



Teacher-to-Teacher

Video Series
for Secondary Educators

TITLE: Saving, Investing, and the Invisible Hand

PRIMARY SUBJECT AREAS: High School Economics

GRADE LEVELS: 9 -12

OVERVIEW: This lesson explains how financial institutions in a market economy channel savings into economic investments. How much people save and how effectively those savings are transformed into good investments are directly related to a nation's economic growth. Historically, economic growth has been the primary way market systems reduce poverty and raise standards of living. Economic growth results from several factors, including technological change that stems from research and development on the one hand, and investments in new capital goods that embody those new technologies on the other hand. Economic growth also depends on how successfully individuals and nations invest in education, training, and other forms of human capital, which also requires saving and a reduction in current consumption levels. Most savings and investment decisions in market systems are made by individuals and businesses.

APPROXIMATE DURATION: one 50-minute class period

LOUISIANA CONTENT STANDARDS:

<http://www.doe.state.la.us/DOE/asps/home.asp?I=CONTENT>

Students develop an understanding of fundamental economic concepts as they apply to the interdependence and decision making of individuals, households, businesses, and governments in the United States and the world.

Economics

- E-1A-H7 analyzing the roles of money and banking in an economic system
- E-1A-H5 explaining the basic features of market structures and exchanges

Free Enterprise

- GLE 14 Explain the advantages and disadvantages of given market structures (E-1A-H5)
- GLE 22 Analyze the role of banks in economic systems (e.g., increasing the money supply by making loans) (E-1A-H7)

TECHNOLOGY STRATEGIES:

<http://www.doe.state.la.us/DOE/LCET/curric/cats.asp>

INTERDISCIPLINARY CONNECTIONS:

N/A

OBJECTIVES:

1. The student will recognize that saving means not consuming all current income, and investment refers to the production and purchase of machines, building, and equipment that can be used to produce more goods and services in the future.
2. The student will explain that personal investments in stocks, bonds, and other financial securities may or may not fund additional real investments in capital goods, depending on whether those personal investments involve the purchase of new issues of stocks and bonds, or purchases previously issued securities in the secondary markets, (such as the New York or American Stock Exchanges, or NASDAQ – the National Association of Securities Dealers Automated Quotations System).
3. The student will identify institutional arrangements that connect saving and investment including banks, the bond market, and new issues of stock sold through the investment banking process.
4. The student will analyze the economic incentives that encourage saving and investing.
5. The student will recognize that self-interested decisions about saving and investment can also have important social benefits.

MATERIALS:

Watts, Michael. Focus: High School Economics, National Council on Economic Education, 2001.

Activities 1 and 2

Visuals 1, 2, 3, 4, and 5

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Learning from the Market Integrating the Stock Market Game(tm) across the Curriculum, National Council on Economic Education, 2000.

Visual 1, The Market for Stocks

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TECHNOLOGY CONNECTIONS:

Web Sites: www.smgww.org

BACKGROUND INFORMATION:

Students do not have to have any prior knowledge.

LESSON PROCEDURES:

The purpose of this lesson is to explain how the financial institutions of a market economy help channel savings to economic investment. This is a key linkage that affects a nation's rate of economic growth. Historically, economic growth has been the primary way market systems reduce poverty and raise standards of living. Economic growth results from several factors including research and development and technological change. It also depends on the levels of saving and investment in physical and human capital, which determine how widely and rapidly new technologies will be used in the economy.

1. Explain that when people save, they do not consume all of their current income. Instead, they set some of it aside. **What are some reasons that some people save?** *Because they wish to purchase something expensive in the future, such as a car, house, vacation, or college education. They want protection against unforeseen events, such as health problems or being laid off. They save for their retirement years.*
2. When people save, they are usually trying to make themselves better off in the future. **But can this saving help others as well? How?** *One person's savings can be loaned to someone else who wants to buy a car or house.*
3. In economic, a distinction is made between the terms "saving" and "investment."

Display Visual 1

Explain:

When individuals make personal investment decisions by purchasing stocks and bonds – that decision may or may not provide additional funds for real investments in capital goods, such as factories and machines. Whether the decision results in direct real investment depends on the kind of personal investment, and where and how people buy the securities.

