Lesson 5.3 : Evaluating Investment Options

Adapted from Lesson 8b: Evaluating Investment Options:
https://www.federalreserveeducation.org/teaching-resources/personal-finance/investing/evaluating-investment-options-lesson-8b

Standards and Benchmarks

See page 5.

Lesson Description

Students use the PACED decision-making guide to investigate the trade-offs involved in choosing different types of investments. To obtain answer keys for the handouts and assessment in this lesson, create an account on FederalReserveEducation.org.

Concepts

Costs
Decision-making
Liquidity
Rate of return
Risk

Objectives

Students will be able to:

- identify and describe criteria that would be important in choosing investments.
- use the PACED decision-making model to choose investments.

Compelling Question

How do people choose among investment options?

Time Required

90 minutes

Materials

- Visual 5.3.1: PACED Decision-Making Guide for Choosing Investments, one copy for teacher to display, and one copy for each student
- Handout 5.3.2: Evaluating an Investment Alternative, one copy for each student
- Handout 5.3.3: Investment Alternatives, one copy for each student
- Handout 5.3.4: Investment Assessment, one copy for each student
- Answer Key 5.3, one copy for teacher

Procedure

1. Explain that the PACED decision-making guide is a way to help make informed decisions. Tell students the five basic steps: (1) Define the problem. (2) List the alternatives. (3) Determine the criteria. (4) Evaluate the alternatives. (5) Make a decision. Discuss the following:

    a. Once people have saved part of their income, what is the next question or problem they will likely need to address? (*Answers will vary, but lead students to realize that choosing investment options should be considered.*)

    b. Using the PACED decision- making guide, tell students that for Step 1, the problem is how to invest income.

    c. What is Step 2? (*List the alternatives.*)

    d. What are some investment alternatives? List alternatives on the board. *(Answers will vary. See the alternatives listed on <u>Visual 5.3.1: PACED Decision-Making Guide for Choosing Investments</u> and note those students miss. Briefly describe each alternative as needed; however, students will be asked to research these more fully below.*)

    e. Step 3 is to determine the criteria. Criteria are factors that could be used to rank one alternative as being "better" than another. What criteria do people find important for choosing investments? List the criteria on the board. (*Answers will vary but will likely include the rate of return and amount of risk.*)

2. From the list below, add to the list on the board any criteria students may have missed. Define each one as follows:

    a. **Rate of return** is the return on an asset over a given period divided by the market value (the price it can be sold for in a market) of the asset at the beginning of that period. This ratio is typically multiplied by 100 and expressed as a percentage.

    b. **Risk** is the chance of loss. For an investment, the risk is that the actual rate of return may vary from the expected rate of return.

    c. **Liquidity** is the quality that makes an asset easily converted into cash with little loss of value in the conversion process—that is, how easy is it to liquidate the investment. For example, money in savings can easily be withdrawn for spending, but a house takes time to convert into cash—you need to find a buyer and complete the paperwork before the deal is closed and a check is received.

    d. **Costs** are charges, fees, or other expenses associated with buying, selling, or holding an investment. For example, such costs include account maintenance fees, broker charges for buying and selling stocks, closing costs for buying or selling a house, minimum balance requirements, and mutual fund management fees, and so on.

3. Display Visual 5.3.1: PACED Decision-making Guide for Choosing Investments and distribute a copy of Visual 5.3.1 to each student. Explain that the grid lists alternatives down the left side and criteria across the top line. Remind the class that Step 4 of the PACED guide is evaluating the alternatives. Each cell of the grid needs to be filled in with an evaluation of how well each alternative meets each criterion.

4. Distribute copies of Handout 5.3.2: Evaluating an Investment Alternative and copies of Handout 5.3.3: Investment Alternatives to each student.

5. Form 14 groups of students and assign each group one of the 14 alternatives listed on Visual 5.3.1. Explain the following and then allow students time to complete the assignment:

6. Each group is to research and evaluate its assigned investment alternative according to the four criteria given on Handout 5.3.2 so that the findings will be comparable: rate of return, risk, liquidity, and costs.

