## Saving and Investing

- How does investing contribute to the free enterprise system?
- How does the financial system bring together savers and borrowers?
- How do financial intermediaries link savers and borrowers?
- What are the trade-offs between risk and return?
$<$


## Private Enterprise and Investing

- Investment is the act of redirecting resources from being consumed today so that they may create benefits in the future.
- In short, investment is the use of assets to earn income or profit.
- When people save or invest their money, their funds become available for businesses to use to expand and grow. In this way, investment promotes economic growth.


## The Financial System

## Financial Assets

- When savers invest, they receive documents confirming their deposit or bond purchase, such as passbooks or bond certificates.
- These documents are known as financial assets. They represent claims on property or income of the borrower.

A financial system is a system that allows the transfer of money between savers and borrowers.

## Financial Intermediaries

## Financial intermediaries are institutions that help channel funds from savers to borrowers.

## Banks, Savings and Loan Associations, and Credit Unions

Take in deposits from savers and then lend some of these funds to various businesses
Finance Companies
Make loans to consumers and small businesses, but charge borrowers higher fees and interest rates to cover possible losses
Mutual Funds
Pool the savings of many individuals and invest this money in a variety of stocks and bonds
Life Insurance Companies
Provide financial protection to the family, or other beneficiaries, of the insured
Pension Funds
Are set up by employers to collect deposits and distribute payments to retirees

## The Flow of Savings and Investments

## Financial intermediaries accept funds from savers and make loans to investors.

## Financial Intermediaries

Savers make deposits to...


Financial Institutions that make loans to...
Commercial banks Savings \& loan associations Savings banks
Mutual savings banks Credit unions


Life insurance companies
Mutual funds
Investors

Pension funds
Finance companies

## Services Provided by Financial Intermediaries

## Sharing Risk

- Diversification is the spreading out of investments to reduce risk. Financial intermediaries help individual savers diversify their investments.


## Providing Information

- Financial intermediaries reduce the costs in time and money that lenders and borrowers would pay if they had to search out investment information on their own.


## Providing Liquidity

- Financial intermediaries allow savers to easily convert their assets into cash.


## Risk and Return

## Return and Liquidity

- Savings accounts have greater liquidity, but in general have a lower rate of return.
- Certificates of deposit usually have a greater return but liquidity is reduced.


## Return and Risk

- Investing in a friend's Internet company could double your money, but there is the risk of the company failing.
- In general, the higher potential return of the investment, the greater the risk involved.

Return is the money an investor receives above and beyond the sum of money initially invested.


Investors must weigh the risks explained in this chart against the potential rate of return on their investment. Income What additional examples can you think of to illustrate each of the types of risk explained in the chart?

## Figure 11.2 Types of Risk

| Name | Description | Example |
| :---: | :---: | :---: |
| Credit risk | Borrowers may not pay back the money they have borrowed, or they may be late in making payments. | You lend $\$ 20$ to your cousin, who promises to pay you back in two weaks. Whan your cousin fails to pay you on time, you don't have money for the basketball tickets you had planned to buy. |
| Liquidity risk | You may not be able to convert the irvestment back into cash quickly enough for your needs. | Your CD player is worth $\$ 100$. You need cash to buy concert tickets, so you de cide to sell your CD player. To convert your CD player into cash on short notice. you have to discount the price to $\$ 76$. |
| Inflation rate risk | Inflation rates erode the value of your assets. | Ricardo lends Jeff $\$ 1,000$ for one year at 10 percent interest. If the inflation rate is 12 percent Ricardo loses monay. |
| Time risk | You may have to pass up better opportunities for irvestment | Lili invests $\$ 100$ in Mays cleaning business, to be repaid at 5 percent interest one year later. Six months later, Lili is unable to irvest in Sonia's pet-sitting business, which pays 10 percent interest because she has already irvested her savings. |

## Section 1 Assessment

1. Investment is
(a) providing money for your family.
(b) the act of redirecting resources from being consumed today so that they may create benefits in the future.
(c) an institution that helps channel funds from savers to borrowers.
(d) a collection of financial intermediaries.
2. The money an investor receives above and beyond the money initially invested is called
(a) investment.
(b) savings.
(c) return.
(d) prospectus.

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## Bonds and Other Financial Assets

- What are the characteristics of bonds as financial assets?
- What are the different types of bonds?
- What are characteristics of other major financial assets?
- What are the four different types of financial markets?