4. People commonly do not understand that the stocks and bonds traded on markets like the New York Stock Exchange are actually secondary (in effect, used or second-hand) securities. Explain that a distinction is made between new issues of stock made through investment banks and the reselling of these shares in the stock markets. Similarly people can buy new issues of bonds from corporations or brokers who are selling those bonds for the corporations, or they may buy a bond that is being sold by an individual, bank, or other firm that purchased the bond earlier, and has now decided to resell it in the bond market. The key point to understand here is that new issues of stocks and bonds generate additional investment funds for the business that issues them (or for

the government, if it issues new bonds). But stocks and bonds that are resold in secondary markets do not provide additional funds to the company or organization whose stocks and bonds are traded. Rather, the seller of the stocks and bonds receives the funds paid by the buyer of the securities.

Display **Visual 2**

5. New corporations that want to raise money to begin operations, and sometimes existing corporations that want to expand, offer new issues of stock to investment bankers in the **primary market**. These companies use the primary market to raise financial capital. Investment banks purchase these new securities and then sell these shares to the public at a somewhat higher price than the banks paid the issuing companies – if the investment banks earn a profit. From that point, on the securities will be traded in the **secondary markets**. The investment banking process saves time and reduces risks for the corporations that issue new shares of stock, and provides an orderly way to bring the shares to the market.

Display **Market for Stocks** chart.

Distribute **Activity 1**.

6. Allow time for students to respond in writing. Then review.
 - A. (I)
 - B. (P)
 - C. (N: consumption)
 - D. (I)
 - E. (s)
 - F. (I for Ford, P for Granny Sara)
 - G. (I)
 - H. (P)
7. Explain that market economies have developed several different institutional arrangements that channel savings to investment.

Display **Visual 3**. Discuss the following:

- A. In the stock market, buyers of stocks are purchasing shares of ownership in a corporation, hoping that their share of the corporation's future profits will make the stocks a good personal investment. People who buy shares of stock hope that the share price will increase, resulting in a financial gain. Many companies also pay out part of their profits to stockholders each year or quarter, as dividend. Corporations issue new shares of stock when they are formed, in order to raise funds to start the business. Some companies also issue new shares of stock when they want to expand the business by constructing new plants or purchasing new equipment. However, most routine sales of stock, such as those made on the New

York Stock Exchange or NASDAQ, do *not* generate funds for the companies whose stocks are traded there. Instead, these are secondary markets where existing share so stock are bought and sold. New issues of stock are sold through investment bankers.

- B. In the bond market, those who buy new issues of bonds loan their savings to businesses in exchange for a promise that the amount loaned will be repaid, with interest, by a specified date. Many corporations issue bonds to raise funds when they expand by constructing new plants or purchasing new equipment. Federal, state, and local governments also issue bonds to finance various projects, such as building new schools, jails, or bridges.
- C. Banks accept and compete for deposits from savers. Savers expect their deposits to earn interest. Banks use these deposits to make loans to other people and businesses that wish to borrow. The borrowers agree to repay the loans, with interest, at a specified time. Banks pay a lower rate of interest to savers than they charge to borrowers. The difference between the interest paid to savers on deposits and the interest charged on loans to borrowers is one source of income that banks use to pay their costs of operating and (they hope) to earn a profit.

Display **Visual 4**. Review:

Business owners borrow savings from households, using banks or other saving and lending institutions as financial intermediaries. Businesses also provide savings to the market for loanable funds and consumers and governments compete with businesses to borrow the available savings. In the past 75 years only households have been net savers in the U.S. economy. Both business and government have been net borrowers – and businesses actually borrow much more than government. In some years, the government has run a surplus; and in 2001 it was projected to run a surplus over the next decade or more.

8. Distribute **Activity 2**. After students read, ask:

- i. Who makes most decisions about how much to save and invest in a market economy, and about how to save and invest? (*businesses and households*)
- ii. Why are banks and financial markets important to economic growth? (*Banks and other financial intermediaries lend money to help people start and expand business. Financial markets such as bond markets and stock markets also play a critical role in channeling personal savings to business that use these funds to make investments.*)
- iii. Why are individuals in households and business more likely to make saving and investment decisions that advance their own economic interests more effectively than decisions made by government officials? (*A key assumption of a market economy is that individuals in households and business have better information about their own circumstances and objectives than*

government officials. They also have the strongest incentives to make good investment decision, because they make money from good investments, and lose money with bad investments. However, some kinds of investment decisions relate to public rather than private goods and therefore must be made by government officials.)

