SESSION 4:
Saving, Investing, and Protecting

Session Description

Students will learn about the importance of saving, the various options for financial investments, and how to protect and insure against loss.

Talking Points

Saving

1. People's income is saved, spent on goods and services, or used to pay taxes. People choose between immediate spending and saving for future consumption. Because some people are less patient than others, they choose immediate spending over saving.

2. Setting a savings goal can serve as an incentive to encourage people to save. And, having a savings plan helps people reach their savings goals.

3. People may choose to save money in many places. For example, they can save at home, at a commercial bank, a credit union, or a savings and loan.

4. Banks and other financial institutions often pay interest on deposits. People also deposit money in banks because banks are a safe place to keep money.

5. Banks and other financial institutions loan money they receive from depositors (deposits) to borrowers. Banks charge borrowers interest for the loans. Part of the money received as interest from these loans is used to pay interest to depositors for the use of their money.

6. An interest rate is usually expressed as an annual percentage of the amount saved. The interest rate paid on savings and charged on loans, like all prices, is determined in a market. When interest rates increase, people earn more on their savings and their savings grow more quickly. Principal is the initial amount of money deposited on which interest is paid.

7. Compound interest is the interest that is earned on the principal and the interest already earned.

8. The value of a person's savings in the future is determined by the amount saved and the interest rate. The earlier people begin to save, the more savings they will be able to accumulate (all other things equal) as a result of compound interest.

9. People save money for different reasons, including higher education, retirement, unexpected events, and large purchases such as cars and homes.

10. To assure savers that their deposits are safe from bank failures, federal agencies guarantee depositors' savings in most commercial banks and savings associations up to a set limit.

11. The interest rate that banks quote is the nominal, or stated, interest rate. The real interest rate expresses the rate of return on savings, adjusted for inflation; that is, the real interest rate is the nominal interest rate minus the rate of inflation. Inflation reduces the value of money, including savings.

12. Usually real interest rates are positive because people expect to be compensated for deferring the use of savings from the present to the future—that is, they expect to be paid interest for letting someone else use their money now instead of using it themselves now.

13. The nominal interest rate tells savers and investors how the dollar value of their savings or investments will grow. The real interest rate tells savers and investors how the purchasing power of their savings or investments will grow.

14. Discounting the future value of a sum of money based on an interest rate allows you to compare money received (or paid) in the future with money held today.

15. Government policies can create incentives and disincentives for people to save. Employer benefit programs also create incentives and disincentives for saving.

Investing

1. After people save enough of their income to cover emergencies, they must make choices about investing their savings so that they might grow at a higher rate of return.

2. A financial investment involves the purchase of a financial asset. Financial assets include a variety of financial instruments, such as bank deposits, stocks, bonds, and mutual funds. Real estate and commodities are also often viewed as financial assets. As discussed earlier, depositors receive interest on money deposited in bank accounts. Investors also receive interest when they own a corporate or government bond or make a loan.

3. When people buy corporate stock, they are purchasing ownership shares in a business. If the business is profitable, share owners expect to receive income in the form of dividends and/or an increase in the stock's value. An increase in the value of an asset such as a stock is called a capital gain. If the business is not profitable, share owners could lose the money they have invested.

4. As with other goods and services, buyers and sellers in financial markets determine the price of financial assets and thus influence the rates of return on those assets. The prices of financial assets reflect what is known about the assets. These prices adjust to new financial news/information. The prices of financial assets are also affected by interest rates, changes in domestic and international economic conditions, monetary policy, and fiscal policy.

5. The rate of return on financial investments includes interest payments, dividends, and capital appreciation expressed as a percentage of the amount invested.

6. Risk is the chance of loss or harm. In the case of financial investments, there is financial risk, with a range of possible outcomes including loss of the investment. Higher-risk investments have a wider range of possible returns. The rate of return earned from investments varies with the amount of risk. In general, the higher the expected rate of return, the higher the risk of loss and vice versa.

7. Some people are more willing to take risk than others. How much risk people are willing to take depends on factors such as personality, income, and family situation.

8. The real return on a financial investment is the nominal (stated) interest rate minus the rate of inflation.

9. Any expenses associated with buying, selling, and holding financial assets decrease the rate of return from an investment. Federal, state, and local tax rates vary on different types of investments and affect the after-tax rate of return on the investment.

10. In general, an investment with relatively high risk will have a lower market price and therefore a higher rate of return than an investment with relatively low risk.