   NOTE: One class period (roughly 40 minutes) should be sufficient. Some good websites to recommend for research are www.investor.gov and www.investopedia.com.

7. Have groups report their results and rationale, discuss any differences, and fill in the cells on Visual 5.3.1.

   NOTE: See Answer Key 5.3 for an example of how the grid may be filled out. The information in Answer Key 5.3 may be dated and/or subjective, so students will not have the exact values shown. What is important is that they provide a reasonable rationale for their evaluation.

8. Point out that the class is now at Step 5 in the PACED decision-making guide—make a decision. Discuss the following:

   a. Given the information shown on Visual 5.3.1, which alternative is the "best" choice? (*Students should recognize that the best choice depends on which of the criteria are most important to the person choosing. For example, if the person is uncomfortable with risk, they would not want to choose alternatives with high risk. On the other hand, a person interested only in a high rate of return would likely choose one of the more risky alternatives.*)

   b. Why might an investor wish to choose more than one investment alternative? (*The investor may have multiple needs: They may want high liquidity to meet short-term goals, a high rate of return to meet long-term goals, or to lower risk through diversification.*)

   c. How might economic conditions like recession, inflation, etc. affect which investment alternatives people prefer? *(Preferences can change based on economic conditions. If the economy is not doing well, people tend to prefer less risky investments. If the economy is growing and doing well, people may be willing to take on riskier investments.*)

Closure

9. Review the important points of the lesson by asking students:

    a. What are some important factors to consider when evaluating an investment alternative? *(Answers will vary, but students may say rate of return, risk, liquidity, and costs, among other factors.)*

    b. What is the role between risk and return in investments? *(The riskier an investment is, the higher the return tends to be.)*

    c. Given your own views of investments, which investment would you most recommend to others? *(Answer will vary.)*

Assessment

10. Distribute a copy of Handout 5.3.4: Investment Assessment to each student and allow time for students to work (or assign as homework).

Standards and Benchmarks

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 investments.

Benchmarks: Grade 8

2. Common types of financial assets include certificates of deposit (CDs), stocks, bonds, mutual funds, and real estate.

5. Instead of buying individual stocks and bonds, investors can buy shares of pooled investments such as mutual funds and exchange-traded funds (ETFs).

6. Different types of investments expose investors to different degrees of risk.

Benchmarks: Grade 12

3. Investors expect to earn higher rates of return when they invest in riskier assets.

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.

7. Expenses of buying, selling, and holding financial assets decrease the rate of return from an investment.

Visual 5.3.1: PACED Decision-making Guide for Choosing Investments

Investment Alternatives	Criteria			
	Rate of Return	Risk	Liquidity	Costs
Cash				
Checking Accounts				
Savings accounts				
Money market deposit accounts				
Certificates of Deposit (CDs)				
U.S. savings bonds				
Money market mutual funds				
U.S. Treasury bonds				
Stocks				
Real estate				
Commodities				
Mutual Funds				
ETFs				
Cryptocurrencies				

Handout 5.3.2: Evaluating an Investment Alternative

Investment alternative: ____

Directions: Evaluate your assigned investment alternative according to the four criteria below (rate of return, risk, liquidity, and costs.)

Criteria

__________ **Rate of return:** find the current rate of return or expected range of rates of return for your investment alternative.

__________ **Risk:** Rate the risk of this investment on a scale from 1 (virtually no risk) to 5 (very high degree of risk). What are the risks of this investment? Risk can come from many sources: market fluctuations that affect the market value of the investment, funds that are not insured, bankruptcy of companies, default by borrowers, inflation, theft, fraud, and so on.

__________ **Liquidity:** Rate the liquidity of this investment on a scale from 1 (low— very difficult to convert into cash) to 5 (very high—very easy to convert into cash). Consider how difficult, costly, or time-consuming it would be to sell the investment to turn it into cash.

__________ **Costs:** Rate the cost of this investment on a scale from 1 (no or very low costs) to 5 (very high costs). Consider all fees, charges, or other expenses associated with buying, selling, or holding the investment (such as maintenance fees, broker charges, transactions fees, minimum balance requirements, and so on). Notice that these costs do not include the price of the actual financial asset.