9. Market economies allow individuals to act in their own self-interest in making most economic decisions.
 - i. When savers in households decide to use some of their savings to buy stocks, how are they acting in their own self-interest? *(They hope to gain financially from such decisions, that the value of the stocks they purchase will increase, and that the total return from higher stock prices and any dividends paid on the stock will be more than they could earn in a savings account.)*
 - ii. When business owners decide to borrow money or issue shares of stock, how are they acting in their self-interest? *(They hope that their increased production will lead to increased revenues and profits)*

10. Display **Visual 5**, after students read, ask:

How does Adam Smith's invisible hand apply to the decisions made by people who borrow and save using financial institutions? (While pursuing their own financial self-interest, savers and investors are also making decision that help a market economy grow, provide new jobs and income for workers, and expand the number and types of goods and services produced to sell to consumers.)

Closure

Pose questions for review:

1. What do economists mean by the term saving?
2. What do economists mean by the term investment?
3. What is the difference between primary and secondary markets for financial securities?
4. What is a bond?
5. What is a stock?
6. What are the major types of markets for financial securities in the U. S. economy?
7. What are financial intermediaries?
8. How does Adam Smith's invisible hand apply to the decisions made by people who borrow and save using financial institutions?

ACCOMMODATIONS/MODIFICATIONS:

N/A

REPRODUCIBLE MATERIALS:

Activities 1 and 2

Visuals 1, 2, 3, 4, and 5

Visual 1, The Market for Stocks

ASSESSMENT PROCEDURES:

Have one group of students contact a reputable stockbroker, if possible one affiliated with a national brokerage company. The students should explain they have learned that the nationally known stock and bond markets are actually “second-hand” or secondary markets, and ask the stockbroker to provide them with a recent example of a new issue of stocks, and a copy of the prospectus for that new issue. They should be sure to find out from the stockbroker:

1. Who issued the new stock?
2. What investment banks originally purchased the new issue of stock from the corporation?
3. How will individual buyers be able to purchase these shares? (Name the exchanges on which the stock is now being traded, if any. If the stock is from a privately held corporation, it may not be traded on any exchange.)

Have another group of students interview a local banker, and ask the banker to explain how deposits from the local community are channeled to those who borrow money (both business and individuals).

Have both groups report their findings to the entire class, pointing out how savings are channeled to investments, and how the local and national economy benefit from this activity.

EXPLORATION AND EXTENSION:

The Stock Market Game, www.smgww.org

The Wall Street Journal

RESOURCES:

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REFLECTIONS:

N/A

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Visual 1

Saving and Investing

Saving: Not consuming all current income.

Investment:

The production and purchase of capital goods, such as machines, building, and equipment that can be used to produce more goods and services in the future.

Personal investment:

Purchasing financial securities such as stocks and bonds, which are riskier than savings accounts because they may fall in value, but in most cases will pay a high rate of return in the long run that is higher than the interest paid on savings accounts.

Visual 2

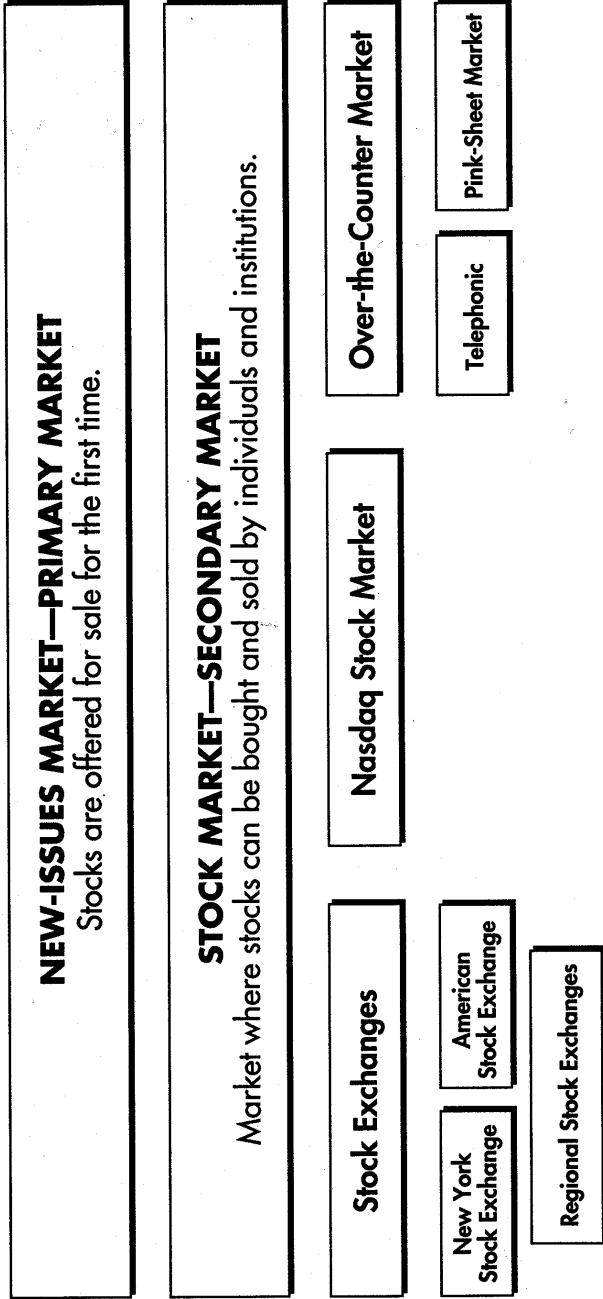
Two Kinds of Markets for Financial Securities

