Lesson 8

Save and Invest: The Rise and Fall of Risk and Return

Lesson Description

This lesson begins with a brainstorming session in which students identify the risks involved in playing sports or driving a car. From these responses, the concept of risk is defined as the possibility of a loss or injury. After narrowing the discussion to the concept of financial risk, the possibility of a monetary loss, students work in pairs to analyze case studies to identify the risk factors faced by saver or investor. The lesson concludes with a chart that allows students to evaluate various financial assets for the potential risks and rewards.

National Standards in K–12 Personal Finance Education (www.jumpstart.org)

Saving and Investing
Standard 3: Evaluate investment alternatives.

Instructional Objectives

Students will:

- Explain the relationship between risk and reward.
- Describe different types of financial risk.
- Analyze a saving or investing scenario to identify financial risk.
- Evaluate various financial assets to identify potential risks and rewards.

Time Required

- One 50-minute class period

Materials Required

- Class set of *Building Wealth* books
- Copies of classroom visuals
  - *Visual 1: Everyday Risks*
  - *Visual 2: Making Money from Investing Money*
  - *Visual 3: Not All Investments Make Money—Understanding Financial Risks*
  - *Visual 4: Types of Financial Risk*
  - *Visual 5: How Much Risk Can You Afford to Take?*
- Copy of the following activity, cut into four sections
  - *Activity 1: Risk and Return Case Studies*
- Copies of the following handouts for each student
  - *Handout 1: Getting a Handle on Financial Assets*
  - *Handout 2: Risk and Return of Wealth-Creating Assets*

Procedure

1. Display *Visual 1: Everyday Risks*. Use the following questions to introduce the concept of risk. Record

student answers on the visual or on the board.

- How would you describe the risks of playing sports?
  Student answers will vary but might include injury, death and defeat.
- How would you describe the risks of driving?
  Student answers will vary but might include wrecks, repairs, tickets and higher gas prices.
- Does the person playing sports or driving the car know that these outcomes are possible? Does the person know that they will happen?
  While they know that negative outcomes are possible, most people think that it will not happen to them.

Tell students that risk is the possibility of loss or injury.

2. Display *Visual 2: Making Money from Investing Money* and go over the information. Use the following questions to review the concept of wealth-creating assets.
   - Why does a saver purchase wealth-creating assets?
     They hope that the asset will grow in value or provide a return.
   - What are some examples of wealth-creating assets?
     Student answers will vary but might include stocks, bonds, art or collectibles, and houses or other real estate.
   - When an asset grows in value and is sold for more than its purchase price, what is the profit called?
     Capital gain
   - What are two types of return from wealth-creating assets?
     Some stock ownership provides a dividend payment. Bank deposits and bond ownership provide interest income.

   Display *Visual 3*: *Not All Investments Make Money: Understanding Financial Risk*
   Read the definition of financial risk and emphasize the following:
   - The Risk–Return relationship is a positive or direct relationship.
   - Generally the higher the risk of losing money, the higher the expected return.
   - The lower the risk of losing money, the smaller the expected return.

   Ask students:
   - Why would an investor be willing to take a greater risk?
     The possibility of a greater reward.
   - What would be the unintended outcome of owning a wealth-creating asset?
     The asset will fail to produce a return or will lose value over time

   To reinforce the visual, ask students to read BW, page 11, *Understand the Risk–Expected Return Relationship*.

3. Display *Visual 4: Types of Financial Risk*. Tell students that there are four specific types of financial risk. Read the four definitions.

4. Divide students into four groups. Distribute one section from *Activity 1: Risk and Return Case Studies* to each group. Have each group work together to identify the specific type of financial risk that is faced by the saver in their case study.

5. Have a spokesperson from each group read the case study out loud and explain the type of financial risk that is demonstrated. Use information on the visual and the suggested answers to guide the discussion.

6. Display *Visual 5: How Much Risk Can You Afford to Take?* Review the information on the visual. Tell students that every person might answer these questions differently.

Closure

7. Review the major concepts of the lesson using the following questions:
   - What outcomes does a saver or investor want?
     Growth in value and/or a return
   - What are the four types of risk that a saver might face?
     Default, capital loss, inflation and liquidity
   - What is the relationship between risk and reward?
     It is positive—the greater the risk, the greater the potential reward.
     The lower the risk, the lower the potential reward.
   - What three things might you want to consider when deciding the amount of risk you want to take on an investment?
     Financial goals, time horizon and financial risk tolerance.

