CHAPTER 1

Beginning Your Financial Journey: The Interior Finance Point of View

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LEARNING OBJECTIVES

Once you have finished reading and working through the material in this chapter, you will be able to:

1.1 Describe how your financial knowledge, experience, risk tolerance, and feelings of control influence the way you view the financial world.

1.2 Explain how your human and social capital relate to your financial well-being.

1.3 Discuss how financial risk tolerance relates to financial goal achievement.

1.4 Use your unique time perspective to create SMART financial goals.

1.5 Describe strategies to overcome mental biases and improve financial decision making and well-being.

Your interaction with and use of money is a lifetime journey. This text will help prepare you to successfully navigate the financial decisions in your life. We will provide you with the tools—both conceptual and functional—that will enhance your financial literacy and capabilities.

What do we mean by **financial literacy**? Some have described financial literacy as financial education or being knowledgeable. Some think financial literacy is the same as having a background in economics. Others see financial literacy as being a streetwise consumer. In actuality, financial literacy can mean any and all of these things, plus a whole lot more, including:

- Realizing how personal and economic factors impact a household's financial situation.
- Being able to apply basic time value of money concepts.
- Developing a balance sheet.
- Creating a budget and then tracking income and expenses on a monthly basis.
- Calculating and managing personal taxes.
- Knowing the costs and benefits of borrowing money.
- Determining basic saving and investing choices.
- Understanding the important role insurance plays in managing uncertainty.
- Planning for unforeseen life and death issues.
- Being able to navigate effectively through the financial marketplace.

We believe that learning these financial literacy topics can be fun and provide you with a foundation to make wise financial decisions today and in the future. This first chapter focuses on what we are calling interior finance issues, or the factors that make you who you are, such as your willingness to take risks, perceptions, preferences, decision-making style, and human capital.

Your Starting Point

Let's get started by having some fun. The following is a short questionnaire that you can use to gauge where you are starting on your financial journey in this class. The instructions are easy: just answer honestly.

What's Your Financial Literacy?

	True	False
1. The best way to get wealthy over time is to play it safe and keep your money in places like bank accounts.	☐	☐
2. When you go shopping, you usually buy things you want even if you don't have the cash to pay for the items.	☐	☐
3. It would be better to make $100 today than to wait 3 months to receive $125.	☐	☐
4. When you think about savings, the term "CD" means compact disc.	☐	☐
5. The most valuable investment you will ever own is your house.	☐	☐
6. You only need to use a budget after you finish school.	☐	☐
7. All debt is bad.	☐	☐
8. The best way to live financially is day-to-day, dealing with things as they happen.	☐	☐
9. Becoming a millionaire in your lifetime is unrealistic.	☐	☐
10. When buying something, what really matters is whether you can make the monthly payment, not what the item costs.	☐	☐
Total Number of True Responses: ________		

How did you do? It turns out that the correct answer to every question is "false." Your score is the sum of your "true" responses. Here is how to interpret your score:

- **0 to 1:** You are starting this class with confidence and good judgment.
- **2 to 4:** Sure, you missed a few questions, but overall you are off to a good start.
- **5 to 7:** Okay, you missed several questions. This means that an opportunity exists to learn new concepts that can increase your financial confidence.
- **8 to 10:** You have come to the right spot for help. The material in this text will help you improve the way you are dealing with your financial situation.

Let's now get started learning how to successfully navigate the financial decisions in your life so that you can begin to achieve your lifetime dreams and goals!

Your Journey to Financial Well-Being

LO 1.1 Describe how your financial knowledge, experience, risk tolerance, and feelings of control influence the way you view the financial world.

As you begin your lifetime financial journey, ask yourself this: What are your thoughts about money? Is it a tool that you use to buy what you need and want? Is it a source of comfort in knowing that you have extra resources in the bank? For some, just the thought of not having enough money, or sometimes having too much money, can cause stress. For others, the same thoughts about money are a source of excitement. As a result, depending on your perceptions about money and your financial situation, you might view your financial journey as either an adventure fraught with peril or one brimming with opportunity. In this topic, we discuss how you can help to ensure the latter.

Your Internal View of the Financial World

Rather than starting your financial journey with facts, figures, charts, and statistics, let's start instead by assessing your internal view of the financial world. As shown in **Illustration 1.1.1**, **internal finance** is essentially the combination of:

1. Financial knowledge.
2. Financial risk tolerance.
3. Feelings of control.

Although we'd like to believe that we always act rationally, the truth is that some of our decisions can be based on a biased view of the financial world.

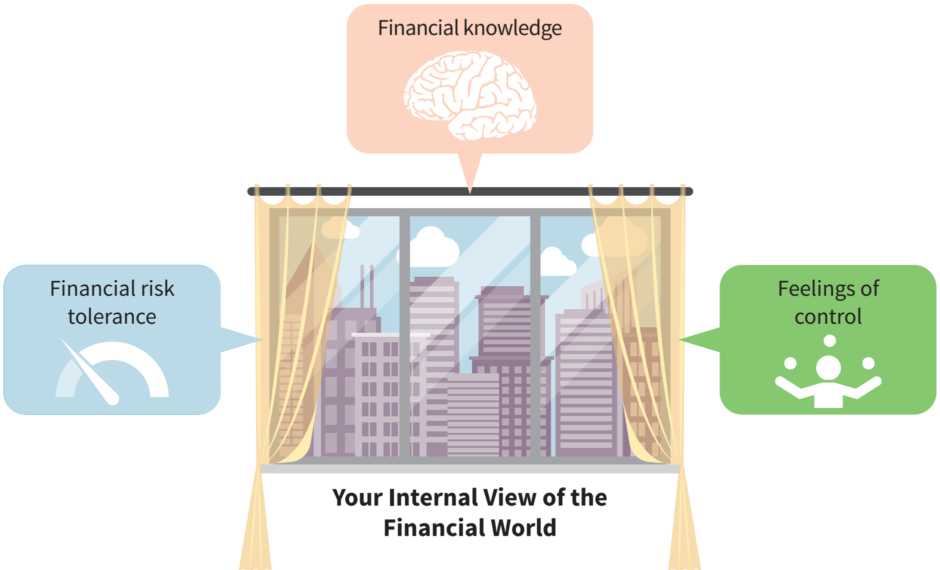


ILLUSTRATION 1.1.1

Internal View of the Financial World

Financial Knowledge

As you begin to gain **financial knowledge**—the ability to understand personal finance information—you will notice that your current perceptions about finances will change.

Knowing who you are, where you want to go, and what skills you currently possess are essential factors shaping your financial journey. As you apply your financial knowledge, develop skills, and organize your finances to achieve your personal goals, your confidence and peace of mind regarding your financial situation, or your **financial well-being**, will increase.

Financial Risk Tolerance

Your **financial risk tolerance** is your willingness to engage in financial endeavors that have uncertain outcomes.

- Some people are natural risk-takers. They might plan their financial journey and then later completely deviate from it, looking to take advantage of the latest financial opportunities.
- Others would rather avoid risks if they can. As you might imagine, those who prefer to avoid risk often feel more comfortable with a detailed plan for every step of their financial journey.
- Some are in the middle. They are willing to take risks when they believe the rewards are high enough.

It's worth remembering that everyone's financial journey is different. Given its importance, we explore financial risk tolerance in depth in another chapter.

Feelings of Control

At this point, it's also important to account for your **feelings of control**. Think of these feelings as the amount of control you feel you have when making financial decisions (see **Helpful Hint**).