Primary markets: New issues of bonds and corporate stocks are offered for sale to the public by companies or investment banks.

Secondary Markets:

Markets where previously issued stocks and bonds can be bought and sold by individuals and institutions, including the New York Stock Exchange, the American Stock Exchange, and NASDAQ.

VISUAL 1
THE MARKET FOR STOCKS



LESSON SEVENTEEN

Activity 1

Saving, Investment, or Personal Investing?

Directions: In the blank space before each of the statements below, mark an **S** in the space if the situation involves saving, an **I** if the situation involves investing, a **P** if the situation involves personal investing, and an **N** if the situation involves neither saving nor investing.

- _____ A. Katie borrowed \$25,000 from a bank to purchase a computer and other equipment and supplies to open her new Internet home page business.
- _____ B. Aunt Bonnie buys 100 shares of America Online, hoping that the price per share will increase.
- _____ C. Uncle Mike dies and leaves his estate of \$100,000 to his five children. They use it to take an around-the-world, once-in-a-lifetime, one-year cruise.
- _____ D. Dam Sun, the head of Sunshine computer Systems, issues new shares of stock in his company through an investment banker, and uses those funds to build a new assembly line to produce the world's fastest microprocessors.
- _____ E. Amanda takes a new job and has \$20 a week deducted from each paycheck to be deposited directly into a savings account at her bank.
- _____ F. Ford Motor Company issues a \$5,000 bond, which is purchased by Granny Sara.
- _____ G. Medical Systems, Inc. builds a new plant to produce experimental pacemakers.
- _____ H. Cousin Mark quits his job to go back to school to study economics, hoping to earn more money with a college degree.