8. Divide the class into groups of five. Distribute *Handout 1: Getting a Handle on Financial Assets*. Have students prepare definitions using the *Building Wealth* glossary and BW, pages 12–14, "Tools for Savings" and "Tools for Investing."

   With the entire class, go over the definitions, identifying rewards and risk of each asset.

   Note: If time permits, pin the word on the back of a student. The student has to ask yes-no questions to the rest of the class to identify the word.

Assessment

9. Distribute *Handout 2: Risk and Return of Wealth-Creating Assets*. Allow students to complete the chart independently.

Lesson 8 – Save and Invest: The Rise and Fall of Risk and Return

Visual 1: Everyday Risks

What risks do you take when you play sports?	What risks do you take when you are driving?

Visual 2: Making Money From Investing Money

Wealth-creating assets are possessions that

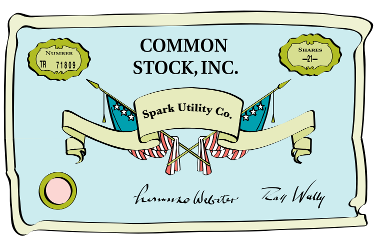
1. Increase in value over time

   or

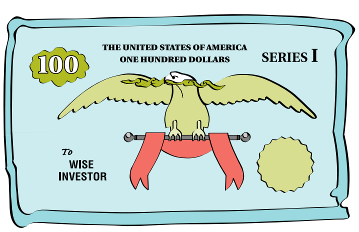
2. Provide a return.

Let's Review the Vocabulary

Increase in value over time
Capital gain, the amount by which the selling price of an asset exceeds the purchase price.



Provide a return
Dividend, portion of a company's profit paid to stock owners

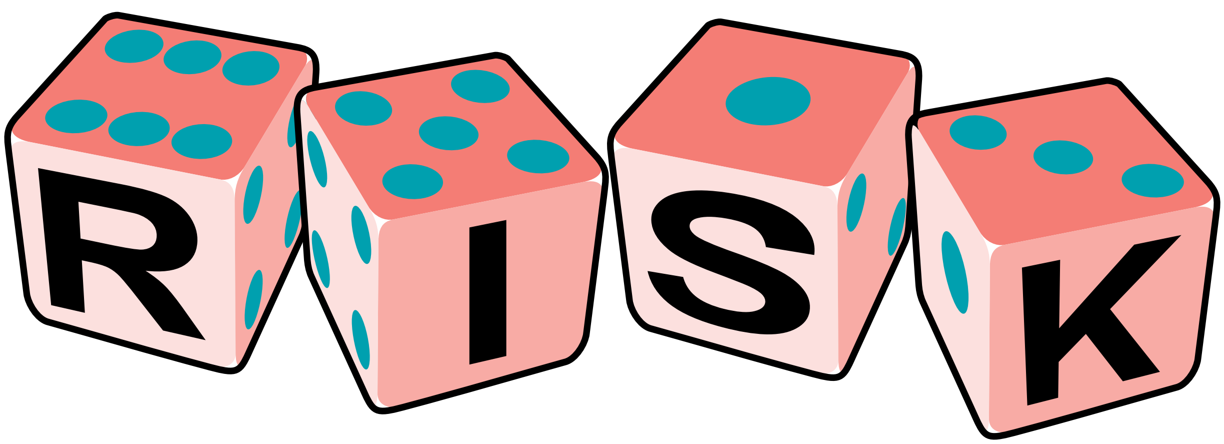


Interest, fee charged by a lender to a borrower for the use of the borrowed money.

Visual 3: Not All Investments Make Money: Understanding Financial Risk

Financial Risk

The possibility that an asset will fail to produce a return or will lose value over time.



Risk and Return Have a Positive Relationship

Risk ↓ Reward ↓

Risk ↑ Reward ↑

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Visual 4: Types of Financial Risk

Risk of default

When a saver loans money or buys a bond, the borrower might not repay the original amount or the promised interest.

Risk of capital loss

When a saver buys an asset hoping for a capital gain, the market price of the asset can fall, resulting in a capital loss.