HELPFUL HINT

Although there is no single correct way to think about control issues, it can be useful just knowing how this factor can shape your own financial journey.

- Some people believe that what happens to them is based on luck or fate. They might view their financial journey as uncertain.
- Others might believe that what happens to them is shaped primarily by their own efforts. They might perceive their financial journey as something to conquer.

As you start to think about where you are today emotionally and financially, and where you want or need to be in the future, know that your current financial risk tolerance and feelings of control are only a starting point. You'll probably find that your view of the world will change as you gain more knowledge and experience. That's the fun part of learning!

Launching Your Lifetime Financial Journey

One of the exciting things about beginning your financial journey, or for some jumping ahead in their current journey, is thinking about all the opportunities that await in the future. Consider **Illustration 1.1.2**, which shows the major events that many people experience during their lifetimes, including lower-cost adventures like vacations to very high-cost events like starting a family.

Keep in mind, as you look at the events in Illustration 1.1.2, that nearly every occurrence shown entails the management and expenditure of financial resources. Although you can deal with these events as they come up by using your current income and hoping for the best, there's a better route. You can continue to increase your financial skills and abilities, which in turn can positively influence your financial behavior and well-being.

For people who manage money well:

- Wealth grows at an accelerating rate over their lifetime.
- Their time and energy are not as constrained by finances.

In contrast, people who don't manage money well may miss out on a myriad of opportunities and be forced to make difficult financial decisions.

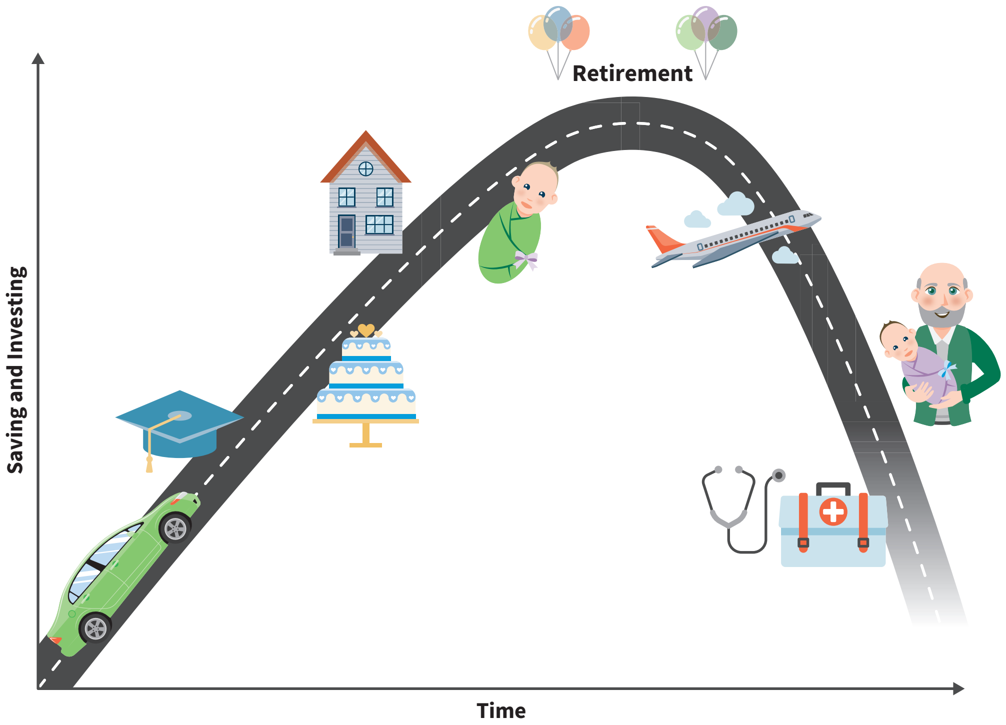


ILLUSTRATION 1.1.2

Life's Journey: A Costly Adventure

Behavioral Outcomes

The graph in Illustration 1.1.2 doesn't depict all the other adventures, accomplishments, setbacks, and mundane occurrences that also enrich and challenge our lives along the way. Regardless of the significance of the events, financial knowledge can play an important role in making each of our personal journeys more meaningful by influencing our behavior (see **Helpful Hint**).

- If you keep working to increase your financial knowledge, you can start planning now for your life's journey.
- Those who increase their financial knowledge and skills tend to experience greater financial well-being (see **Illustration 1.1.3**).

HELPFUL HINT

Financial literacy is one of the most important predictors of savings and investment success and overall well-being.

ILLUSTRATION 1.1.3

Financial Knowledge and Skills Support Financial Well-Being

Gaining Perspective

Can your financial knowledge influence outcomes on a larger scale? Consider the U.S. economy, which is among the largest in the world. When economists talk about "large," they're referring to gross domestic product.

- **Gross domestic product (GDP)** is measured by adding up how much a country produces in goods and services in a year.
- Everything from the value of cars to the value of the shrubs and flowers purchased at a local store is included in GDP.

- Some things are not counted, for example, the value of housework performed by the occupant.

In 2017, the U.S. GDP was $19.42 trillion. To put that into perspective, that's the same as owning 514 million $35,000 automobiles. How could you, even if you gained a tremendous amount of financial knowledge, influence that huge number? The surprising thing is that you can. For example, nearly two-thirds (66%) of GDP consists of consumer spending. So the more you, your friends, and your neighbors purchase, the larger GDP becomes. On the other hand, if you and others slow down or stop spending, GDP goes down. As such, you can help shape, in a small way, what products are made, how much is charged, and what the future direction of the economy will be (see **Helpful Hint**). Now you can see how small transactions are the key to making a big difference in the economy!

HELPFUL HINT

The smarter you are about financial issues, the bigger impact you can have on the way the U.S. economy grows in the future.

Concepts in Action

A few years ago, *The Wall Street Journal* wrote a story about baby boomers (those born between 1946 and 1964). The newspaper wanted to know if baby boomers were ready to retire. Of the baby boomers surveyed for the story, nearly one-half worried that they wouldn't have enough money to live comfortably in retirement. Why is this a potential problem for the U.S. economy in the future?

Solution

This could spell bad news for the U.S. economy in the future because if baby boomers have less money to spend in retirement, the GDP might stagnate or fall. One reason some baby boomers are concerned is because when they were young, they tended to spend more than they earned. In other words, they borrowed a lot of money. On the other hand, those who were smart about money, that is, those who saved and paid down their debt, are feeling good about the future. The lesson here is to take your financial journey seriously. Doing so will improve your chances of having a life of financial security.

Source: A. Tergesen, "Everybody Says You Should Downsize: Everybody May Be Wrong," *The Wall Street Journal* (December 10, 2012), p. R1.

The Journey to Financial Well-Being

Key Personal Behavior

So what does it take to become financially knowledgeable and skilled at managing your financial situation? The good news is that financial knowledge and skill development is something that's learned—no one is born with these characteristics. Yet regardless of how much financial knowledge you acquire, knowledge is useless unless it's also accompanied by some key personal behaviors such as:

- Self-control.
- A desire to apply financial information to the management of your household.
- Continuing to learn about personal finance topics.

Does this sound like you? If not, no worries! Your motivation to gain and apply financial knowledge will grow as you learn about and use the tools that can help you to manage your resources, keep good records, earn money, manage taxes, spend carefully, save wisely, invest strategically, maintain appropriate insurance, and plan for your future.

Picturing the Future

Envisioning the future is not easy, but it can be exhilarating. Do you have a long-term life vision? Have you thought about what ultimately would make you feel happy and fulfilled?

