Lesson 5.2: Save, Invest, or Both?

Adapted from FRE *Building Wealth*, *Lesson 7: Risk and Return*, Federal Reserve Bank of Dallas
https://www.federalreserveeducation.org/teaching-resources/personal-finance/investing/risk-and-return

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Standards and Benchmarks

See page 7.

Lesson Description

In this lesson, students compare the characteristics of saving and investing while exploring the relationship between risk and return. Through financial scenarios, a compound interest activity, and a gallery walk, students examine common types of financial risk and evaluate how financial goals, risk tolerance, and time horizon influence saving and investing decisions. Students apply these concepts by evaluating financial advice. To obtain answer keys for the handouts and assessment in this lesson, create an account on FederalReserveEducation.org..

Concepts

Diversification
Financial goals
Financial risk
Investing
Risk vs. return
Risk tolerance
Saving
Time horizon

Objectives

Students will be able to:

- compare the tradeoffs between saving and investing.
- explain the relationship between risk and potential return.
- analyze how financial goals, risk tolerance, and time horizon influence saving and investing decisions.
- apply knowledge of financial risk to evaluate financial decisions and advice.

Compelling Question

How do I decide whether to save, invest, or both?

Time Required

90 minutes or two 45-minute class periods.

Materials

- Save, Invest, or Both? Lesson 5.2 Slides
- Handout 5.2.1: Save, Invest, or Both, one copy for each student
- Handout 5.2.2: Types of Financial Risk, one copy for each student
- Handout 5.2.3: Gallery Walk Stations, one copy printed one-sided
- Handout 5.2.4: Gallery Walk Responses, one copy for each student
- Handout 5.2.5: Assessment, one copy for each student
- Video: "What's the Difference Between Saving and Investing?":
  https://www.youtube.com/watch?v=41NEzVjGmts
  Video: "5 Questions to Ask Before Investing":
  https://www.youtube.com/watch?v=y72iyLPOv8E

Preparation

- Print Handout 5.2.3: Gallery Walk Stations one-sided and post the seven station pages around the room to create the Gallery Walk. Place the stations far enough apart to allow groups to rotate easily and discuss each scenario without interfering with one another.

Procedure

Day 1

1. Display Slide 2 (slide is animated). Tell students they will begin the lesson by participating in a brief activity about risk. Explain that there are no right or wrong answers - just respond honestly based on what they would do.

2. Read each scenario aloud. For each one, ask students to give a thumbs up if they would take the risk or a thumbs down if they would play it safe. After each scenario, invite a few volunteers with different responses to briefly explain their reasoning before moving on to the next.

   a. Jump off a 30-foot cliff into the water or stay on shore?

   b. Flip a coin for a chance to win $60 or take a guaranteed $25?

   c. Buy event tickets hoping to resell them for twice the price or keep your money?

   d. Eat at a restaurant with zero reviews or choose one with lots of positive reviews?

   e. Drive to a new destination without planning your route or map it out before you leave?

3. Explain that each scenario involved weighing a potential reward against a possible **risk**. Although students were presented with the same situations, they made different choices because they viewed the risks and rewards differently.

4. Tell students that financial decisions work the same way. When deciding what to do with their money, people must weigh the potential **return** – the money they hope to earn or gain – against the possible risks. Display Slide 3 and briefly review the definitions of **saving**, **investing**, and **financial risk**.

5. Explain that one of the biggest financial decisions people make is whether to save, invest, or both. Throughout the lesson students will learn how goals, time, and risk influence that decision.

6. Tell students that many people assume saving and investing are the same thing. While they do have similarities, saving and investing are two different actions. Instruct students to consider the discussion question on Slide 4 as they watch a brief video explaining the difference between the two.

    a. What are the biggest trade-offs between saving and investing? (*Saving generally offers lower risk and easier access to money but typically earns a lower return. Investing offers the potential for higher returns but involves greater risk, including the possibility of losing money*.)

    NOTE**:** You can play the video by clicking on the slide or open this URL in a new window: https://www.youtube.com/watch?v=41NEzVjGmts.

