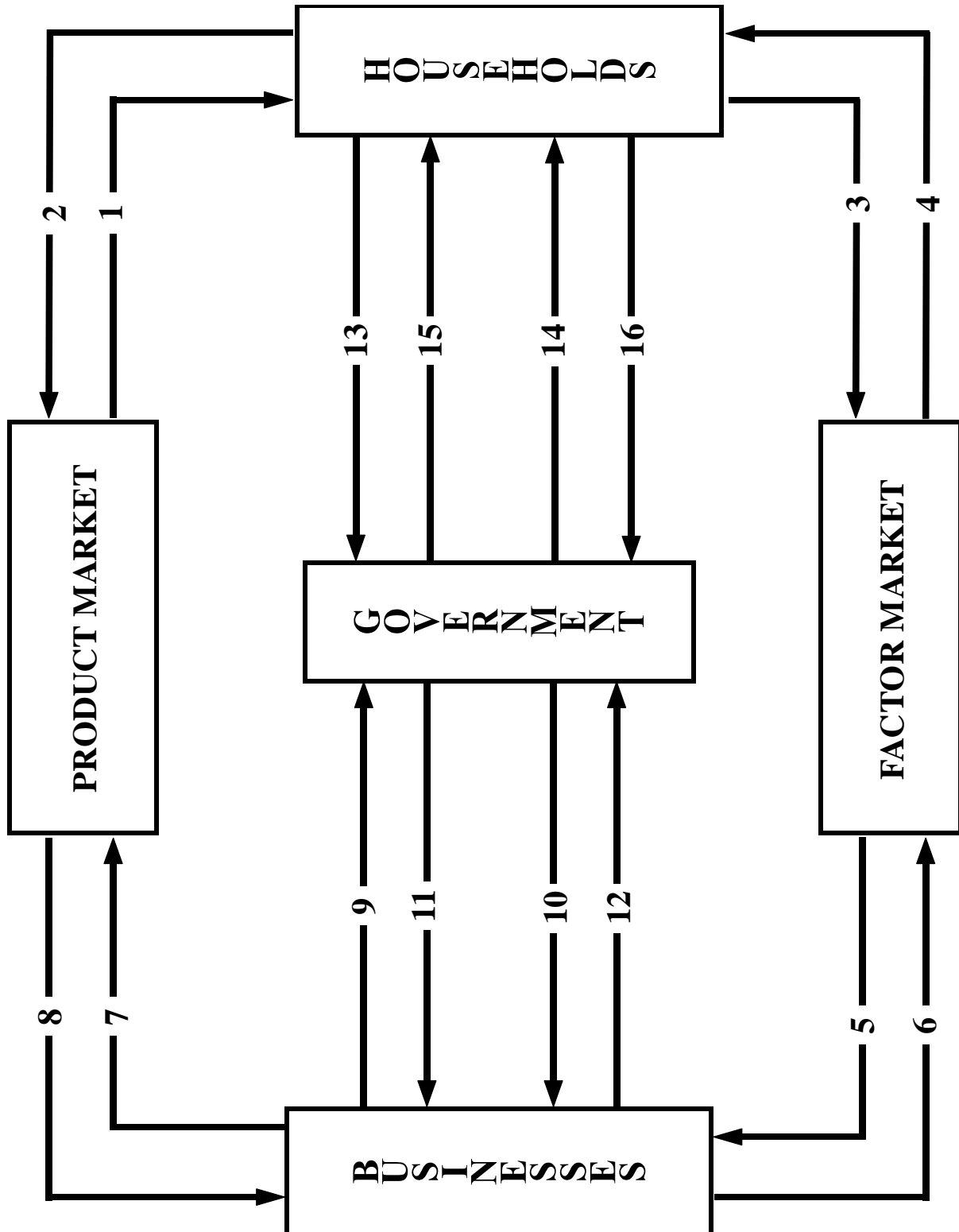
Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, (Book I, Chapter II, passage 2)

Visual 4 Circular Flow Diagram (Without Government Sector)



Visual 5

Circular Flow Diagram (With Government Sector)