11. Short-term investments generally have lower rates of return than longer-term investments.

12. Diversification involves investing in different types of financial assets in order to lower investment risk.

13. People planning to invest should be aware of the following common poor choices based on faulty logic:
    a. selling assets at a loss based on the belief that losses weigh more heavily than gains, and
    b. investing only in assets that are more familiar (i.e., employer's stock or domestic stocks).

14. People planning to invest should recognize that "If it sounds too good to be true, it is."

15. There is a role for government when individuals do not have access to competitive financial markets or do not have complete information about alternative investments. The Securities and Exchange Commission (SEC), the Federal Reserve, and other government agencies regulate financial markets.

Protecting

1. As noted earlier, risk is the chance of loss or harm. Risk from accidents or unexpected events is an unavoidable part of life. People face personal financial risk when unexpected events damage health, income, property, wealth, or future opportunities.

2. People can choose to accept some risk, take steps to avoid or reduce risk, or transfer risk to others through the purchase of insurance. Each option has costs and benefits. Most people are willing to pay a small cost now if it means they can avoid a possible larger loss later.

3. People often judge potential risk incorrectly because when they hear of harmful events—for example, a storm or fire—they tend to think such events occur more often than they actually do.

4. One way to prepare for unexpected losses it to save for emergencies. Self-insurance involves accepting risk and saving money on a regular basis to cover a potential loss.

5. Insurance is a tool for protecting against risk. People choose different amounts of insurance coverage based on their willingness to accept risk as well as their occupation, lifestyle, age, financial profile, and the price of insurance.
    a. Insurance allows people to transfer the costs of a potential loss to a third party by paying a fee (called a premium).
    b. Insurance companies create insurance contracts (policies) by analyzing the outcomes of individuals who face similar types of risks.
    c. Insurance companies create pools of funds from which to compensate individual policyholders who experience a large loss by collecting relatively small amounts of money (premiums) from policyholders on a regular basis.
    d. People pay higher prices (premiums) for insurance policies that guarantee higher levels of payment (coverage) in the event of a loss.
    e. Insurance companies charge higher premiums to cover higher-risk individuals and events because the risk of monetary loss is greater for these individuals and events.
    f. Often, having insurance results in people taking more risk than they normally would, thus increasing the probability or size of a potential loss.

   g. Policy features such as deductibles and copayments are cost-sharing features that encourage the policyholder to take steps to reduce the potential size of a loss (claim).

   h. People can lower insurance premiums by behaving in ways that show they pose a lower risk. For example, taking a safe-driving course or being a nonsmoker may lower a person's car insurance premium.

6. There are a variety of types of insurance:

   a. Health insurance provides funds to pay for health care in the event of illness. It may also pay the cost of preventive care.

   b. Large health insurance companies can often negotiate with doctors, hospitals, and other health-care providers for lower prices for their policyholders.

   c. Disability insurance provides funds to replace income lost while an individual is ill or injured and unable to work.

   d. Property and casualty insurance (e.g., renters insurance and car insurance) pays for damage or loss to the insured's property. These types of insurance often include liability coverage in the event that someone is harmed by the insured or on the insured's property.

   e. Life insurance pays benefits to the insured's beneficiaries in the event that the policyholder dies.

7. There are times when people may be required by governments or certain types of contracts (e.g., home mortgages) to purchase some types of insurance.

8. Beyond private insurance, some government-benefit programs provide a social safety net to protect individuals from economic hardship or loss caused by unexpected events. These include government transfer programs such as Social Security disability benefits, unemployment insurance, workers' compensation, Medicare, and Medicaid.

9. Social networking sites and other online activity can make individuals vulnerable to harm caused by identify theft or misuse of their personal information. Identity theft can result in loss of assets, wealth, and future opportunities. Managing personal information and carefully choosing the environments in which such information is revealed help individuals reduce and insure against the risk of loss due to identity theft.

10. There are federal and state regulations designed to provide some remedies and assistance for victims of identity theft.

Session 4: Standards and Benchmarks

Missouri Personal Finance Competencies

Money Management

5. Summarize how inflation affects spending and saving decisions.
6. Evaluate how insurance (e.g., auto, home, life, medical and long-term health) and other risk-management strategies protect against financial loss.

Spending and Credit

9. Demonstrate awareness of consumer protection and information (e.g., identity theft, phishing, and scams).

Saving and Investing

1. Compare consumer choices for saving and investing.
2. Explain the relationship between saving and investing.
3. Examine reasons for saving and investing (e.g., time value of money).
4. Compare the risk, return, liquidity, manageability, and tax aspects of investment alternatives.
6. Analyze factors affecting the rate of return on investments (e.g., Rule of 72, simple interest, and compound interest).

