

Building **Wealth**

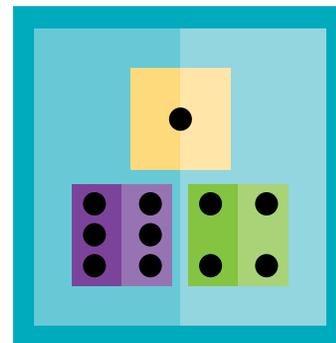
In the Classroom

Lesson 7

Save and **Invest**—Risk and Return



Federal Reserve
Bank of Dallas



Instructional objectives

You will:

- Explain the relationship between risk and return.
- Describe different types of financial risk.
- Analyze investment scenarios to identify types of financial risk.
- Analyze the impact of inflation on personal financial decision-making.
- Evaluate investment goals as they relate to risk tolerance.

**What are the risks of playing
a sport or driving a car?**

Risk



Risk is the possibility of loss or injury.



Financial risk is the possibility that an asset will fail to produce a return or will lose value over time.

Types of assets



An **asset** is anything you own that has commercial or exchange value.

- Savings
- Land
- Computers
- Vehicles

Types of assets



Wealth-building assets

Possessions that generally increase in value over time.

Examples: stocks, bonds, real estate and savings accounts.



Depreciating assets

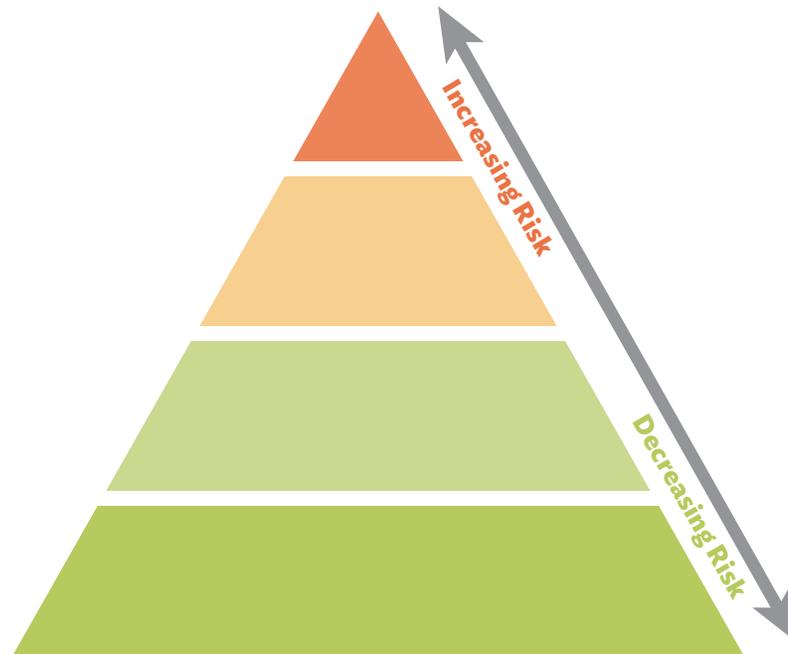
Possessions that decrease in value over time.

Examples: cars, televisions, phones and laptop computers.