Visual 6

Discovering the Market Clearing Price

Round	Price	Unwilling Buyers	Unwilling Sellers	Exchange Pairs	Willing Unpaired Buyers	Willing Unpaired Sellers
1	\$3	_____	_____	_____	_____	_____
2	\$5	_____	_____	_____	_____	_____
3	\$7	_____	_____	_____	_____	_____
4	\$15	_____	_____	_____	_____	_____
5	\$13	_____	_____	_____	_____	_____
6	\$11	_____	_____	_____	_____	_____
7	\$9	_____	_____	_____	_____	_____

Activity 1

Menu Cards

VEGGIE PIZZA	VEGGIE PIZZA	VEGGIE PIZZA
VEGGIE PIZZA	CHEESEBURGER	CHEESEBURGER
CHEESEBURGER	CHEESEBURGER	CHEESEBURGER
CHEF SALAD	CHEF SALAD	CHEF SALAD
CHEF SALAD	CHEF SALAD	CHICKEN NUGGETS
CHICKEN NUGGETS	CHICKEN NUGGETS	CHICKEN NUGGETS

Activity 2

Circular Flow Descriptions

1. Households receive and consume goods and services produced by businesses. Example: Jo buys CDs, haircut, pizza.
2. Households pay for the goods and services they purchase. Example: cash payment for cheeseburger, check written for college tuition.
3. Households offer labor and other factors to businesses in the factor market. Example: labor provided in factory, land provided to grow crops.
4. Households earn income as payment for labor and other factors used by business. Example: wages from job.
5. Businesses hire labor and other factors to produce goods and services. Example: summer jobs for college students.
6. Businesses pay the owners of the factors used in production. Example: payroll check issued to worker, or interest paid on a loan to build a new factory.
7. Businesses produce goods and services to sell in the product market. Example: Dell makes computers for consumers.
8. Businesses receive revenues from the sales of their goods and services. Example: restaurant tallies its receipts for meals served.

The following flows are used if the government sector is added to the model (Visual 5):

9. Businesses produce goods and service for purchase by government. Example: Boeing makes airplanes for the federal government.
10. Government pays businesses for goods and services purchased. Example: Department of Defense pays for paper bought from Office Max.
11. Government provides goods and services for business use. Example: roads and police protection.
12. Businesses pay taxes to federal, state, or local government. Example: property tax paid by an insurance company.
13. Households provide labor services to government. Example: switchboard operator at The White House.
14. Government pays its employees and military or makes transfer payments to low-income families. Example: paycheck to civil service worker, Social Security benefits paid to senior citizens.
15. Government provides goods and services that benefit households. Example: education, parks, justice system.
16. Households make tax payments to government. Example: income, sales, and property taxes.

Activity 3

Examples

Olivia chooses a beautiful sweater for her grandmother's Christmas present.

Henry paints houses as a summer job.

Jorge receives income from rental properties.

David pays for tickets to a rock concert.

General Motors produces SUVs for sale to consumers.

The Green Bay Packers receive money from season ticket sales.

Exsalonce Beauty Parlor hires another hairdresser.

Abs-of-Steel Fitness Center pays its personal trainers each Friday.

* Sona Corporation pays \$5,000 in income taxes to the state of Wisconsin.

* Irene receives \$400 each month from the government because she has low income.

* A Pentagon worker receives \$60,000 per year for her work as a translator.

* A recent police academy grad applies for a job with the municipal police department.

* A homeowner's city government provides curbside garbage pickup.

* 3Squares Co. produces MREs (meals-ready-to-eat) for U.S. army troops.

Note: use the items marked with the * only if you are using Visual 5, which includes the government sector.

Activity 4

Buyer Cards – (duplicate on white paper)

YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 16 OR LESS	YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 14 OR LESS
YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 12 OR LESS	YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 10 OR LESS
YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 8 OR LESS	YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 6 OR LESS
YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 4 OR LESS	YOU ARE WILLING TO BUY THE GOOD IF THE PRICE IS \$ 2 OR LESS

Activity 4 (continued)

Seller Cards – (duplicate on colored paper)

YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 2 OR MORE	YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 4 OR MORE
YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 6 OR MORE	YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 8 OR MORE
YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 10 OR MORE	YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 12 OR MORE
YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$ 14 OR MORE	YOU ARE WILLING TO SELL THE GOOD IF THE PRICE IS \$16 OR MORE