Handout 5.3.3: Investment Alternatives

- **Cash** is accepted as payment for all debts both public and private. There are no costs associated with holding cash, but there is also no return and its value diminishes due to inflation. It may seem that holding cash has no risk; however, cash is vulnerable to loss or theft.
- **Checking accounts**, which may be held at a bank or credit union, allows the account owner to deposit and withdraw funds. Account owners have the privilege of writing checks on their accounts and using ATM cards and debit cards to access funds. Accounts in FDIC (Federal Deposit Insurance Corporation) member banks are insured up to $250,000. Your principal will always be available to you, but you will receive little or no return.
- **Savings accounts** are accounts with a bank or credit union in which people can deposit their money for future use and earn interest. Accounts in FDIC member banks are insured up to $250,000. You will never lose your principal, but your return will be relatively small.
- **Money market deposit accounts** are offered through banks and operate like a savings account but with a higher minimum investment. They are usually FDIC insured up to $250,000 and offer limited check-writing privileges, so your money is fairly accessible.
- **Certificates of deposit (CDs)** are a saving alternative in which money is left on deposit for a stated period of time to earn a specific interest rate. They are very safe and offer a greater return than savings accounts, but access carries a penalty if money is withdrawn before the specified time.
- **U.S. savings bonds** are debt securities issued by the U.S. government. Buying a bond is essentially the same as lending money to the U.S. government. You can purchase a bond for as little as $25. Bonds are backed by the full faith and credit of the U.S. government, making them one of the safest investments.
- **Money market mutual funds** are an investment product offered by non-bank institutions such as mutual funds companies. They are not FDIC insured, although they tend to buy relatively safe investments such as short-term government bonds and corporate bonds. The funds offer limited check-writing privileges, so your money is fairly accessible.
- **U.S. Treasury bonds** are backed by the full faith and credit of the U.S. government. You will not lose your principal; there is no chance of default. The return is usually greater than from savings accounts or certificates of deposit. When you buy a U.S. Treasury bond, you are lending your money to the U.S. government.
- **Stocks** are part-ownership in a company. Some stocks are riskier than others. Generally, the lower the price, the higher the risk. Potential returns on stocks are greater than those from bonds or insured savings to account for the greater risk.
- **Real estate** is residential or commercial property. The recent housing bubble illustrated the risk in real estate. For those who sold before the bubble burst, the returns were quite high.
- **Commodities**, such as gold and silver, are speculative. In general, their values grow in times of economic uncertainty but returns are relatively low during steady economic times.
- **Mutual funds** are collections of financial assets such as stocks and/or bonds that provide a means of diversification. Some funds are riskier than others because they have a more uncertain future value. Returns on mutual funds vary based on the financial assets held by the fund. Mutual fund companies charge investors fees to manage the portfolio of investments, and these fees can vary widely based on the fund.
- **Exchange-Traded Fund (ETF)** is an investment fund that trades on stock exchanges and allows investors to hold a diverse portfolio of assets like shares or bonds. It pools money from multiple investors to buy a portfolio, providing increased diversification. Unlike mutual funds, ETFs are traded on stock exchanges. This makes them riskier than mutual funds, but they are more flexible, allowing investors to react quickly to market changes.
- **Cryptocurrencies** are digital assets that use cryptography or blockchain technology to enable secure, decentralized transactions without the need for banks or governments. They exist only in electronic form and operate on a decentralized network of computers (blockchain). The return can be higher, but they tend to be riskier investments.

Handout 5.3.4: Investment Assessment

Directions: Use what you learned about the PACED decision-making guide, select one good investment option for each of the investors below. For each investor, explain which of the four criteria (rate of return, risk, liquidity, and costs) were the most important factors in choosing those investments.

1. Investor 1 is young with lots of time until retirement and not afraid to take on risk.

2. Investor 2 hopes to retire in three to five years and has a high level of anxiety about fluctuating investment values.