One way to begin planning for the future is to ask yourself a series of questions, such as the following:

- What type of job will you be seeking? In what geographic area?
- Do you plan to live alone or with a significant other? Do you want children?
- What type of residence (house, apartment, RV) sounds ideal?
- Do you like the idea of taking yearly vacations? If yes, where, when, and at what cost?
- How would you like to spend your retirement years?

Don't forget about your short-term, day-to-day dreams either. For example, are you okay with an older car or would you like a new sporty model?

Asking these types of questions helps create a **financial roadmap**, a course that will help you outline how to apply your financial knowledge to achieve your life vision. And just like you might ask **Google Maps** to route a trip that bypasses crowded highways in search of out-of-the-way places, you can set a path that will help you avoid certain pitfalls, bad outcomes, and unexpected delays. With a financial roadmap, you can work toward reaching your financial dreams and goals.

End-of-Topic Assessment

Multiple-Choice Questions

1. Financial knowledge refers to:

- **a.** how well you manage the financial stressors in your life.
- **b.** how well you understand personal finance information.
- **c.** how well you score on standardized measures of personal finance.
- **d.** your maximum score on a comprehensive consumer finance test.

2. Which of the following strategies is most likely to increase your confidence about your financial future?

- **I.** Applying your financial knowledge.
- **II.** Organizing your finances to achieve your personal goals.
- **III.** Borrowing money to improve GDP.
  - **a.** I only.
  - **b.** II only.
  - **c.** I and II only.
  - **d.** I, II, and III.

3. The way you view the financial world is shaped most profoundly by:

- **a.** your teachers.
- **b.** your feelings about the world economy.
- **c.** the news media and reports of GDP.
- **d.** your financial knowledge, financial risk taking, and feelings of control over your situation.

4. People who ____________ are less likely to feel that they are in control of their financial future.

- **a.** are knowledgeable about money issues
- **b.** believe that they can control their own destiny
- **c.** believe strongly in luck and fate
- **d.** understand the nature of risks and returns

5. Nigel believes that most "rich people" obtained their wealth either through hard work or by investing wisely. Assuming Nigel adopts this same perspective as a guide to his own spending and saving behavior, he is most likely to become:

- **a.** more knowledgeable about the financial marketplace over time and increase his personal wealth.
- **b.** disillusioned later in life as he nears retirement.
- **c.** a consistent purchaser of lottery tickets.
- **d.** both disillusioned later in life as he nears retirement and a consistent purchaser of lottery tickets.

6. Now that Graham has graduated college, he is facing several changes in his life. He was recently married and started a new job in a large city. Which of the following events is going to have the highest cost over Graham's life?

- **a.** Purchasing a new car.
- **b.** Paying his undergraduate student loans.
- **c.** Having and raising a child.
- **d.** Paying for vacations on a yearly basis.

7. What is the single largest component of the U.S. GDP?

- **a.** Consumer spending.
- **b.** Business investment.
- **c.** Government spending.
- **d.** The rate of unemployment.

8. In the short term, what might happen if all Americans suddenly learned the foundational concepts of personal finance—they borrowed less, saved more, and spent less—and changed their behavior immediately?

- **a.** More lottery tickets would be purchased because consumers would have more money to spend.
- **b.** GDP would fall because consumers would spend less on goods and services.

c. GDP would increase because the government would have more investments to tax.

d. Confidence about the future would decline because consumers would know what it is going to take to retire and live a comfortable life.

9. Which of the following is most clearly a personal financial strength?

a. A willingness to save money on a regular basis.

b. A willingness to borrow money for day-to-day purchases.

c. A willingness to postpone future goals in pursuit of current objectives.

d. All of these answer choices are correct.

10. Which of the following people is most likely to be considered financially knowledgeable?

a. Jamie, who has low self-confidence, likes to gamble, and rarely tracks news stories online.

b. Todd, who exhibits self-control but is not self-confident or financially experienced.

c. Michelle, who gives regularly to charity, reads about investing, and is self-confident.

d. John, who lives day-to-day and is experienced with investing but sometimes spends more than he earns.

Adventures in Personal Finance

Short Answer

1. Think of one or two people that you would consider financially successful: friends, family members, or those who are famous. Do you think that their financial success was obtained through their own or their family's work and effort, or purely by chance, fate, or luck? Why or why not? Additionally, what might your answer indicate about your perception of the level of control you have over your financial future?

2. How do your feelings of risk tolerance affect your view of the financial world? How can financial literacy change your perception of risk?

3. As noted in the Concepts in Action box, a few years ago *The Wall Street Journal* wrote a story about baby boomers (those born between 1946 and 1964). The newspaper wanted to know if baby boomers were ready to retire. They found that nearly 50% of all baby boomers worry that they won't have enough money to live comfortably in retirement. Do you think the newspaper's findings would have been different if the story was about Gen X (those born between 1965 and 1980), Gen Y/millennials (those born between 1981 and 2000), or Gen Z/boomlets (those born after 2001)? Why or why not?

4. List 10 life events and identify whether they require any short-term or long-term financial resources.

Explore

1. Visit the **U.S. Census Bureau** website and locate the table entitled "Real Gross Domestic Product, Chained (2005) Dollars—Annual Percent Change: 1990 to 2010." The table provides data showing the percent change in GDP from one year to the next. Look specifically for the years 2006, 2007, 2008, and 2009 (these years represent what has since been termed the Great Recession). What happened to national GDP during those years? What might explain the data?

2. **Presentation** Conduct an Internet search using the phrase "financial literacy." What type of programs, study materials, and quizzes are available for free? Share your best findings with others in class.

3. The **National Football League (NFL)** and **Visa, Inc.** have teamed up to promote financial literacy. You can play a realistic football game online either against the computer or a friend. Visit the game's website by searching the Internet for "practical money skills training camp." Next, play a short 5- or 10-minute game. To progress downfield and score points, you must answer financial literacy questions. At the end of the game, assess how well you did, both in points and questions answered correctly. Do you think this type of game would help others learn about financial issues? Why or why not?

Expanded Learning Activity

Writing Visit the **Google Scholar** website and enter "financial literacy" as a keyword search. Choose a paper that matches the search. Read the paper and write a short (300- to 500-word) reaction to the paper. Note that these are research papers, which means that most have references to statistics and other quantitative analyses. When writing your reaction, focus on the key results related to financial literacy rather than the methods used by the paper's authors.

Human Capital: An Essential Element of Financial Well-Being

LO 1.2 Explain how your human and social capital relate to your financial well-being.

We have discussed how financial knowledge and skills are essential in shaping your lifetime financial journey. Closely tied to these factors is your level of human and social capital.

- **Human capital** is your ability and willingness to work, learn, earn, and make wise decisions about how to save and invest money.
- **Social capital** is how well you are able to form connections with other people. As such, your social capital will affect the value of your human capital, particularly how much you earn over your working life span.

In this topic, we discuss how you can optimize your human and social capital to help you increase your financial well-being and achieve your financial goals.

Human Capital

Human capital is your most valuable **asset**—something of value you own. In this section, we discuss those resources that can increase your human capital.

