There Is No Free Lunch in Investing

LESSON DESCRIPTION AND BACKGROUND

Risk is inherent in all investments. Some risks are ones investors cannot control. Other risks can be managed. The key is to develop a risk-reward ratio with which you are comfortable. The greater the risk, the higher the potential reward. Given that relationship, there is no free lunch in investing. Investors who choose low risk may earn meager returns. Investors who seek higher returns through high-risk investments may suffer big losses. In this lesson, the students learn about five types of risk, and they compare the risks and rewards associated with several frequently-used investment vehicles. The lesson provides an overview of the modern investment world.

Lesson 21 correlates with national standards for economics and personal finance as shown in Tables 1-2 in the introductory section of the publication.

ECONOMIC AND PERSONAL FINANCE CONCEPTS

- Certificate of deposit (CD)
- Financial risk
- Fraud risk
- Inflation risk
- Liquidity risk
- Market risk
- Money market mutual funds
- Nominal rate of return
- Real estate
- Real rate of return
- Savings account
- Stock index funds
- Stock mutual funds
- Stocks
- U.S. government savings bonds

OBJECTIVES

At the end of this lesson, the student will be able to:

- Describe five types of investment risk.
- Describe the relationship between investment risk and investment reward.
- Distinguish between **real** and **nominal rates of return**.
- Describe the characteristics of several investments, including **savings accounts**, **U.S. government savings bonds**, **stocks**, **mutual funds**, and **real estate**.
- Analyze the pyramid of risk and reward.
- Compare and contrast the risks and rewards of several types of investments.

TIME REQUIRED

Two 45-minute class periods

MATERIALS

- A transparency of **Visual 21.1** and **21.2**
- A copy for each student of **Exercise 21.1** and **21.2** from the *Student Workbook*
- Several sheets of paper

ADDITIONAL RESOURCES

To download visuals, find related lessons, correlations to state standards, interactives, and more visit http://fffl.councilforeconed.org/9-12/lesson21.

PROCEDURE

1. Introduce the lesson's focus on the risks associated with various types of investment. Explain that people who invest wisely usually benefit from their investments in the long run. However, all investments are not created equal.

2. Display **Visual 21.1**. Discuss the visual—clarifying, as necessary, the relationship between risk and reward (investment return).

3. Give each student a copy of **Exercise 21.1** from the *Student Workbook*. Have the students read the exercise and answer the questions at the end. When they have finished, discuss the answers.

a. What is the annual rate of return on an investment? ***(The extra money you receive in one year on your investment, divided by the amount of the original investment, expressed as a percentage. Note that when returns are calculated with greater frequency than once per year—for example, quarterly earnings—they are commonly converted to a yearly, or annualized, return.)***

b. If you earn $40 a year on a $500 investment, what is the annual rate of return? ***(8 percent [$40 ÷ $500 = .08 or 8 percent])***

c. What is the relationship between the expected rate of return and the investment risk? ***(The greater the investment risk, the greater the expected rate of return.)***

d. If the annual nominal rate of return on an investment is 10 percent and the annual rate of inflation is 3 percent, what is the real rate of return? ***(7 percent [10 percent – 3 percent = 7 percent])***

e. True, false, or uncertain, and why? "The Internet is the future of our economy. The prices of Internet stocks are bound to go up." ***(Uncertain or false. Investors could change their attitudes toward Internet stocks. Companies that rely on the Internet may prove to be unprofitable, decreasing the value of their stock.)***

f. True, false, or uncertain, and why? "This investment pays 30 percent a year and is perfectly safe. I put my mother's money into this investment." ***(False. Investments with high potential rates of return always involve risk.)***

4. Display **Visual 21.2**. Discuss the visual—clarifying as necessary why particular investments are placed at particular positions on the pyramid of risk and reward.

5. Divide the class into groups of three and distribute a copy of **Exercise 21.2** to each student. Have the students, working in groups, use the information in the description of each investment to rank its risk and reward. They should also write a brief explanation of the reasons for their ratings.