7. Provide each student with a copy of Handout 5.2.1: Save, Invest, or Both? Instruct students to open the NerdWallet Compound Interest Calculator using the URL provided on the handout (https://www.nerdwallet.com/banking/calculators/compound-interest-calculator). Review the instructions and ask students to complete Part 1 independently. Once students have finished, debrief the activity to ensure they calculated the ending balances correctly for each of Marcus's options before moving on to Part 2.

    NOTE: Answers may vary slightly depending on calculator settings. For this activity, instruct students to use the NerdWallet Compound Interest Calculator with compound frequency set to **annually** and contribution frequency set to **monthly**.

8. Next, instruct students to independently consider which option they would recommend for Marcus based on the results from Part 1 and record their response in Part 2. Then, have students discuss their recommendations with a partner, explaining the reasoning behind their choices.

    NOTE: Emphasize that while the calculations have correct answers, Marcus's decision does not. Encourage students to support their recommendation with evidence from the calculations while considering the trade-offs between risk and return.

9. Invite a few students to share and point out that, based on the calculations, investing has the potential to produce a much larger balance over time than saving alone.

10. Ask students: If investing has the potential to earn higher returns, why doesn't everyone invest all of their money? (*Answers will vary.*) Explain that Marcus's decision involves more than comparing potential returns; he must also consider the risks associated with investing.

11. Display Slide 5 and introduce the risk pyramid. Tell students this illustrates the relationship between risk and potential return. As you move up the pyramid, investments generally offer the potential for higher returns, but they also carry greater risk of loss. Investments at the bottom of the pyramid are generally safer but typically earn lower returns over time.

12. Tell students the next activity will help them understand what types of financial risks investors generally face. Distribute Handout 5.2.2: Types of Financial Risk to each student. In Part 1, instruct students to read the descriptions of the five types of financial risk associated with investing. After they have finished reading, have them match each news headline to the type of financial risk it best represents in Part 2.

13. Review students' responses as a class, discussing the reasoning behind each match and clarifying any misconceptions about the different types of financial risk.

14. Distribute a copy of Handout 5.2.4: Gallery Walk Responses to each student. Explain that students will participate in a gallery walk to apply what they have learned about the different types of financial risk. Divide the class into seven groups and assign each group to a different station. Each station presents a scenario featuring an investor facing a potential financial risk.

    NOTE: Prior to class, print Handout 5.2.3: Gallery Walk Stations one-sided and post the seven station pages around the room to create the Gallery Walk. Place the stations far enough apart to allow groups to rotate easily and discuss each scenario without interfering with one another.

15. At each station, allow enough time for students to read the scenario, work together to determine which type of financial risk (capital loss, default, fraud, inflation, or liquidity) is illustrated, and explain the reasoning behind their choice. Students should record the group's responses on Handout 5.2.4.

16. When time is called, instruct groups to rotate clockwise to the next station until they have completed all seven stations.

17. Have each group remain at its final station. Ask each group to share its analysis of that scenario with the class, discussing the type of financial risk identified and the evidence used to support the group's reasoning.

18. Have students return to their seats. Ask students: What did the gallery walk teach you about financial risk? (Answers will vary, but guide students to the idea that financial risk comes in many forms. Investors can lose money in different ways, so it's important to understand the risks before making investment decisions.)

Day 2

19. Tell students that financial risk is only one part of making an informed financial decision. Display Slide 6 and review the three factors individuals should consider when deciding whether to save, invest, or do both:

    a. **Financial Goals**: Financial goals that require your money to grow more may require investments with higher potential returns.

    b. **Risk Tolerance**: If you cannot afford to lose your money or see your investment decrease in value, you should generally take less risk.

    c. **Time Horizon**: If you need the money soon, taking less risk may be appropriate because you will have less time to recover from losses. Longer-term goals such as retirement, may allow you to take more risk because you have more time to recover from market downturns and potentially earn higher long-term returns.