Your Education and Earnings

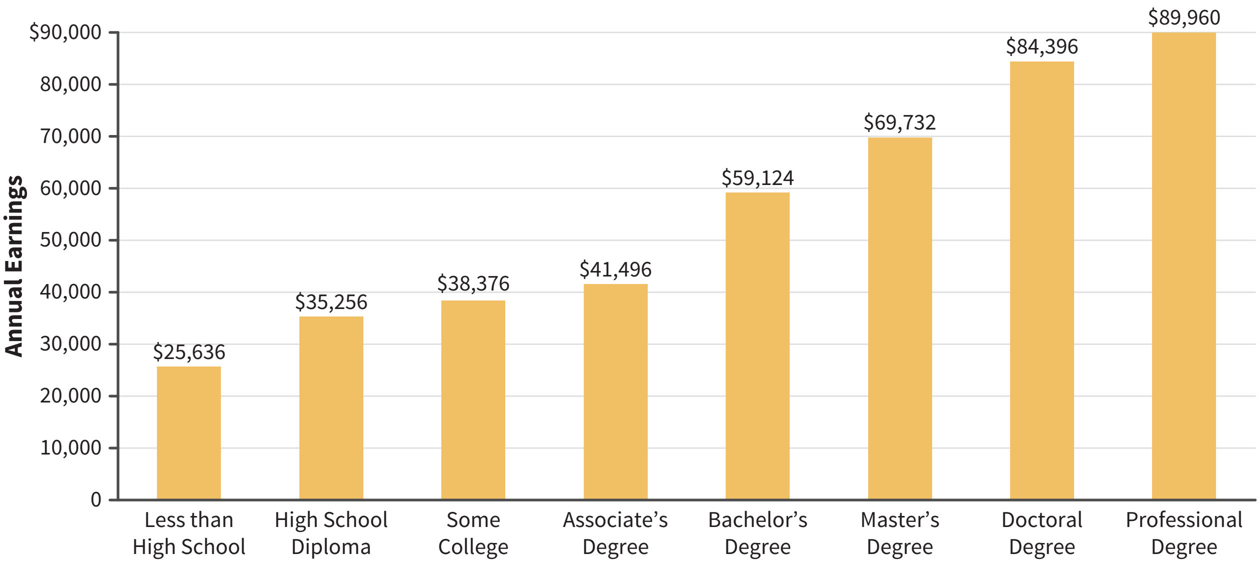
Your earnings are an indicator of the value of your human capital in the labor market. Earnings are often closely associated with your level of formal education. **Illustration 1.2.1** shows how annual earnings increase with formal education.

- Holding a professional degree—a legal or medical diploma, for example—is often a pathway to higher income and human capital.
- Those with an advanced academic degree tend to do better when the economy turns downward (see **Helpful Hint**).

HELPFUL HINT

Those with little or no college education are more likely to lose a job during a recession than those with a college degree or higher level of education.

ILLUSTRATION 1.2.1 **Relationship Between Earnings and Level of Formal Education**



Source: U.S. Bureau of Labor Statistics.

In addition to formal education, other resources also increase your human capital:

- Your health.
- Your willingness to relocate to higher-paying job markets.
- Continuing professional education and skill development.

Your Health

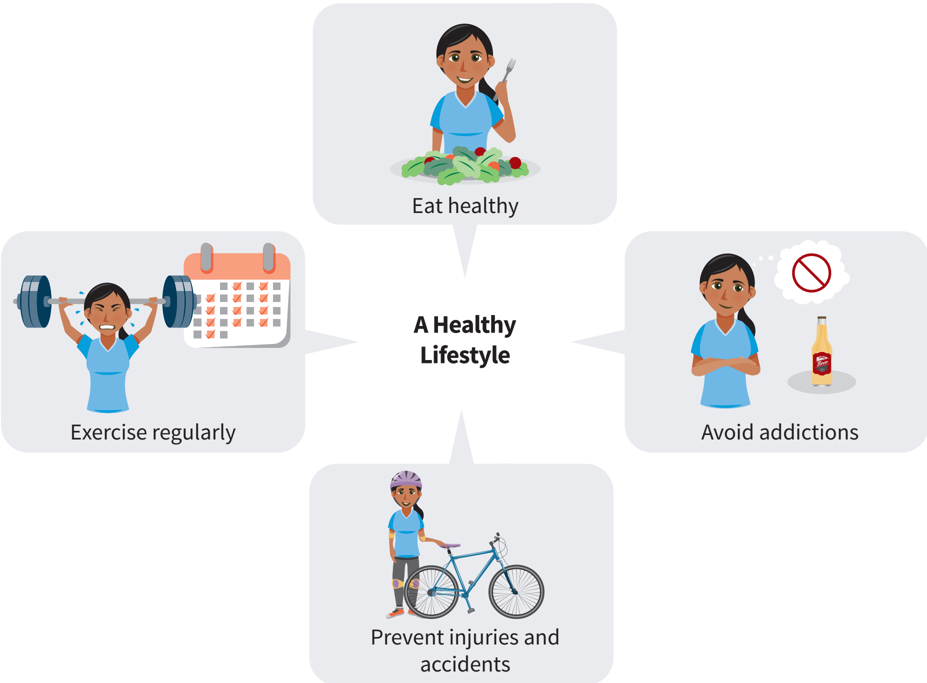
Health affects human capital in both the short and long run.

- Generally, healthy people work more hours and for a longer period of years over their life span compared to those with health problems.
- Thus, healthy people tend to earn more money on an annual basis, as well as over their lifetimes.
- Poor health may result in a lower standard of living across the life span.

Taking care of your body and mind so that you can continue to work is a valuable human capital investment. Consider the behaviors shown in **Illustration 1.2.2**. Actively managing your health by eating a healthy diet, avoiding substance abuse, and preventing and minimizing accidents (by wearing your seatbelt and never texting while driving) all add up to a healthy lifestyle that will extend your life and increase your human capital.

ILLUSTRATION 1.2.2

Healthy Behaviors Affect Human Capital



Willingness to Relocate

Relocating to where specific types of human capital are more valued also increases how much you can earn (see **Helpful Hint**).

HELPFUL HINT

Those who are mobile tend to earn a higher income over their lifetime financial journey because they can take advantage of location-specific higher income from their work, making it easier to save more money over their work life.

- For example, when oil prices are high, mechanics, construction workers, and other skilled and unskilled workers can make more money moving to the oil fields of North Dakota, Alaska, and West Texas compared to staying in places where their skills may not be valued as highly.
- There are also often greater job opportunities for individuals willing to work in a foreign country.

Continuing Education and Skill Development

In addition to formal education, you can also gain valuable human capital through on-the-job training and continuing professional education to:

- Develop specific skills.
- Practice attained skills.
- Apply skill sets.

However, as the economy fluctuates, some forms of human capital may become obsolete. There was a time, for example, when architecture firms hired drafting experts based on drawing skills. But with the advent of computer-aided design (CAD), those in traditional drafting positions had to learn new skills to stay employed. Those who were either unable or unwilling to transition their skill set found that their services were no longer valued or even needed. On the other hand, those who were well-versed in CAD saw their salary levels rise. A key takeaway is this: through continued learning and training, you can preserve and increase your earning potential.

The Relationship Between Human Capital and Financial Wealth

Over the course of your work life, you will want to convert the returns on your human capital, such as earnings, into other forms of wealth, such as retirement savings, real estate, and other assets. This reflects a natural progression.

1. Early in your career, your human capital increases because you are gaining additional education, training, and experience, and likely relocating to accept better jobs.
2. As you continue to gain work experience and additional professional education, your human capital becomes increasingly valuable.
3. Over time, the increase in your human capital may slow because you have less time remaining before you need, or choose, to retire from paid work. However, if you plan wisely, you'll notice that as you age, your financial wealth increases.
4. At some point, you should be able to stop working and rely on your wealth to provide your financial support.