6. When the students have completed **Exercise 21.2**, discuss each type of investment with the class. When groups differ, ask group members to explain the reasons for their rankings. Possible answers (denoted by bold type and asterisks) are provided below. The key is that the students understand the risk-reward relationship.

Mattress

Financial Risk	1	2	**3***
Market Risk	**1***	2	3
Liquidity Risk	**1***	2	3
Inflation Risk	1	2	**3***
Reward	**1***	2	3

Why? ***(The money could be stolen (financial risk). You can get it any time you want, but you don't earn a rate of return. If there is inflation, your real rate of return will be negative.)***

Regular (Passbook) Savings Account

Financial Risk	**1***	2	3
Market Risk	**1***	2	3
Liquidity Risk	**1***	2	3
Inflation Risk	1	**2***	3
Reward	**1***	2	3

Why? ***(You will not lose your money, but the interest rates are low. Liquidity is high; you can get your money out at any time. Interest rates may not keep pace with inflation.)***

Certificate of Deposit (CD)

Financial Risk	**1***	2	3
Market Risk	1	**2***	3
Liquidity Risk	1	**2***	3
Inflation Risk	1	**2***	3
Reward	1	**2***	3

Why? ***(Insured accounts involve little financial risk. Banks usually pay a higher rate of interest on longer-term deposits. Deposits can be withdrawn at any time, but there is a penalty for withdrawal before the maturity date. Longer-term CDs do come with some market risk—the risk that the depositor will be locked into an interest rate that is lower than current market rates.)***

Money Market Mutual Funds

Financial Risk	**1***	2	3
Market Risk	**1***	2	3
Liquidity Risk	**1***	2	3
Inflation Risk	1	**2***	3
Reward	**1***	2	3

Why? ***(These mutual funds are safe. Even though they are not insured, they carry little financial risk. Earnings are sometimes higher than with savings accounts. You can get your money anytime.)***

Stocks

Financial Risk	1	**2***	3
Market Risk	1	2	**3***
Liquidity Risk	**1***	2	3
Inflation Risk	1	**2***	3
Reward	1	2	**3***

Why? ***(Stocks have high potential rewards, but stockholders face high market risk. Many stocks carry significant financial risk also. The market risk and financial risk depend on how speculative the stock is.)***

U.S. Government Savings Bonds

Financial Risk	**1***	2	3
Market Risk	1	**2***	3
Liquidity Risk	1	**2***	3
Inflation Risk	1	**2***	3
Reward	1	**2***	3

Why? ***(These bonds are offered by the U.S. government, so there is little financial risk. There is some market risk, since a bondholder could be locked into a lower interest rate than the market rate. Bondholders can receive their money at any time, although there could be a penalty if the money is withdrawn before maturity. In recent years, bond rates have been higher than rates for passbook savings accounts.)***

Stock Mutual Funds

Financial Risk	1	**2***	3
Market Risk	1	2	**3***
Liquidity Risk	**1***	2	3
Inflation Risk	1	**2***	3
Reward	1	2	**3***

Why? ***(Stock mutual funds have the risks of stocks, but they offer more diversity. They can be bought and sold daily and so have liquidity. They still experience significant market risk that results from overall market conditions.)***

Stock Index Funds

Financial Risk	1	**2***	3
Market Risk	1	2	**3***
Liquidity Risk	**1***	2	3
Inflation Risk	1	**2***	3
Reward	1	2	**3***

Why? ***(Stock index funds carry some financial risk since their value is derived from indexes that track the performance of companies that could go bankrupt. Like all stock mutual funds, stock index funds experience market risk from the possibility that the market value of the fund could decline if the companies that are in the fund experience a decline in the price of their shares. These funds are usually quite liquid and tend to have a substantial potential reward. Rewards can be high because of the risks of the underlying assets that represent the fund and, in part, from the low costs of managing these funds.)***

Real Estate

Financial Risk	1	**2***	3
Market Risk	1	2	**3***
Liquidity Risk	1	2	**3***
Inflation Risk	1	**2***	3
Reward	1	2	**3***

Why? ***(Real estate prices depend on supply and demand in the neighborhood where the property is located. Prices can change if the neighborhood becomes more or less desirable. Also, it is not always easy to sell real estate, particularly if mortgage rates are high.)***

CLOSURE

As a way of highlighting the key points of this lesson, play "The Savings Game" with the students. "The Savings Game" can be described as follows:

Tell the students that each of them has $5,000 to invest, and they each must choose the financial strategy that best helps them achieve their risk-reward investment goals.