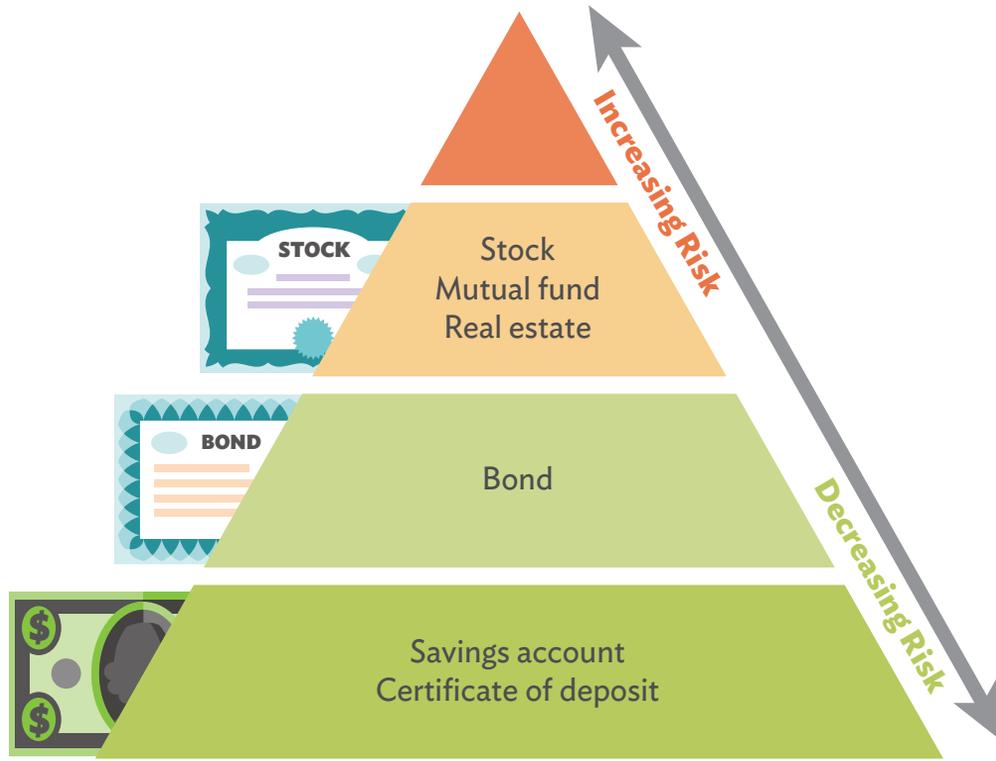
Degree of risk

Where do the wealth-building assets fit into the pyramid?

- Stock.
- Certificate of deposit.
- Mutual fund.
- Bond.
- Savings account.
- Real estate.



Degree of risk





Types of Financial Risk

While people invest with the hopes of making money, they face different types of financial risk.

Types of risk



Capital-loss risk

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.



Default risk

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.

Types of risk



Inflation risk

The rate of return is less than the rate of inflation.

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



Liquidity risk

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.

What type of risk?

Darius 18, College Freshman

Darius 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 a certificate of deposit at his bank. The deposits earned 1% 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, rent and many other costs were much higher than he had originally estimated. Prices rose faster than the value of his savings.

What type of risk does Darius face?

Capital-loss risk

Default risk

Inflation risk

Liquidity risk

Darius faces the risk of inflation.



Inflation risk

Since prices have risen and Darius has lost purchasing power, he faces the risk of inflation.



If Darius earned 1% interest (nominal interest rate) on his certificate of deposit and inflation was 2%, what was the real rate of interest Darius earned while keeping his money in a CD?

Use the formula below to solve for real interest rate:

$$\text{Nominal interest rate} - \text{Inflation} = \text{Real interest rate}$$

Answer

$$1\% - 2\% = -1\%$$

Nominal interest rate - **Inflation** = **Real interest rate**

What type of risk?

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 make a profit.

Several years later, Juliana needed 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.

What type of risk does Juliana face?

Capital-loss risk

Default risk

Inflation risk

Liquidity risk

Juliana faces the risk of liquidity.



Liquidity risk

Juliana cannot sell the land for its full value as quickly as needed. Therefore, she faces liquidity risk.

What type of risk?

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.

What type of risk does Riley face?

Capital-loss risk

Default risk

Inflation risk

Liquidity risk

Riley faces the risk of capital loss.



Capital-loss risk

The stock has declined in value, so if Riley sells the shares today, he will face the risk of capital loss.

What type of risk?

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 make 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.

What type of risk does Kai face?

Capital-loss risk

Default risk

Inflation risk

Liquidity risk

Kai faces the risk of default.

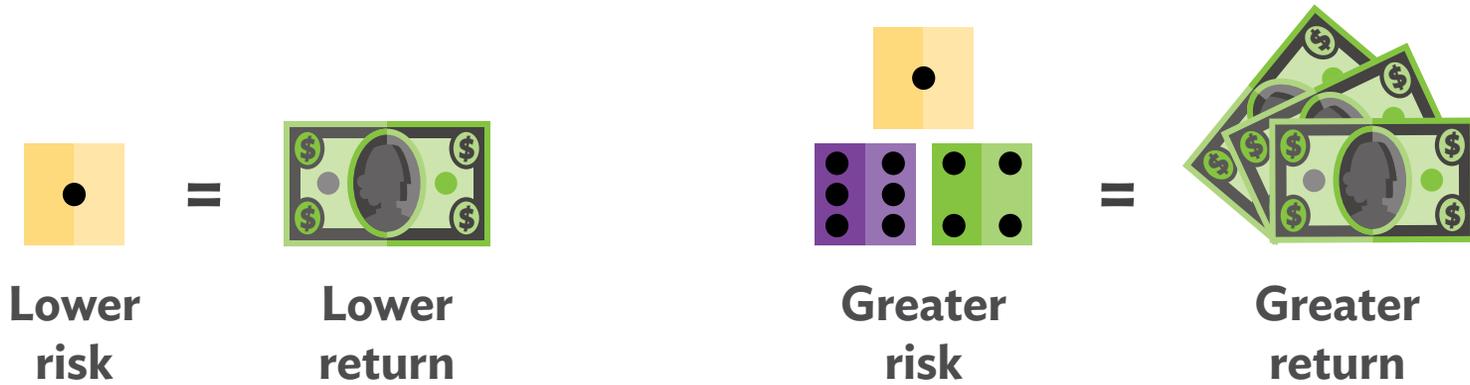


Default risk

Kai has lost the money because Nina cannot repay him, so he faces the risk of default.