The progressive relationship between human capital and wealth is shown in **Illustration 1.2.3**.

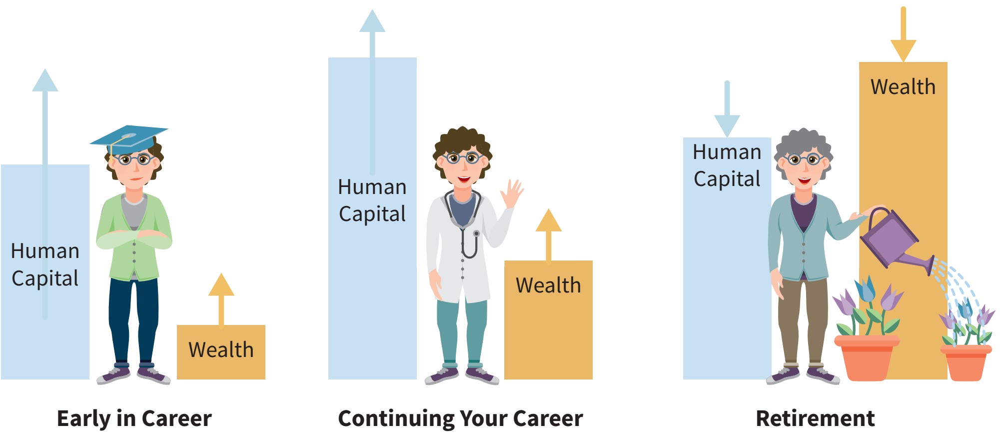


ILLUSTRATION 1.2.3

The Relationship Between Human Capital and Wealth over the Life Span

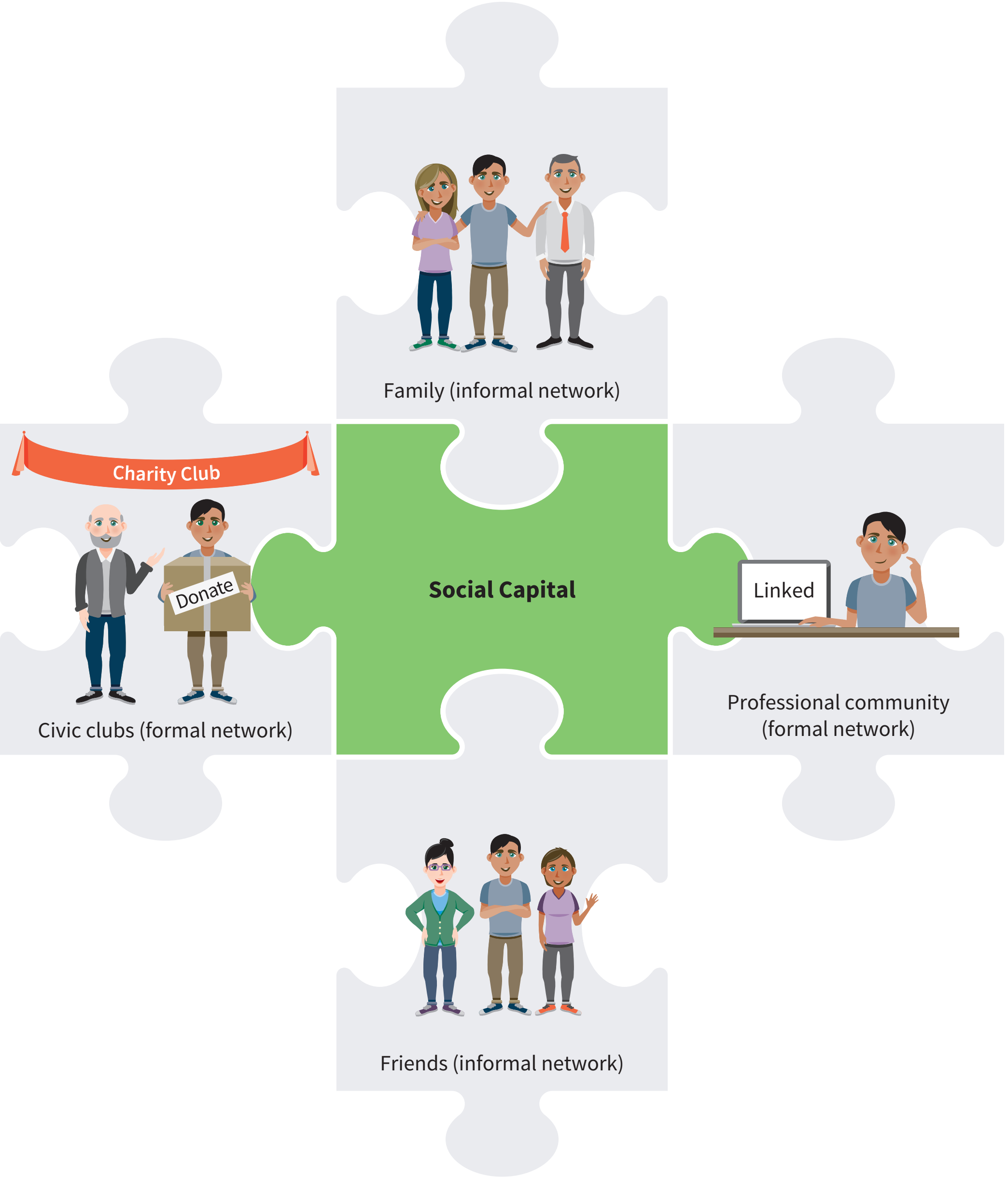
HELPFUL HINT

Be wary of how you present yourself on social media sites and with whom you are sharing your personal information. Employers, for example, routinely monitor such sites when hiring and might be making skewed evaluations about your personal and professional qualifications based on what they see.

Social Capital

Unlike human capital, social capital is not found in individuals themselves but rather in the space between individuals, or the network of connections among people. **Illustration 1.2.4** shows how your social capital is shaped by informal and formal networks (see **Helpful Hint**).

ILLUSTRATION 1.2.4 **Elements of Social Capital**



Informal Networks

Informal networks are the interpersonal relationships you form with your family and close friends.

- Informal networks can provide encouragement and support.
- People in your network might help you find work, give you a place to stay, or lend you money.

People receive many of life's joys from these close relationships. As such, it's important to keep these relationships strong and healthy.

Formal Networks

Formal networks connect you with people in professional, recreational, leisure, and social communities.

- Formal networks include clubs, organizations, and professional associations (see **Helpful Hint**).
- You will find that these types of broader networks will help you advance in your career.

Establishing a variety of professional networks early in life can be valuable as a source of potential contacts for employment.

HELPFUL HINT

A large professional social media network is LinkedIn.

The College Payoff

As we discussed previously, education tends to be positively associated with greater earnings. Let's now take a closer look at how your choice of college and degree program can affect both your human and social capital.

Educational Value

In today's highly competitive world, the search for **educational value**—the point where returns through job placements, income, and human capital outweigh the costs of attendance—is a worthwhile activity. Some of the costs and benefits associated with investing in your human capital are shown in **Illustration 1.2.5**.

- When you go to school to gain new knowledge and skills, you incur costs, such as tuition, fees, and books.
- You may lose some current earnings while you attend school.
- You might need to take out student loans.
- It is important, therefore, to make sure that the expected benefits of attaining additional education, at a minimum, cover these costs.