Visual 3

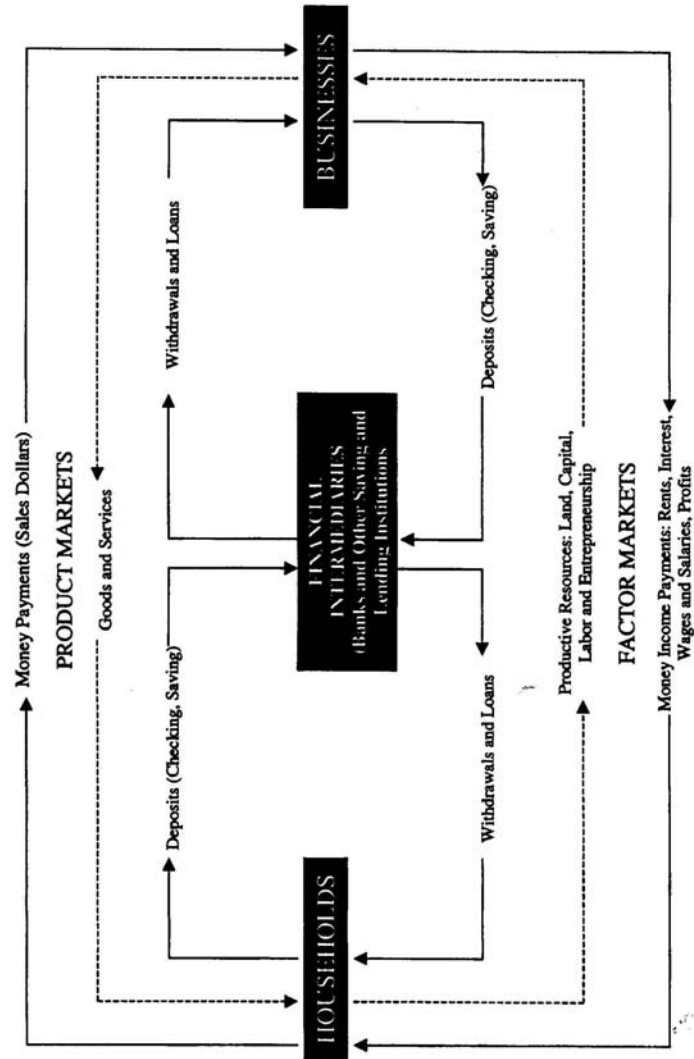
Channeling Savings to Investment

New issues of corporate stock: New corporations raising funds to begin operation, or existing corporations that want to expand their current operations, can issue new shares of stock through the investment banking process. People who buy these shares of stock hope to make money by having the price of the stock increase, and through dividends that may be paid out of future profits.

New issues of bonds: New issues of bonds are issued by companies that want to borrow funds to expand by investing in new factories, machinery, or other projects, and by government agencies that want to finance new building, roads, schools, or other projects. The bonds are a promise to repay the amount borrowed, plus interest, at specified times. Individuals, banks, or other companies that want to earn this interest purchase the bonds.

Borrowing from banks and other financial intermediaries: companies (and individuals) can borrow funds from banks, agreeing to repay the loans, with interest, on a specified schedule. Banks and other financial intermediaries lend out money that has been deposited by other people and firms. In effect, banks and other intermediaries are just a special kind of “middleman,” making it easier for those with money to lend to find those who want to borrow funds. Of course, banks also screen those who borrow money, to make sure they are likely to repay the loans.

Visual 4 The Circular Flow of Income with Financial Intermediaries



LESSON SEVENTEEN

Activity 2

Saving and Investing in Market Economies

Saving and Investing in Market Economies

In a market economy, most basic economic questions about how to use resources are answered by millions of individuals in households and businesses. They decide what goods and services will be produced, how they will be produced, and who will consume the goods and services that are produced.

A key assumption in market economies is that households and business owners usually have better information for making saving and investment decisions that promote their own objectives and take into account their own circumstances than government planners do. After all, how could a relatively small number of government officials have sufficient information to make sound saving and investment decisions regarding thousands of firms and millions of households? Individual savers and investors also have stronger incentives to make good and careful decisions, because they hope to enjoy financial gains as a result of their decisions, and avoid losses.

In countries with market economies, banks provide essential financial services for individual households and businesses, and in the process facilitate economic growth for the overall economy. First, banks provide a safe place for individuals to keep checking and savings accounts. Banks then lend out a large part of those deposits, to help some people start and expand businesses, and many other individuals purchase homes and expensive durable goods, such as refrigerators and cars. Other people borrow money to purchase expensive services, such as education for their children, or medical care, or a foreign vacation.

In developed market economies, financial markets such as stock markets and bond markets also play a critical role in promoting good investment and business practices. Millions of investors - usually working through brokerage firms that analyze thousands of large companies' past performance and plans for future operations and investments - compete to invest in the firms that will earn the highest profits at a reasonable level of risk. Over the long run, firms that are successful will experience rising stock prices. Firms that are unsuccessful or not managed as well as they could be will experience falling stock prices, and eventually go out of business or be taken over by other companies and managers.

Questions for Discussion

1. Who makes most decisions about how much to save and invest in a market economy, and about how to save and invest?
2. Why are banks and financial markets important to economic growth?
3. Why are individuals in households and businesses more likely to make saving and investment decisions that advance their own economic interests more effectively than decisions made by government officials?

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LESSON SEVENTEEN

Visual 5

Adam Smith and the Invisible Hand

“Every individual...neither intends to promote the public interest, nor knows how much he is promoting it.... 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. Nor is it always the worse for the society that it has no part in it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it.”

Adam Smith (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations*. University of Chicago Press, 1976, p. 477.