Write each of the following investments on a separate sheet of paper. You may wish to use different colors for different investments:

- Mattress
- Regular savings account
- Certificate of deposit (CD)
- U.S. Government Savings Bond
- Money market mutual fund
- Stocks
- Stock mutual fund
- Stock index fund

(NOTE: Don't use real estate; there are noninvestment reasons to buy a house.)

Place the sheets of paper on different parts of your classroom floor and ask the students to stand near the paper of the investment they would choose.

Count the numbers of students in each investment category; tell the students that they will use these numbers in the assessment activity for this lesson.

ASSESSMENT

Have students use the information from "The Savings Game" to write a report on the overall classroom attitude toward risk and reward. They should create a bar graph (or some other chart) to display the frequency of student selection for each type of investment. In the report each student should write a statement that defends his or her personal choice of investment and explains how that investment matches the risk-reward profile that he or she finds appropriate. In the report each student also should consider how his or her selection would differ depending on different investment goals (such as saving for a vacation, college, retirement, etc.).

EXTENSION

This is an ideal lesson for use in classes that play some form of a stock market game. It also goes very nicely with the online personal finance education game, Gen i Revolution, that is available on the Council for Economic Education's website at www.genirevolution.org.

There Is No Free Lunch in Investing

- Investment return is the additional income earned from saving or investing money.

- Risk is the uncertainty that an investor will receive the expected return.

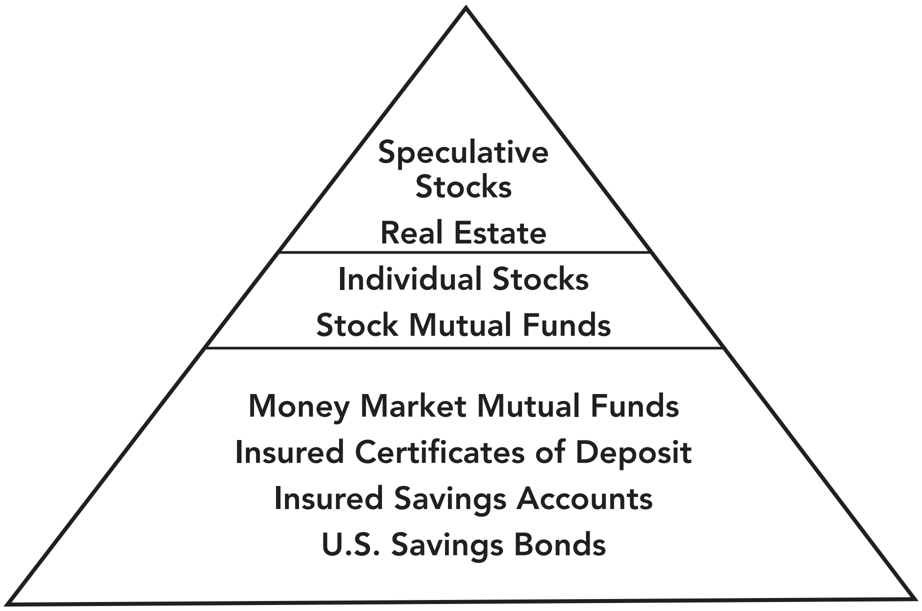
  ✓ The greater the risk, the higher the expected return.

  ✓ Investors are paid to take risks.

- There is no free lunch in investing.

The Pyramid of Risk and Rewards

Highest Risk: Highest Potential Return or Loss



Lowest Risk: Lowest Potential Return or Loss