If you look at only the short-term costs and benefits, education might not seem worthwhile. However, if you look at the long-term payoff, the choice is usually easy: over a working lifetime, those with a professional degree will generally earn over $2 million more than those with only a high school diploma![1]

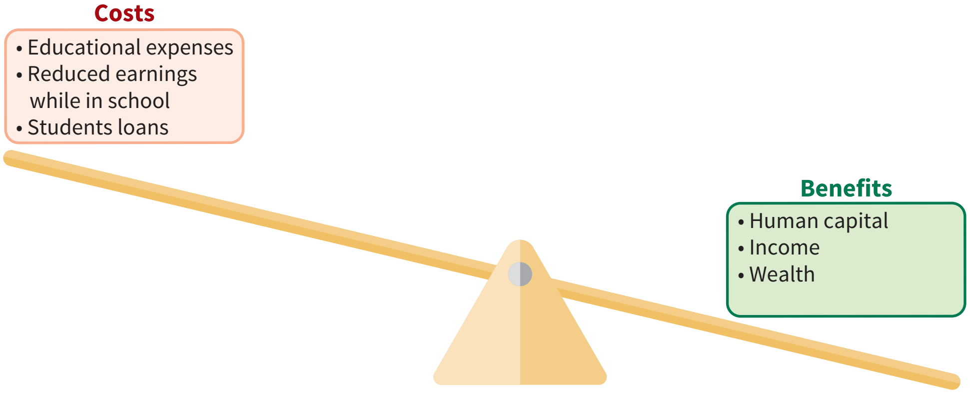


ILLUSTRATION 1.2.5

The Benefits of Higher Education Should Outweigh the Costs

[1] U.S. Bureau of Labor Statistics, *Unemployment Rates and Earnings by Educational Attainment*, 2016.

Investment Payback Period

Regardless of the type of school or educational program you are interested in pursuing, you would be wise to compare the cost of the program to the additional annual income you'll earn once you have completed it. You can use the following formula to estimate how long it will take you to earn back your investment. This is called the **investment payback period**:

$$\textbf{Payback Period} = \frac{\textbf{Total Costs}}{\textbf{Increase in Annual Income}}$$

The longer the payback period, the more you should question the economic value of your investment.

For example, consider Jamal who's 31 and married with two children, ages 9 and 7. Jamal just finished his associate's degree at a local community college. He would now like to finish his bachelor's degree on a full-time basis, which means that he will lose 2 years of income. To determine if this is a wise economic investment, Jamal needs to consider the following:

- Jamal currently earns $35,000 annually.
- He will live with his family, and his wife will continue working while he is in school.
- Tuition, books, and fees will be approximately $13,000 per year, and Jamal plans to use student and personal loans to cover these expenses.
- Jamal will also use student and personal loans to cover $7,000 in additional household expenses each year.
- Jamal believes he can increase his income by $12,000 per year after graduation.

Illustration 1.2.6 shows an **estimate** of Jamal's payback period. A more detailed analysis would take into account the interest rate on the student and personal loans, inflation, the length of loan repayments, faster potential earnings growth, and other factors. Nonetheless, this simple approach can help inform Jamal if going back to school makes financial sense.

ILLUSTRATION 1.2.6

Investment Payback Period Example

Expense Item	Amount
Lost income ($35,000 × 2)	$70,000
Household expense loans	14,000
College tuition, books, and fees	26,000
Total costs	$110,000
Increase in income	$12,000
Payback period ($110,000 ÷ $12,000)	9.17 years

It turns out that it is going to take Jamal about 9 years to break even on his investment, at which point he'll be 42 years old. And if we were to add in interest on the student loans, his payback period would be slightly longer. Considering that most people hope to retire at age 67, that gives Jamal some time to use his increased earnings to save for retirement or purchase investment assets. Of course, if Jamal's income increases by more than $12,000, the payback period will be lower.

The payback period is helpful in making education decisions, but it shouldn't be the only factor considered. For example, the investment payback period calculation doesn't account for the value of Jamal's human and social capital that he'll obtain by finishing school. There's also the personal feeling of satisfaction that is hard to value.

As a result, Jamal might simply use the payback period calculation as a starting point and then explore other options such as:

- Select a different degree that might further increase his potential income after graduation.
- Work part-time during school to reduce the need for loans.
- Seek out scholarships to help cover the cost of tuition.

Jamal might also combine some or all of these options to reduce his payback period and obtain the highest return possible on his human and social capital investment.

Concepts in Action

Nedra is 33 years old. She completed her high school equivalency diploma (GED) and is interested in going back to college to obtain an associate's degree, which will take 2 years.

Nedra currently earns $24,000 but will cut back to part-time while in school. She'll use student loans to fund college costs, which she estimates to be $8,000 per year. Finally, Nedra believes she can increase her income by $8,000 per year after graduation.

Using the following table to make your estimates, what is Nedra's investment payback period?

Investment Payback Period

Expense Item	Amount
Lost income	
Household expense loans	
College tuition, books, and fees	
Total costs	
Increase in income	
Payback period	

Solution

Expense Item	Amount
Lost income	$24,000
Household expense loans	0
College tuition, books, and fees	16,000
Total costs	$40,000
Increase in income	$8,000
Payback period	5 years

It turns out that the return on Nedra's investment is a good one. It will take her approximately 5 years to pay back the educational expenses (a little longer if she includes paying interest on the student debt). She will be 40 years old at that time (2 years of school followed by 5 years of work), which will allow her to use her increased income for other purposes, including saving for retirement and buying investment assets.

End-of-Topic Assessment

Multiple-Choice Questions

1. Your ability to earn money over the working lifetime is called:
   - **a.** social wealth.
   - **b.** human capital.
   - **c.** human wealth.
   - **d.** social capital.

2. Mike earned his bachelor's degree in history 3 years ago and started working shortly thereafter as a teacher. Michelle earned her high school degree 5 years ago and took a job right out of school. Maria earned her associate's degree last year and started work right after graduation. During the next economic recession, who is generally most likely to be unemployed?

 a. Mike.

 b. Michelle.

 c. Maria.

 d. Each has an equal probability of becoming unemployed.

3. Which of the following statements about a person's health and wealth is *false*?

 a. Healthy people spend more money on food and exercise, which reduces their lifetime wealth accumulation.

 b. Unhealthy people tend to work less, which reduces annual earnings and savings.

 c. Someone who gets seriously ill may become disabled and be forced out of the labor market, which will reduce income and wealth accumulation.

 d. Unhealthy people may be forced to retire earlier than planned, which will reduce income and wealth accumulation.

4. Lance is 25 years old, well-educated, and a smoker. Rob is 35 years old, well-educated, and regularly texts while driving. Tammy is 40 years old, well-educated, drinks a glass of orange juice daily, and exercises regularly. Who has the most human capital potential?

 a. Lance.

 b. Rob.

 c. Tammy.

 d. Given their educational achievement, they are all similar.

5. Nick, a skilled welder, had been working for 12 years in a factory that recently closed. This has caused high unemployment in his town and region. If Nick is concerned about maximizing his human capital and lifetime wealth accumulation, which action would be most beneficial?

 a. Relocate to a place where his welding skills will be valued in the marketplace.

 b. Attend community workshops to learn how to manage household expenses with less income.

 c. Lose weight and improve his grooming to enhance his perceived human capital.

 d. Increase his posts to social media websites so that others will be more aware of him.

6. Which of the following statements is *true*?

 a. Converting human capital to financial wealth depends on wise planning and management.

 b. Just before retirement, your financial wealth and human capital are both at their maximum levels.

 c. As your financial wealth increases, your human capital remains unchanged over your life span.

 d. As you age, your financial wealth remains constant but your human capital declines.