National Standards for Financial Literacy

Standard 3: Saving, Grade 8 Benchmarks

1. Banks and other financial institutions loan funds received from depositors to borrowers. Part of the interest received from these loans is used to pay interest to depositors for the use of their money.
2. For the saver, an interest rate is the price a financial institution pays for using a saver's money and is normally expressed as an annual percentage of the amount saved.
3. Interest rates paid on savings and charged on loans, like all prices, are determined in a market.
4. When interest rates increase, people earn more on their savings and their savings grow more quickly.
5. Principal is the initial amount of money upon which interest is paid.
6. Compound interest is the interest that is earned not only on the principal but also on the interest already earned.
7. The value of a person's savings in the future is determined by the amount saved and the interest rate. The earlier people begin to save, the more savings they

will be able to accumulate, all other things equal, as a result of the power of compound interest.

Standard 3: Saving, Grade 12 Benchmarks

1. People choose between immediate spending and saving for future consumption. Some people have a tendency to be impatient, choosing immediate spending over saving for the future.
2. Inflation reduces the value of money, including savings. The real interest rate expresses the rate of return on savings, taking into account the effect of inflation. The real interest rate is calculated as the nominal interest rate minus the rate of inflation.
3. Real interest rates typically are positive because people expect to be compensated for deferring the use of savings from the present into the future. Higher interest rates increase the rewards for saving.
4. The nominal interest rate tells savers how the dollar value of their savings or investments will grow; the real interest rate tells savers how the purchasing power of their savings or investments will grow.
5. Money received (or paid) in the future can be compared to money held today by discounting the future value based on the rate of interest.
6. Government agencies supervise and regulate financial institutions to help protect the safety, soundness, and legal compliance of the nation's banking and financial system.
7. Government policies create incentives and disincentives for people to save.
8. Employer benefit programs create incentives and disincentives to save. Whether or how much an employee decides to save can depend on how the alternatives are presented by the employer.

Standard 5: Financial Investing, Grade 8 Benchmarks

1. Financial assets include a wide variety of financial instruments including bank deposits, stocks, bonds, and mutual funds. Real estate and commodities are also often viewed as financial assets.
2. Interest is received from money deposited in bank accounts. It is also received by owning a corporate or government bond or making a loan.
3. When people buy corporate stock, they are purchasing ownership shares in a business. If the business is profitable, they will expect to receive income in the form of dividends and/or from the increase in the stock's value. The increase in the value of an asset (like a stock) is called a capital gain. If the business is not profitable, investors could lose the money they have invested.
4. The price of a financial asset is determined by the interaction of buyers and sellers in a financial market.

5. The rate of return on financial investments consists of interest payments, dividends, and capital appreciation expressed as a percentage of the amount invested.
6. Financial risk means that a financial investment has a range of possible returns, including possibilities of actual losses. Higher-risk investments have a wider range of possible returns.
7. The rate of return earned from investments will vary according to the amount of risk. In general a trade-off exists between the security of an investment and its expected rate of return.

Standard 5: Financial Investing, Grade 12 Benchmarks

1. The real return on a financial investment is the nominal return minus the rate of inflation.
2. Federal, state, and local tax rates vary on different types of investments and affect the after-tax rate of return on an investment.
3. Expenses of buying, selling, and holding financial assets decrease the rate of return from an investment.
4. Buyers and sellers in financial markets determine prices of financial assets and therefore influence the rates of return on those assets.
5. An investment with greater risk than another investment will commonly have a lower market price, and therefore a higher rate of return, than the other investment.
6. Shorter-term investments will likely have lower rates of return than longer-term investments.
7. Diversification by investing in different types of financial assets can lower investment risk.
8. Financial markets adjust to new financial news. Prices in those markets reflect what is known about those financial assets.
9. The prices of financial assets are affected by interest rates. The prices of financial assets are also affected by changes in domestic and international economic conditions, monetary policy, and fiscal policy.
10. Investors should be aware of tendencies that people have that may result in poor choices. These include avoiding selling assets at a loss because they weigh losses more than they weigh gains and investing in financial assets with which they are familiar, such as their own employer's stock or domestic rather than international stocks.
11. People vary in their willingness to take risks. The willingness to take risks depends on factors such as personality, income, and family situation.
12. An economic role for governments exists if individuals do not have complete information about the nature of alternative investments or access to competitive financial markets.

13. The Securities and Exchange Commission (SEC), the Federal Reserve, and other government agencies regulate financial markets.