**How much risk are you
willing to take?**

Risk–return relationship

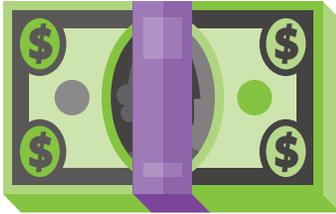




How Much Risk Can You Afford to Take?

The amount of risk you can afford to take is often related to your financial goals, risk tolerance and time horizon.

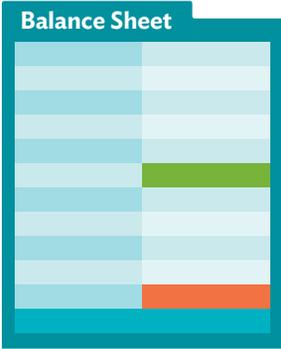
Financial goals



How much money do you want to accumulate over a certain period of time?

Your investment decisions should reflect your wealth-creation goals.

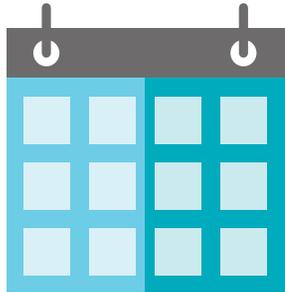
Risk tolerance



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.

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 if you will need your money in 20 years.



Return

Is the risk worth the return?

Return

The profit or loss from an investment.



Dividend

A share of profits paid to a stockholder.



Interest payment

The regular rate of return paid to the saver/investor.



Capital gain

The increase in value of an asset (such as stock or real estate) between the time it is bought and the time it is sold.



Try it on your own

Use Handout 2 to identify rewards and risks of financial assets.

Name _____ Date _____



Lesson 7—Handout 2

Risk and Return of Wealth-Building Assets



Try it on your own

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

Return Interest, dividend, capital gain	Financial asset	Risk Default, capital loss (falling market price), inflation (lost purchasing power), liquidity
	Savings account	
	Money market account	
	Certificate of deposit (CD)	
	Corporate bond	
	Municipal bond	
	Savings bond	
	Treasury bond, bill and note	
	Stock	
	Mutual fund	
	House and/or real estate	
	Your own business	
	Collectibles such as rare coins, antiques or art	

Summarize learning objectives

Risk is the possibility of loss or injury.

Financial risk is the possibility that an asset will fail to produce a return or will lose value over time.

Default risk is when the borrower fails to make full and timely payments.

Capital-loss risk is the loss of part or all of an investment.

Summarize learning objectives

Inflation risk is when the rate of return is less than the rate of inflation.

Liquidity risk is when an investment cannot be sold quickly at an acceptable price.

The ***amount of risk you can afford*** to take is often related to your financial goals, risk tolerance and time horizon.

Summarize learning objectives

Risk–return relationship assumes a tradeoff between risk and return. The greater the risk, the greater the potential return. The lower the risk, the lower the potential return.

Return is the profit or loss from an investment.

Investment role-play

Use Assessment 1 to prepare your role-play presentation.

You will assume the role of a certified financial planner working for Building Wealth Investment Corp. and prepare a presentation with recommendations for adjusting your client's retirement portfolio to meet the client's retirement goals and risk profile.

- Review your clients' needs and risk tolerance.
- Pick either Reyna or Martin.
- Use Handout 3: Building a Portfolio with Building Wealth Funds to balance the risk and return to meet your client's goals.
- Use the template starting on the second page of Assessment 1 to outline and prepare your presentation.

Name _____ Date _____



Lesson 7—Assessment 1

Investment Role-Play

Role-play scenario

You will assume the role of a certified financial planner working for Building Wealth Investment Corp. As an investment adviser, you advise your clients on retirement and investment planning, which can include asset selection, allocation and diversification. Next week, you have a meeting scheduled with two of your clients, Reyna and Martin. During this meeting, you will present recommendations for adjusting their retirement portfolios to meet their retirement goals and risk profile.