7. Takashi is a foreign-exchange engineering student. His English skills are limited but given his major in college, this has not been a big problem. Jorge is also a foreign-exchange student. He is studying finance and is active in his fraternity. Kim is not enrolled in college. She works 40 to 50 hours a week as a warehouse supervisor; when she is not working, she prefers reading books. Who is most likely to have the highest social capital today and in the future?

 a. Takashi.

 b. Jorge.

 c. Kim.

 d. Both Takashi and Jorge because they are enrolled in college.

8. __________ connects you with people with whom you would not usually socialize.

 a. A formal network

 b. Bonding social capital

 c. Bridging social capital

 d. Extended capital structure

9. Barbara is considering two career and educational options, both of which she is excited about. Both options would cost approximately $86,000 in tuition, room, living expenses, books, travel, and fees. Pursuing Option 1 would lead to a job after graduation earning approximately $35,000 per year. Option 2 would lead to a job after graduation earning approximately $40,000 per year. Based on this information, which option has the shortest payback period?

 a. Option 1.

 b. Option 2.

 c. Option 1 and Option 2 have equal payback periods.

 d. Not enough information is given to answer the question.

10. Ruby, age 50, is considering going back to school. She would like to retire at age 67. She currently earns $50,000 per year. If she goes back to college and completes a graduate degree, she will earn $55,000 per year. If the total cost of the graduate degree is $75,000, Ruby should:

 a. go back to school because the net increase in human capital is greater than the cost of the education.

 b. not go back to school because the cost of the degree exceeds the extra income she will earn over her working life.

 c. go back to school because any investment in human capital is a wise money-management decision.

 d. only go back to school if the time and effort will result in an increase in personal satisfaction and fulfillment.

Adventures in Personal Finance

Short Answer

1. Take an inventory of your health and answer the following questions:

 a. Do you consider yourself healthy? Do your health-related habits get in the way of your work or studies?

b. Identify three things that you could begin doing now that would increase your health and hence your human capital.

2. Everyone owns assets. Examples include computers, clothing, and other things you use daily. What security or insurance do you have in place on these assets? Now consider your human capital. What security or insurance do you currently have to protect your human capital?

3. **Writing** Establishing, maintaining, and monitoring your social capital is important. Write a summary describing your relationships with the closest people in your life. What could strengthen those relationships?

4. The **Bureau of Labor Statistics** and the **U.S. Census Bureau** track information on earnings by occupation and education. See if you can rank (from highest to lowest) the occupations based on their average annual income.

______ **a.** Personal financial advisor.	______ **f.** Police officer.
______ **b.** Dentist.	______ **g.** Construction manager.
______ **c.** Massage therapist.	______ **h.** Lawyer.
______ **d.** Social worker.	______ **i.** Kindergarten teacher.
______ **e.** Physician.	______ **j.** Electrical engineer.

Explore

1. **Calculate** **Writing** Take an inventory of your assets—the things you own. What are they approximately worth? Now calculate the value of your human capital. A rough estimate of your human capital is your annual pay (or expected annual pay after you graduate) divided by 0.06. How does this number compare to the value of your other assets? Summarize your calculations and write one to two paragraphs on what you found.

2. Conduct an Internet search using your name as the search term. Based on what you see about yourself, would you feel comfortable if you knew your current and future employers were looking at the same material, including social media web page(s)? Would they conclude that you are professional and a perfect candidate for the job, or would they have reservations? Do you think the image portrayed of you is accurate? If not, what do you need to change?

Expanded Learning Activity

Calculate Estimate the payback period for your educational investment. Specifically, calculate how much tuition, books, fees, and other expenses will be before you complete your desired schooling. Do not include these expenses if someone else is paying these bills (grants, scholarships, employer, and parents). Add in any student loans you have taken out. You can also include what you would be making if you were working instead of attending school, but only if you would be working. The total approximates your investment in education.

Next, look at what you realistically will be earning after you graduate in your desired field. Use information from the **U.S. Census Bureau**, **Bureau of Labor Statistics**, and your school's career center to determine your likely annual salary. Subtract this from what you would earn without your degree (use the minimum wage or approximate a wage of $10 per hour). The difference is the ballpark annual return on investment. Divide the total costs by the annual increase in earnings, and this is your payback period.

a. How long will it take you to pay back the investment, or earn back all of the money you have invested and will invest in your education?

b. Does it seem like a good investment? Can you think of another investment that would give you as large of a return? Will the return on another investment last as long?

c. What are some things that you could do that would make your educational investment even better? Can you reduce the costs, or increase the annual return by redirecting your studies or relocating after you graduate?

Financial Risk Tolerance and Financial Goal Achievement

LO 1.3 Discuss how financial risk tolerance relates to financial goal achievement.

Almost everything that you do during your financial journey entails some degree of risk. **Risk-taking** refers to doing something that involves the possibility of a gain or a loss. Thus, **risk** is the uncertainty associated with any physical, social, emotional, environmental, labor market, or financial activity. For those interested in accumulating wealth (money, real estate, and other assets) over their lifetime financial journey, being willing to take calculated financial risks can be an important internal finance characteristic. People who are unwilling or unable to be at least somewhat aggressive when making financial decisions tend to fall short of their financial dreams. Of course, this is a generalization. For instance, you might know of someone who inherited a large amount of money from a relative and is set for life without taking a risk. For most people, though, taking calculated risks is essential to reaching financial goals.

Financial Risk Tolerance

Risk tolerance is one of those terms that everyone seems to understand, but few can define with clarity. Let's fix that. **Financial risk tolerance** refers to your willingness to engage in a behavior that entails the possibility of a financial loss. If asked, "Are you willing to invest money in the stock market?" your answer will indicate your financial risk tolerance. If you say, "Of course, I am willing to do that," your risk tolerance is greater than someone who says, "No way, the stock market is too risky."

Financial Risk Scale

Here are a few things you should know about financial risk tolerance (see **Helpful Hint**):

HELPFUL HINT

Just because you like to take risks in other areas of your life doesn't mean that you're willing to take financial risks. For example, someone who likes to go rock climbing may not be willing to invest in the stock market.

1. Your financial risk tolerance lies somewhere on a low-to-high risk scale.
2. Your risk tolerance often changes over time. As your financial knowledge and experience increases, your tolerance for financial risk will also increase.

These statements suggest that people who take the time to learn about financial topics and put their new knowledge to work can jump-start their financial journey.

- Financial knowledge creates confidence.
- Confidence helps you engage in new behavior.
- New behaviors provide greater experience.
- Experience produces understanding.

It is this process, as shown in **Illustration 1.3.1**, that will help you move up the risk-tolerance scale. In turn, this new, higher financial risk tolerance will help you to engage in financial behaviors that usually have greater long-term payoffs.

Luck or Effort?