## Bonds as Financial Assets

Bonds are basically loans, or IOUs, that represent debt that the government or a corporation must repay to an investor. Bonds have three basic components:

1. The coupon rate - the interest rate that the issuer will pay the bondholder.
2. The maturity - the time when payment to the bondholder is due.
3. The par value - the amount that an investor pays to purchase the bond and that will be repaid to the investor at maturity.

Not all bonds are held to maturity. Sometimes bonds are traded or sold and their price may change. Economists therefore refer to a bond's yield, which is the annual rate of return on the bond if the bond were held to maturity.

## Buying Bonds at a Discount

## - Investors earn interest on the bonds they buy. They can also earn money by buying bonds at a discount from par.

## Discounts from Par

1. Sharon buys a bond with a par value of $\$ 1,000$ at 5 percent interest.

2. Interest rates go up to 6 percent.
3. Sharon needs to sell her bond. Nate wants to buy it, but is unwilling to buy a bond at 5 percent interest when the current rate is 6 percent.
4. Sharon offers to discount the bond, taking $\$ 40$ off the price and selling it for $\$ 960$.
5. Nate accepts the offer. He now owns a $\$ 1,000$ bond paying 5 percent interest, which he purchased at a discount from par.


Bond purchase with discount from par


## Bond Ratings

- Standard \& Poor's and Moody's rate bonds on a number of factors, including the issuer's ability to make future payments and to repay the principal when the bond matures.
- A high bond rating usually means that the bond will sell at a higher price, and that the firm will be able to issue the bond at a lower interest rate.

| Bond Ratings |  |  |  |
| :---: | :---: | :---: | :---: |
| Standard \& Poor's |  | Moody's |  |
| Highest investment grade | AAA | Best quality | Aaa |
| High grade | AA | High quality | Aa |
| Upper medium grade | A | Upper medium grade | A |
| Medium grade | BBB | Medium grade | Baa |
| Lower medium grade | BB | Possesses speculative elements | Ba |
| Speculative | B | Generally not desirable | B |
| Vulnerable to default | CCC | Poor, possibly in default | Caa |
| Subordinated to other debt rated CCC | CC | Highly speculative, often in default | Ca |
| Subordinated to CC debt | C | Income bonds not paying income | C |
| Bond in default | D | Interest and principal payments in default | D |

## Advantages and Disadvantages to Bond Issuers

- Bonds are desirable from the issuer's point of view for two main reasons:

1. Once the bond is sold, the coupon rate for that bond will not go up or down.
2. Unlike stock, bonds are not shares of ownership in a company.

- Bonds also pose two main disadvantages to the issuer:

1. The company must make fixed interest payments, even in bad years when it does not make money.
2. If the issuer does not maintain financial health, its bonds may be downgraded to a lower bond rating. This makes it harder to sell future bonds unless a discount or higher interest rate is offered.

## Types of Bonds

## Savings Bonds

- Savings bonds are low-denomination ( $\$ 50$ to $\$ 10,000$ ) bonds issued by the United States government. Savings bonds are purchased below par value (a $\$ 100$ savings bond costs $\$ 50$ to buy) and interest is paid only when the bond matures.
Treasury Bonds, Bills, and Notes
- These investments are issued by the United States Treasury Department.

Municipal Bonds

- Municipal bonds are issued by state or local governments to finance such improvements as highways, state buildings, libraries, and schools.
Corporate Bonds
- A corporate bond is a bond that a corporation issues to raise money to expand its business.
Junk Bonds
- Junk bonds are lower-rated, potentially higher-paying bonds.


## Other Types of Financial Assets

## Certificates of Deposit

- Certificates of deposit (CDs) are available through banks, which use the funds deposited in CDs for a fixed amount of time.
- CDs have various terms of maturity, allowing investors to plan for future financial needs.

Money Market Mutual Funds

- Money market mutual funds are special types of mutual funds.
- Investors receive higher interest on a money market mutual fund than they would receive from a savings account or a CD. However, assets in money market mutual funds are not FDIC insured.


## Financial Asset Markets

- One way to classify financial asset markets is according to the length of time for which the funds are lent.
- Capital markets are markets in which money is lent for periods longer than a year. CDs and corporate bonds are traded in capital markets.
- Money markets are markets in which money is lent for periods of less than a year. Short-term CDs and Treasury bills are traded in money markets.
- Markets can also be classified according to whether assets can be resold to other buyers.
- Primary markets involve financial assets that cannot be transferred from the original holder, such as savings bonds.
- Secondary markets involve financial assets that can be resold, such as stocks.