20. Display Slide 7 and tell students they will hear financial experts discuss how these factors can influence investment decisions. Instruct students to consider the discussion questions on the slide as they watch the video.

    a. According to the video, why might the best investment choice be different for different people? (*There is no single "best" investment because people have different goals and circumstances. Someone saving for retirement may be willing to take more risk for a higher potential return, while someone who needs their money soon may choose a safer investment.*)

    b. Why is it important to **diversify** your investments? (*Diversifying means spreading your money across different investments instead of putting it all in one place. If one investment loses value, others may perform better, helping reduce your overall risk.*)

    NOTE: You can play the video by clicking on the slide or open this URL in a new window: https://youtu.be/y72iyLPOv8E?si=4imPeqH5gbE2Kzw2

21. Ask students: In addition to diversifying your investments, what are some other ways you can protect yourself against financial risk? (*Starting early allows you to utilize the power of compound interest. Buying and holding protects you from short-term market fluctuations.)*

NOTE: If you used Lesson 5.1 from the Keys to Financial Success Curriculum, students should be able to recall that starting early and buying and holding were important in growing wealth from Handout 5.1.2: The Story of Two Savers.

22. Display Slide 8 and explain that while there is no guaranteed strategy for investing successfully, financial experts often recommend following three general guidelines for long-term investing:

    a. Start early: Starting early gives your money more time to grow.

b. Buy and hold: Keeping your investments for the long term helps you ride out short-term market ups and downs.

c. Diversify: Spreading your money across different investments helps to reduce risk.

23. Have students return to Handout 5.2.1 and ask whether they would change their recommendation for Marcus based on what they have learned throughout the lesson. Facilitate a brief class discussion, encouraging students to support their recommendations. Based on their recommendations, ask students what they have assumed about Marcus's risk tolerance.

    a. *Option 1 assumes Marcus is highly risk averse.*

    b. *Option 2 assumes Marcus is highly tolerant of taking on financial risk.*

    c. *Option 3 assumes Marcus is tolerant of taking on some financial risk.*

Closure

24. Display Slide 9 and ask the closure questions.

    a. How are risk and potential return related when investing? (*The more risk you take, the greater the potential return, but you also have a greater chance of losing money. Lower-risk investments are usually safer, but they generally earn lower returns.*)

    b. What advice would you give someone who is trying to decide whether to save or invest their money? (*It depends on your financial goal, how soon you'll need the money, and how much risk you're comfortable taking. If you need the money soon or can't afford to lose it, saving may be the better choice. If you have a long-term goal and are willing to accept more risk for the chance of higher returns, investing may be a better option.*)

Assessment

25. Provide each student with a copy of Handout 5.2.5: Assessment. Tell students to apply what they have learned about saving, investing, and financial risk to evaluate the financial advice statements in Part 1. For each statement, students should decide whether they agree or disagree. If they disagree, they should rewrite the statement to make it accurate. In Part 2, students should identify the single most important piece of advice they would give someone deciding whether to save, invest, or do both and explain their reasoning.

    NOTE: Only one of the statements in Part 1 is accurate as written. If you think it would benefit your students, consider sharing this information before they begin. This can encourage students to evaluate each statement carefully rather than automatically agreeing with all of them.

National Standards for Personal Financial Education

Standard 4: Investing

People can choose to invest some of their money in financial assets to achieve long-term financial goals, such as buying a house, funding future education, or securing retirement income. Investors receive a return on their investment in the form of income and/or growth in value of their investment over time. People can more easily achieve their financial goals by investing steadily over many years, reinvesting dividends, and capital gains to compound their returns. Investors have many choices of investments that differ in expected rates of return and risk. Riskier investments tend to earn higher long-run rates of return than lower-risk investments. Investors select investments that are consistent with their risk tolerance, and they diversify across a number of different investment choices to reduce investment risk.

Benchmarks: Grade 8

1. Investors in financial assets expect an increase in value over time (capital gain) and/or receipt of regular income, such as interest or dividends.
2. Common types of financial assets include certificates of deposits (CDs), stocks, bonds, mutual funds and real estate.
6. Different types of investments expose investors to different degrees of risk.
7. The benefits of compounding for building wealth are greatest for people who invest regularly over longer periods of time.

Benchmarks: Grade 12

1. A person’s investment risk tolerance depends on factors such as personality, financial resources, investment experiences, and life circumstances.
3. Investors expect to earn higher rates of return when they invest in riskier assets.
4. Because inflation reduces purchasing power over time, the real return on a financial asset is lower than its nominal return.
5. The prices of financial assets change in response to market conditions, interest rates, company performance, new information, and investor demand.
6. When making diversification and asset allocation decisions, investors consider their risk tolerance, goals, and investing time horizon.