Instructions

- Review your clients' needs and risk tolerance.
- Pick either Reyna or Martin and prepare a presentation for adjusting the client's investment portfolio.
- Use Handout 3: Building a Portfolio with Building Wealth Funds to balance the risk and return to meet your client's goals.
- Use the template starting on the second page of Assessment 1 to outline and prepare your presentation.

Reyna, 45

Years to retirement: 20

Risk tolerance: Moderate—balanced investments between risky and safe.

Investment goals: Reyna began saving for retirement in her late 30s. She would like to retire by the age of 65. However, she is not on track to reach that goal given the current projected growth of her investment portfolio. Reyna is willing to take more risk in the market to meet her goals. Develop a plan to adjust the allocation of Reyna's investment portfolio to meet her needs and risk tolerance. Below is the current allocation of her investment portfolio.

BWLCF 5% BWMCF 5% BWSCF 5%
BWIIF 70% BWBIF 15%

Martin, 62

Years to retirement: 3

Risk tolerance: Conservative—prioritize avoiding losses above making gains.

Investment goals: Martin has enough money set aside to retire by the age of 65. However, he is concerned about fluctuations in the market during the next three years and how those fluctuations might affect his money saved for retirement. Develop a plan to adjust the allocation of Martin's investment portfolio to meet his needs and risk tolerance. Below is the current allocation of his investment portfolio.

BWLCF 25% BWMCF 25% BWSCF 5%
BWIIF 10% BWBIF 35%

Source

SLIDE

29

Definition of return

consumerfinance.gov/consumer-tools/educator-tools/youth-financial-education/glossary/

Building **Wealth**

In the Classroom

Up Next: Lesson 8

Build Credit—Understanding Reports and Scores



Federal Reserve
Bank of Dallas



Have you explored [buildingwealth.org](https://www.buildingwealth.org)?



About Building Wealth

Resources ▾

Online Guide

Order Building Wealth

Acknowledgments

Follow Us 



Building Wealth

A Beginner's Guide to Securing Your Financial Future

Building Wealth is a personal finance education resource that presents an overview of wealth-building strategies for **consumers**, **community leaders**, **teachers** and **students**.

Follow us
@Budget2Save




For Consumers

I want to learn how to build wealth for myself and my family.

[READ MORE >>](#)



For Community Leaders

I lead a group of adults interested in improving our personal finance skills.

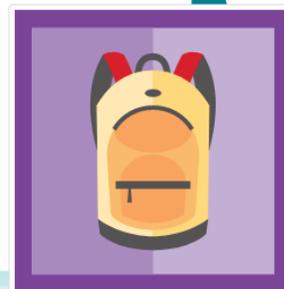
[READ MORE >>](#)



For Teachers

I teach financial education to high school or college students.

[READ MORE >>](#)



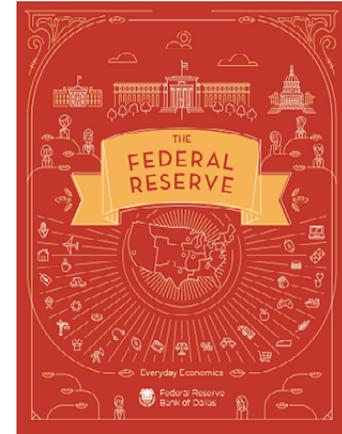
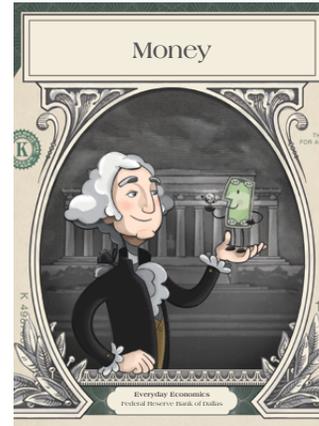
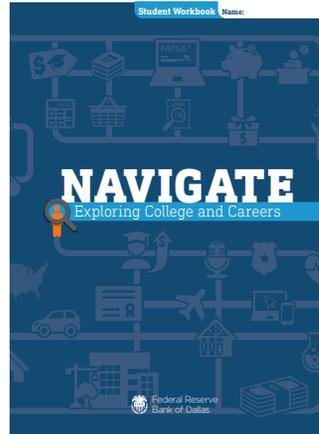
For Students

I am a student and want to learn how to create personal wealth and meet my financial goals.

[READ MORE >>](#)



Explore Dallas Fed Economic Education Resources



@dallasfed

dallasfed.org/educate



Federal Reserve
Bank of Dallas