Risk of inflation

When a saver earns a rate of return that is less than the rate of inflation, purchasing power is lost.

Risk of liquidity

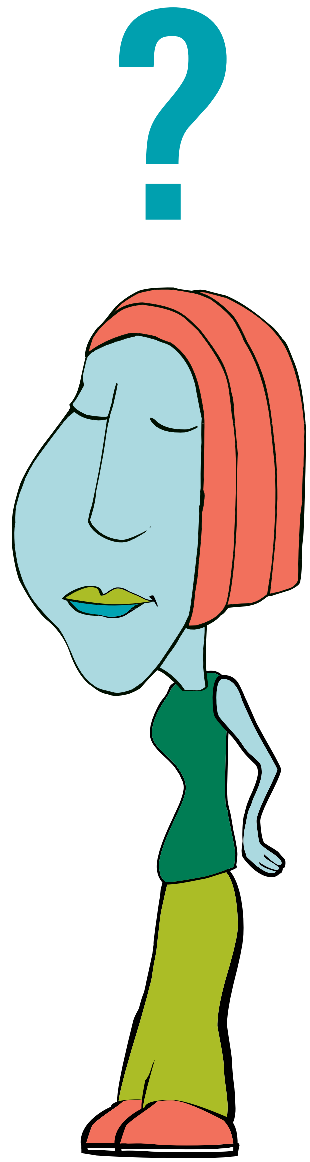
When a saver buys an asset for an investment, the asset must be sold to realize the capital gain. Market conditions affect the saver's ability to sell the asset.

Visual 5: How Much Risk Can You Afford to Take?

Here are some things to think about when determining the amount of risk that best suits you.

Financial goals

How much money do you want to accumulate over a certain period of time? Your investment decisions should reflect your wealth-creation goals.



Time horizon

How long can you leave your money invested? If you will need your money in one year, you may want to take less risk than you would if you won't need your money for 20 years.

Financial risk tolerance

Are you in a financial position to invest in riskier alternatives? You should take less risk if you cannot afford to lose your investment or have its value fall.

Lesson 8 – Save and Invest: The Rise and Fall of Risk and Return

Activity 1: Risk and Return Case Studies

Case 1

Several years ago, Chelsea was given a painting by a famous artist. She planned to keep it as an investment, hoping its value would increase so that she could sell it and make a profit. Several years later, Chelsea had costly emergency surgery, and she did not have enough money in her savings to pay for the procedure. Fortunately, the painting had substantially increased in value, and she decided to sell it. She found a reputable art dealer who told her that market conditions would make it difficult to sell the painting for its full value in the next six months. Chelsea needed the money immediately, so the art dealer offered to buy the painting at a deep discount.

How would you describe the financial risk that Chelsea faces?

Case 2

Paul's friend Gabby had an idea of creating a photography service that went to school functions, such as football games, pep rallies and dances, to take candid pictures. The pictures would be available to purchase the following week. She needed $300 to buy additional equipment and start an advertising campaign, so she asked Paul for a loan. She promised to pay him back the $300 and give him 25 percent of her profits from the first semester. Gabby sold a few pictures the first week of school but quit going to events to take pictures. She can't repay the loan, and there are no profits. Paul lost $300.

How would you describe the financial risk Paul faces?

Case 3

Mike spent every summer during high school mowing yards. He saved the money to pay for his living expenses during college. He decided to keep his money in certificates of deposit at his bank. The deposits earned 3 percent interest. He anticipated that he would have enough money for two years of living expenses. When he got to his college town, he realized that food and rent, along with many other prices, were much higher than he had originally estimated. Prices rose faster than the value of his savings.

How would you describe the financial risk Mike faces?

Case 4

Jennifer decided to buy $1,000 worth of stock in a company that makes very popular products. She believed that the company would grow and be profitable for the next several years. Several months later, she found out that the company lost a major case in court and will no longer be able to sell its most popular product. Jennifer decided to sell all her stock. When she called her stockbroker, she found out that her shares were worth $400.

How would you describe the financial risk that Jennifer faces?