Handout 5.2.1: Save, Invest, or Both?

Part 1 Instructions: Marcus has worked full-time for three years and wants to begin saving for retirement at age 65. Use the compound interest calculator to compare the options below. Determine the balance in Marcus's account after 40 years for each option, and round your answers to the nearest whole dollar.

Nerdwallet Compound Interest Calculator:
https://www.nerdwallet.com/banking/calculators/compound-interest-calculator

Option 1: Savings Account Only

Marcus makes an initial deposit of $1,000 and contributes $100 per month for the next 40 years. He chooses to deposit his money into a savings account which earns 2% interest annually.

What is the balance of Marcus's retirement account after 40 years?

Option 2: Stock Market Only

Marcus makes an initial deposit of $1,000. His contributions are $100 a month for the next 40 years. He chooses to invest in the US stock market with a 6.5% return annually.

What is the balance of Marcus's retirement account after 40 years?

Option 3: Savings Account and Stock Market

Marcus decides to save *and* invest for retirement. He makes an initial deposit of $500 into a savings account that earns 2% interest annually and $500 into the U.S. stock market, which earns an average annual return of 6.5%. For the next 40 years, he contributes $50 per month to his savings account and $50 per month to his investment account.

What is the combined balance of Marcus's retirement accounts after 40 years?

Part 2: Which option would you recommend for Marcus and why?

Handout 5.2.2: Types of Financial Risk (page 1 of 2)

Instructions: Read about the five types of financial risks investors face in Part 1. Then, match each news headline to the type of investment risk it best illustrates in Part 2. Each type of risk will be used once.

Part 1: Types of Financial Risk

Capital-Loss Risk is the loss of part or all of an investment. When a saver buys an asset hoping for a capital gain, the market price of the asset can fall, resulting in a capital loss. **Example:** You buy a stock for **$50** per share, but later sell it for **$35** per share.
Default Risk is when the borrower fails to make full and timely payments. When a saver loans money or buys a bond, the borrower might not repay the original amount or the promised interest. **Example:** A company goes bankrupt and cannot repay the money it borrowed from bondholders.
Fraud Risk is the possibility of losing money because of a scam or dishonest investment. Fraudsters often promise high returns with little or no risk. Before investing, it is important to research the opportunity and verify the information. **Example:** Someone promises to double your money in a month, but the investment turns out to be fake.
Inflation Risk is the possibility that your money will lose purchasing power over time because prices increase. If your savings or investment earns a lower rate of return than inflation, your money will buy less in the future than it does today. **Example:** Your savings earn **2%** interest, but prices increase by **4%** over the same year.
Liquidity risk is the possibility that an investment cannot be sold easily. When a saver buys an asset for an investment, it must eventually be sold to realize the capital gain. Market conditions affect the saver's ability to sell the asset. **Example:** You need cash quickly, but it could take several months to find a buyer for your house.

Handout 5.2.2: Types of Financial Risk (page 2 of 2)

Part 2: News Headlines

News Headline 1: MusicStream Reports Data Breach; Thousands of Customers Lose Money to Scammers Which type of financial risk does this illustrate?
News Headline 2: Rising Prices Make Groceries and Gas More Expensive Than Last Year Which type of financial risk does this illustrate?
News Headline 3: Collector Struggles to Sell Rare Sneakers Despite Lowering the Price Which type of financial risk does this illustrate?
News Headline 4: BrightFuture Energy Declares Bankruptcy; Bondholders May Not Receive Full Repayment Which type of financial risk does this illustrate?
News Headline 5: TechNova Inc. Shares Drop 35% After Reporting Lower-Than-Expected Sales Which type of financial risk does this illustrate?

Station 1: Darius, 18, College Freshman

Darius spent every summer during high school mowing lawns. He saved the money to pay for his living expenses during college. He decided to keep his money in a certificate of deposit (CD) at his bank, which earned 1% interest. He expected to have enough money to cover two years of living expenses. However, when he arrived at college, he realized that food, rent, and many other costs were much higher than he had anticipated. Prices rose faster than the value of his savings.