Standard 6, Protecting and Insuring, Grade 8 Benchmarks

1. Personal financial risk exists when unexpected events can damage health, income, property, wealth, or future opportunities.
2. Insurance is a product that allows people to pay a fee (called a premium) now to transfer the costs of a potential loss to a third party.
3. Insurance companies analyze the outcomes of individuals who face similar types of risks to create insurance contracts (policies). By collecting a relatively small amount of money, called a premium, from each policyholder on a regular basis, the company creates a pool of funds to compensate those individuals who experience a large loss.
4. Self-insurance is when an individual accepts a risk and saves money on a regular basis to cover potential loss.
5. Insurance policies that guarantee higher levels of payment in the event of a loss (coverage) have higher prices.
6. Insurance companies charge higher premiums to cover higher-risk individuals and events because the risk of monetary loss is greater for these individuals and events.
7. Individuals can choose to accept some risk, to take steps to avoid or reduce risk, or to transfer risk to others through the purchase of insurance. Each option has different costs and benefits.
8. Social networking sites and other online activity can make individuals vulnerable to harm caused by identity theft or misuse of their personal information.

Standard 6, Protecting and Insuring, Grade 12 Benchmarks

1. Probability quantifies the likelihood that a specific event will occur, usually expressed as the ratio of the number of actual occurrences to the number of possible occurrences.
2. Individuals vary with respect to their willingness to accept risk. Most people are willing to pay a small cost now if it means they can avoid a possible larger loss later.
3. Judgment regarding risky events is subject to errors because people tend to overestimate the probability of infrequent events, often because they've heard or seen a recent example.
4. People choose different amounts of insurance coverage based on their willingness to accept risk, as well as their occupation, lifestyle, age, financial profile, and the price of insurance.

5. People may be required by governments or by certain types of contracts (e.g., home mortgages) to purchase some types of insurance.
6. An insurance contract can increase the probability or size of a potential loss because having the insurance results in the person taking more risks. Policy features such as deductibles and copayments are cost-sharing features that encourage the policyholder to take steps to reduce the potential size of a loss (claim).
7. People can lower insurance premiums by behaving in ways that show they pose a lower risk.
8. Health insurance provides funds to pay for health care in the event of illness and may also pay for the cost of preventive care. Large health insurance companies can often negotiate with doctors, hospitals, and other health care providers to obtain lower health care prices for their policyholders.
9. Disability insurance is income insurance that provides funds to replace income lost while an individual is ill or injured and unable to work.
10. Property and casualty insurance (including renters insurance) pays for damage or loss to the insured's property and often includes liability coverage for actions of the insured that cause harm to other people or their property.
11. Life insurance benefits are paid to the insured's beneficiaries in the event of the policyholder's death. These payments can be used to replace wages lost when the insured person dies.
12. In addition to privately purchased insurance, some government benefit programs provide a social safety net to protect individuals from economic hardship created by unexpected events.
13. Loss of assets, wealth, and future opportunities can occur if an individual's personal information is obtained by others through identify theft and then used fraudulently. By managing their personal information and choosing the environment in which it is revealed, individuals can accept, reduce, and insure against the risk of loss due to identify theft.
14. Federal and state regulations provide some remedies and assistance for victims of identity theft.

Common Core State Standards

- CCSS.ELA-Literacy.RH.9-10.1 Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
- CCSS.ELA-Literacy.RH.9-10.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
- CCSS.ELA-Literacy.RH.9-10.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.

- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
    - CCSS.ELA-Literacy.SL.9-10.1D Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- CCSS.ELA-Literacy.L.9-10.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
- CCSS.ELA-Literacy.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
- CCSS.ELA-Literacy.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- CCSS.ELA-Literacy.SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
    - CCSS.ELA-Literacy.SL.11-12.1D Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- CCSS.ELA-Literacy.L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Session 4: Resources

Saving

1. Complete one of the following, either the print lesson or the online course:

    a. Print lesson with PowerPoint and whiteboard resources: It's Your Paycheck—KaChing!, Lesson 5: Savvy Savers; http://www.stlouisfed.org/education_resources/its-your-paycheck-curriculum-unit/

    b. Online course: It's Your Paycheck—KaChing!, Lesson 5: Savvy Savers

        i. Go to www.stlouisfed.org.

        ii. Choose "Education Resources."

        iii. Choose Teachers: Go directly to the Online Course Login .

        iv. Create an account or, if you already have an account, log in.

        v. Register your class for the "It's Your Paycheck—KaChing!, Lesson 5: Savvy Savers" course.

2. Online course: Soar to Savings

    a. Go to www.stlouisfed.org.

    b. Choose "Education Resources."

    c. Choose Teachers: Go directly to the Online Course Login .

    d. Create an account or, if you already have an account, log in.

    e. Register your class for the "Soar to Savings" course.