Activity 1: Risk and Return Case Studies

Suggested Answers

Case 1

Several years ago, Chelsea was given a painting by a famous artist. She planned to keep it as an investment, hoping its value would increase so that she could sell it and make a profit. Several years later, Chelsea had costly emergency surgery, and she did not have enough money in her savings to pay for the procedure. Fortunately, the painting had substantially increased in value, and she decided to sell it. She found a reputable art dealer who told her that market conditions would make it difficult to sell the painting for its full value in the next six months. Chelsea needed the money immediately, so the art dealer offered to buy the painting at a deep discount.

How would you describe the financial risk that Chelsea faces? ***She cannot sell the painting for its full value as quickly as she needs to do so. Therefore, she faces a liquidity risk.***

Case 2

Paul's friend Gabby had an idea of creating a photography service that went to school functions, such as football games, pep rallies and dances, to take candid pictures. The pictures would be available to purchase the following week. She needed $300 to buy additional equipment and start an advertising campaign, so she asked Paul for a loan. She promised to pay him back the $300 and give him 25% of her profits from the first semester. Gabby sold a few pictures the first week of school but quit going to events to take pictures. She can't repay the loan, and there are no profits. Paul lost $300.

How would you describe the financial risk Paul faces? ***Paul has lost the money because Gabby cannot repay him, so he faces the risk of default.***

Case 3

Mike spent every summer during high school mowing yards. He saved the money to pay for his living expenses during college. He decided to keep his money in certificates of deposit at his bank. The deposits earned 3% interest. He anticipated that he would have enough money for two years of living expenses. When he got to his college town, he realized that food and rent, along with many other prices, were much higher than he had originally estimated. Prices rose faster than the value of his savings.

How would you describe the financial risk Mike faces? ***Since prices have risen and Mike has lost purchasing power, he faces the risk of inflation.***

Case 4

Jennifer decided to buy $1,000 worth of stock in a company that makes very popular products. She believed that the company would grow and be profitable for the next several years. Several months later, she found out that the company lost a major case in court and will no longer be able to sell its most popular product. Jennifer decided to sell all her stock. When she called her stockbroker, she found out that her shares were worth $400.

How would you describe the financial risk that Jennifer faces? ***The stock has declined in value, so if Jennifer sells the shares today, she will face the risk of a capital loss.***

Name:____ Date:____________

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Handout 1: Getting a Handle on Financial Assets

Give a definition of each of the following assets. Use *Building Wealth* glossary or pages 12–14 to complete.

Asset	Definition
Savings account	
Money market accounts	
Certificates of deposit (CDs)	
Corporate bonds	
Municipal bonds	
Savings bonds	
Treasury bonds, bills and notes	
Stocks	
Mutual funds	

Name:____ Date:____________

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Handout 2: Risk and Return of Wealth-Creating Assets

Identify potential rewards and risks associated with each financial asset and list them in the appropriate column.

Reward Interest, Dividend, Capital Gain	**Financial Assets**	**Risk** Default, Capital Loss (falling market price), Inflation (lost purchasing power), Liquidity
	Savings account	
	Money market accounts	
	Certificates of deposit (CDs)	
	Corporate bonds	
	Municipal bonds	
	Savings bonds	
	Treasury bonds, bills and notes	
	Stocks	
	Mutual funds	
	House and/or real estate	
	Your own business	
	Collectibles such as rare coins, antiques or art	

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Handout 2: Risk and Return of Wealth-Creating Assets

Suggested Answers

Reward Interest, Dividend, Capital Gain	**Financial Assets**	**Risk** Default, Capital Loss (falling market price), Inflation (lost purchasing power), Liquidity
Interest	**Savings account**	Inflation
Interest	**Money market accounts**	Inflation
Interest	**Certificates of deposit (CDs)**	Inflation and liquidity
Interest Capital gains	**Corporate bonds**	Inflation, liquidity and default
Interest Capital gains	**Municipal bonds**	Inflation, liquidity and default
Interest	**Savings bonds**	Inflation and liquidity
Interest	**Treasury bonds, bills and notes**	Inflation (if interest not indexed to inflation) and liquidity
Capital gains Dividend income	**Stocks**	Liquidity, default, inflation and capital loss
Capital gains Dividend income	**Mutual funds**	Liquidity and capital loss
Capital gains	**House and/or real estate**	Liquidity and capital loss
Capital gains Dividends	**Your own business**	Liquidity, default (if company goes bankrupt) and capital loss
Capital gains	**Collectibles such as rare coins, antiques or art**	Liquidity and capital loss