Station 2: Juliana, 42, Data Scientist

Several years ago, Juliana purchased eight acres of undeveloped land. She planned to keep it as an investment, hoping its value would increase so that she could sell it and earn a profit.

Several years later, Juliana needed a costly surgery but did not have enough savings to pay for the procedure. Fortunately, the land had substantially increased in value and she decided to sell it. She found a development company that told her market conditions would make it difficult to sell the land at full value in the next six months. Juliana needed the money immediately, so the company offered to buy the land at a deep discount.

Station 3: Riley, 28, Certified Nursing Assistant

Riley decided to buy $1,000 worth of stock in a company that makes very popular products. He believed that the company would grow and be profitable for the next several years.

Several months later, he found out that the company had lost a major case in court and would no longer be able to sell its most popular product. When Riley decided to sell all his stock, he found out that his shares were worth $400.

Station 4: Kai, 32, College Student

Kai's friend Nina had an idea of creating a photography business. She was attending college part time, majoring in photojournalism, and wanted to earn some extra money. She owned her camera equipment but needed $750 to pay for social media marketing. She asked Kai for a loan and promised to pay him back the $750 and give him 25 percent of her profits from the first semester.

Nina booked three sessions during the first few months of the semester. However, when her advertising ran out, she no longer received requests from potential clients. She gave Kai 25 percent of her profits from the three sessions, but she couldn't repay the $750 loan.

Station 5: Elena, 19, Retail Sales Associate

Elena saw an online advertisement for a cryptocurrency investment club that promised to double members' money in just two months. The website displayed many testimonials, polished charts, and screenshots of large payouts. After depositing her savings, Elena was told she needed to pay additional "release fees" before she could withdraw any money. When she refused, the company stopped responding, and her account dashboard disappeared.

Station 6: Naomi, 35, Restaurant Manager

Naomi put $10,000 into a five-year certificate of deposit (CD) because it paid a higher interest rate than a savings account. Two years later, she needed the money for unexpected medical expenses. She could access the money, but only by paying a large early withdrawal penalty.

Certificate of Deposit (CD): A savings product offered by banks and credit unions that typically pays a higher interest rate than a regular savings account in exchange for leaving your money deposited for a set period of time.

Station 7: Matthew, 27, Graphic Designer

Matthew invested $8,000 in shares of a company that developed smartphone apps. He believed the company would continue growing because many people used its products. A year later, a new competitor released a more popular app, and the company's profits fell sharply. As a result, the value of Matthew's investment dropped significantly.

Handout 5.2.3: Gallery Walk Responses

Types of Financial Risk - Gallery Walk

Instructions: Visit each gallery walk station with your group. Read the scenario, determine the type of financial risk the investor faces, and explain your reasoning using evidence from the scenario.

Station	Type of Financial Risk	Explain Your Reasoning
Station 1		
Station 2		
Station 3		
Station 4		
Station 5		
Station 6		
Station 7		

Handout 5.2.5: Assessment (page 1 of 2)

Part 1: Financial Advice Worth Taking?

Instructions: Read each piece of financial advice below and determine whether you agree or disagree. If you disagree, rewrite the statement to make it accurate.

Statement 1: Everyone should invest all of their money because investing always earns more than saving. Agree or Disagree? If you disagree, rewrite the statement to make it accurate:
Statement 2: If you plan to use your money next year, investing in the stock market is usually your best option because it has higher potential returns. Agree or Disagree? If you disagree, rewrite the statement to make it accurate:
Statement 3: The best investment is the one that earns the highest return. Agree or Disagree? If you disagree, rewrite the statement to make it accurate:
Statement 4: Putting all of your money into one investment is a good strategy if you think it will perform well. Agree or Disagree? If you disagree, rewrite the statement to make it accurate:

Handout 5.2.5: Assessment (page 2 of 2)

Statement 5: Before investing, it's important to research the investment instead of believing promises of high returns with little or no risk. Agree or Disagree? If you disagree, rewrite the statement to make it accurate:
Statement 6: Two people with the same amount of money should always make the same saving and investing decisions. Agree or Disagree? If you disagree, rewrite the statement to make it accurate:

Part 2: Reflection

What is the single most important piece of advice you would give someone who is deciding whether to save, invest, or do both? Explain your reasoning.