## Section 2 Assessment

1. A bond is a
(a) loan that represents debt that the government or a corporation must repay to an investor.
(b) portion of ownership in a corporation.
(c) system that allows the transfer of funds between savers and borrowers.
(d) collection of financial assets.
2. How does the risk involved in a money market mutual fund compare with the risk of a certificate of deposit?
(a) The risk of the money market mutual fund is less than the certificate of deposit.
(b) The risk of the money market mutual fund is slightly greater than the certificate of deposit.
(c) The risk of the money market mutual fund is much greater than the certificate of deposit.
(d) The risk of both is about the same.

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## The Stock Market

- What are the benefits and risks of buying stock?
- How are stocks traded?
- How is stock performance measured?
- What were the causes and effects of the Great Crash of 1929?


## Buying Stock

- Corporations can raise money by issuing stock, which represents ownership in the corporation. A portion of stock is called a share. Stocks are also called equities.
- Stockowners can earn a profit in two ways:

1. Dividends, which are portions of a corporation's profits, are paid out to stockholders of many corporations. The higher the corporate profit, the higher the dividend.
2. A capital gain is earned when a stockholder sells stock for more than he or she paid for it. A stockholder that sells stock at a lower price than the purchase price suffers a capital loss.

## Types of Stock

## Dividend Differences

- Income stock pays dividends at regular times during the year.
- Growth stock pays few or no dividends. Instead, the issuing company reinvests earnings into its business.


## Decision-Making Differences

- Investors who buy common stock are voting owners of the company.
- Preferred stock owners are nonvoting owners of the company, but receive dividends before the owners of common stock.

Stocks may be classified either by whether or not they pay dividends or whether or not the stockholder has a say in the corporation's affairs.

## Stock Splits and Stock Risks

## Stock Splits

- A stock split is the division of a single share of stock into more than one share.
- Stock splits occur when the price of a stock becomes so high that it discourages potential investors from buying it.

Risks of Buying Stock

- Purchasing stock is risky because the firm selling the stock may encounter economic downturns that force dividends down or reduce the stock's value. It is considered a riskier investment than bonds.


## How Stocks Are Traded

- A stockbroker is a person who links buyers and sellers of stock.
- Stockbrokers work for brokerage firms, or businesses that specialize in trading stock.
- Some stock is bought and sold on stock exchanges, or markets for buying and selling stock.


## Stock Exchanges

## The New York Stock Exchange (NYSE)

- The NYSE is the country's largest stock exchange. Only stocks for the largest and most established companies are traded on the NYSE.


## NASDAQ-AMEX

- NASDAQ-AMEX is an exchange that specializes in high-tech and energy stock.


## The OTC Market

- The OTC market (over-the-counter) is an electronic marketplace for stock that is not listed or traded on an organized exchange.


## Daytrading

- Daytraders use computer programs to try and predict minute-by-minute price changes in hopes of earning a profit.


## Futures and Options

- Futures are contracts to buy or sell at a specific date in the future at a price specified today.
- Options are contracts that give investors the option to buy or sell stock and other financial assets. There are two types of options:

1. Call options give buyers the option to buy shares of stock at a specified time in the future.
2. Put options give buyers the option to sell shares of stock at a specified time in the future.

## Measuring Stock Performance

## Bull and Bear Markets

- When the stock market rises steadily over time, a bull market exists. Conversely, when the stock market falls over a period of time, it's called a bear market.

Stock Performance Indexes

- The Dow Jones Industrial Average
- The Dow is an index that shows how stocks of 30 companies in various industries have changed in value.
- The S \& P 500
- The S \& P 500 is an index that tracks the performance of 500 different stocks.


## The Great Crash

## Causes of the Crash

- Many ordinary Americans were struggling financially: many purchased new consumer goods by borrowing money.
- Speculation, or the practice of making high-risk investments with borrowed money in hopes of getting a big return, was common.

Effects of the Great Crash

- The Crash contributed to a much wider, long-term crisis - the Great Depression during which many people lost their jobs, homes, and farms.
- Americans also became wary of buying stock. As recently as the early 1980s, only about 25 percent of households in the United States owned stock.


## The collapse of the stock market in 1929 is called the Great Crash.

## Section 3 Assessment

1. A share of stock represents
(a) debt that the government or a corporation must repay to an investor.
(b) a portion of ownership in a corporation.
(c) a system that allows the transfer of funds between savers and borrowers.
(d) a collection of financial assets.
2. Which of the following represents a way to profit from buying stock?
(a) capital gains
(b) portfolios
(c) speculation
(d) capital losses

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