3. Online course: Paying and Receiving Interest

    a. Go to www.stlouisfed.org.

    b. Choose "Education Resources."

    c. Choose Teachers: Go directly to the Online Course Login .

    d. Create an account or, if you already have an account, log in.

    e. Register your class for the "Paying and Receiving Interest" course.

4. Online course: Time Value of Money

    a. Go to www.stlouisfed.org.

    b. Choose "Education Resources."

    c. Choose Teachers: Go directly to the Online Course Login .

    d. Create an account or, if you already have an account, log in.

    e. Register your class for the "Time Value of Money" course.

5. Online Video Q&A (Short videos followed by a few multiple-choice questions)
    a. No-Frills Money Skills, Episode 1: Growing Money (7:21)
        i. Go to www.stlouisfed.org.
        ii. Choose "Education Resources."
        iii. Choose Teachers: Go directly to the Online Course Login .
        iv. Create an account or, if you already have an account, log in.
        v. Register your class for the "No-Frills Money Skills, Episode 1, Growing Money" video.
    b. No-Frills Money Skills, Episode 2: Ways to Save: 401(k) and Roth 401(k) (11:12)
        i. Go to www.stlouisfed.org.
        ii. Choose "Education Resources."
        iii. Choose Teachers: Go directly to the Online Course Login .
        iv. Create an account or, if you already have an account, log in.
        v. Register your class for the "No-Frills Money Skills, Episode 2: Ways to Save: 401(k) and Roth 401(k)" video.

6. Econ Ed Mobile Learning App (From the Federal Reserve Bank of St. Louis, available on iTunes and Google Play): Beat the Expert (A budget challenge game pitting students' financial prowess against a seasoned specialist)
    a. Choose "Budgeting." Choose "Experiment." Play the game "Beat the Financial Expert."

Investing

7. Print lesson with PowerPoint and whiteboard resources: Diversification and Risk; http://www.stlouisfed.org/education_resources/diversification-and-risk/

8. Online Video Q&A (Short videos followed by a few multiple-choice questions)
    a. No-Frills Money Skills, Episode 3: Getting into Stocks (8:58)
        i. Go to www.stlouisfed.org.
        ii. Choose "Education Resources."
        iii. Choose Teachers: Go directly to the Online Course Login .
        iv. Create an account or, if you already have an account, log in.
        v. Register your class for the "No-Frills Money Skills, Episode 3: Getting into Stocks" video.

b. No-Frills Money Skills, Episode 4: Understanding Bonds (12:44)

   i. Go to www.stlouisfed.org.

   ii. Choose "Education Resources."

   iii. Choose Teachers: Go directly to the Online Course Login .

   iv. Create an account or, if you already have an account, log in.

   v. Register your class for the "No-Frills Money Skills, Episode 4: Understanding Bonds" video.

c. Tools for Enhancing The Stock Market Game™: Invest It Forward™, Understanding Capital Markets—High School and College (5:33)

   i. Go to www.stlouisfed.org.

   ii. Choose "Education Resources."

   iii. Choose Teachers: Go directly to the Online Course Login .

   iv. Create an account or, if you already have an account, log in.

   v. Register your class for the "Tools for Enhancing The Stock Market Game™: Invest it Forward™, Understanding Capital Markets—High School and College" video.

9. Online course: Time Value of Money

   a. Go to www.stlouisfed.org.

   b. Choose "Education Resources."

   c. Choose Teachers: Go directly to the Online Course Login .

   d. Create an account or, if you already have an account, log in.

   e. Register your class for the "Time Value of Money" course.

10. Econ Ed Mobile Learning App (From the Federal Reserve Bank of St. Louis, available on iTunes and Google Play): Beat the Expert (A budget challenge game pitting students' financial prowess against a seasoned specialist)

   a. Choose "Budgeting." Choose "Experiment." Play the game "Beat the Financial Expert."

Protecting

11. Print lesson: Making Personal Finance Decisions, Unit Ten: Protecting—The Insurance Game: Is Insurance Worth Buying? (Minnesota Council on Economic Education); http://www.mcee.umn.edu/sites/mcee.umn.edu/files/mpfd-_units_one-ten.pdf

12. Online lesson: Personal Finance 101 Chats (Lessons in the form of instant-messaging chats)
    a. Car Insurance; http://www.stlouisfed.org/education_resources/personal-finance-101-chats/pf-101-chat-car-insurance/

13. Print lesson: Financial Fitness for Life (9-12) (Virtual Economics® 4.0)
    a. Lesson 10: Managing Risk

14. Consumer information: Identity Theft (Federal Trade Commission); http://www.consumer.ftc.gov/features/feature-0014-identity-theft