You might have a friend who says something like, "Sure, those who take risks make more money than others, but really it is nothing more than luck." The financial plan for those who believe that luck, rather than knowledge and experience, determines financial outcomes often involves gambling, purchasing lottery tickets, or counting on a big unexpected inheritance. It is important

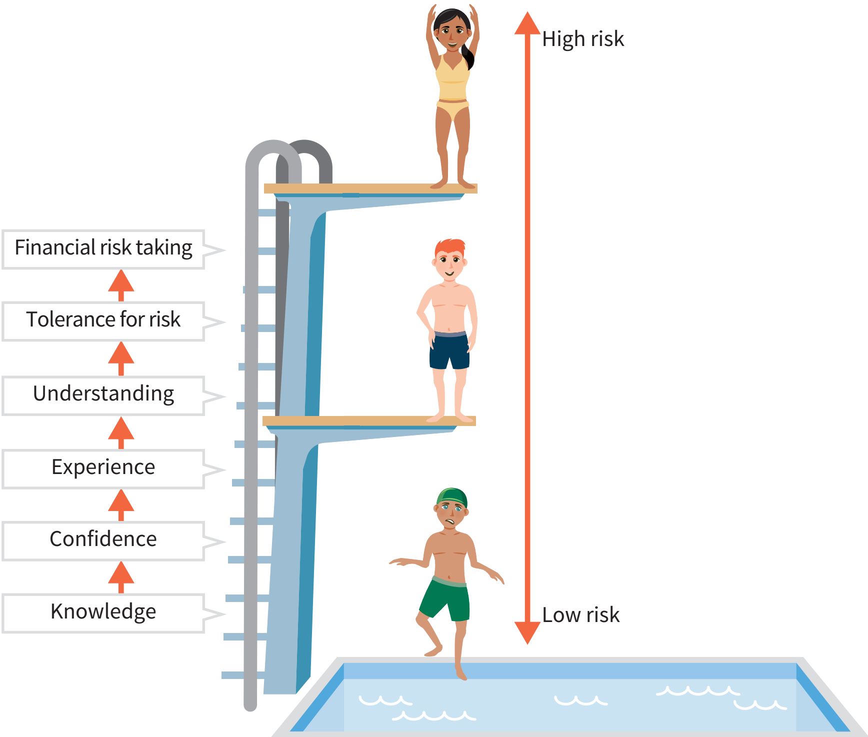


ILLUSTRATION 1.3.1

The Process Leading to an Increased Willingness to Take Financial Risks

that you decide where you stand on this issue. Is your financial future determined primarily by your efforts or by chance? Those who say "chance" typically often make uninformed financial decisions or financial decisions that benefit them in the short run. When they invest, they allocate their money on hunches and whims. Unfortunately, those who rely on chance often fail to do things that build long-term wealth because they don't believe their actions will influence how much wealth they will have in the long run. They buy things they think are investments but turn out to be assets that fall in value. Ironically, they may even perceive that working hard brings them good luck! Consider the following examples:

- Your Uncle Mike buys $10 in lottery tickets every week. His odds of hitting it big are very (very!) low. He might win $100 or even $1,000 every few years, but over time his $10 "investment" is almost certain to return nothing.
- Your Aunt Roberta takes $10 per week and invests it in a mutual fund that returns 5% annually, a low-risk investment. If Aunt Roberta consistently saves weekly for 30 years, she'll end up with over $36,000. Uncle Mike will surely envy those lucky numbers!

Is Aunt Roberta's wealth based on luck? No way. To achieve this outcome, Aunt Roberta needed to research the marketplace to find a reasonable investment that matched her financial risk tolerance. We will discuss in later chapters where and how to find investment alternatives that match your financial risk tolerance, time horizon, and goals.

Financial Risk Tolerance and Wealth Accumulation

Life is full of trade-offs. In the financial marketplace, the primary way to accumulate a certain level of wealth is to take informed financial risks with your savings (see **Helpful Hint**). You must make a choice between security and uncertainty. This brings us back to financial risk tolerance. Are you willing to be adventurous? Are you willing to make an investment that might lose some money in return for potentially making a larger gain?

HELPFUL HINT

Regardless of whether they are high-risk or low-risk endeavors, you should always understand the risks and potential rewards.

As shown in **Illustration 1.3.2**, the relationship between wealth accumulation and risk tolerance is generally positive. So, unless you are willing to take some financial risk, it is going to be difficult to achieve your financial dreams and goals.

- Low-risk investments tend to generate low amounts of investment income and wealth, also known as *investment returns*, and are very predictable.
- If you want greater returns—which will help you to reach your financial goals—you'll need to select investments that have more risk or more volatility, and are less predictable.
- Most importantly, you'll need the risk tolerance to make these investments.

ILLUSTRATION 1.3.2

The Positive Association Between Wealth Accumulation and Financial Risk Tolerance

Let's go back and look at Uncle Mike's situation. Uncle Mike likes playing the lottery. You can bet that he perceives the risk of playing as being very low. He is wrong. The odds of winning typically are one in millions! In this case, perception does not match reality, and clearly Uncle Mike does not understand the risk. Lotteries are very risky, yet many people prefer playing. Why? It comes down to financial knowledge. Most people who play simply are unable to grasp the concept of risk and return. Yes, for some, playing is a form of entertainment, but as a financial plan, lotteries are a horrible deal. In the end, it is a person's willingness to understand and take thoughtful financial risks—with higher potential rewards—that determines long-term financial outcomes.

If your current financial risk tolerance is low, are you doomed to financial failure? Absolutely not! Think of your financial journey as a work in progress. It will take some time to reach your goals. If it's true that those who are willing to take greater financial risk accumulate greater wealth over time, then it also means that the surest way for you to start working toward your goals is to consider ways to better understand the workings of the financial marketplace. It is through this understanding that financial risk tolerance increases (see **Helpful Hint**).

HELPFUL HINT

Keep learning about financial topics; it can be fun and the payoff is sure to be large.

Risk Perception and Risk Preference

By now, you should at least be considering the possibility that your willingness to take informed financial risks is a key factor in how quickly and effectively you might reach your financial dreams and goals. In addition to risk tolerance, two other risk-related factors are also important: risk perception and risk preference.

The Connection between Risk Perception and Risk Preference

How you perceive things shapes your preference and willingness to engage in an activity. For example, say you're invited to a potluck lunch and one of your friends brings sardines (a type of small fish).

- You've never eaten sardines before, and after you smell them, you aren't so sure you want to try.
- By simply looking at and smelling sardines, you perceive that they probably taste bad. This is your **risk perception**, which is your cognitive evaluation of the potential gains and losses associated with a course of action.
- Your immediate reaction may be to avoid sardines. This is your **risk preference**, which is wanting something else compared to the option available.

Someone else may perceive sardines as risky but have a preference to dive in and try it. As shown in **Illustration 1.3.3**, your willingness to take a risk—in this case, a tasting experience—is influenced by your initial perception and your ultimate preference.

ILLUSTRATION 1.3.3

How Risk Perception and Risk Preference Determine Risk Tolerance

Perception and Financial Information

Perceptions are also shaped by the information that is most readily available to us. For example, which activity is more likely to result in death in the United States in a given year, driving a car or being pregnant? The odds of dying from a car accident in any given year are 1 in 47,718. The odds of dying from pregnancy or pregnancy-related complications are 1 in 4,762. Was your perception of these risks accurate? Which of these two events do you hear more about, car accidents or pregnancy complications?

Now consider your perceptions of the financial marketplace.

- If you are unfamiliar with the services and products used to manage money, terms such as stocks, bonds, mutual funds, and annuities may prompt the same reaction you might have to your first encounter with sardines.
- That is, you might perceive financial products as quite risky.
- The result may be a preference to avoid these types of assets.
- However, gaining knowledge about financial products can change these initial perceptions and resulting preferences.

It's important that you get the facts and try some things before you decide whether you will do something. The sooner you realize that initial risk perceptions are often false in the financial world, the better off you will be.

Concepts in Action

How well are you able to perceive risks? Make a quick guess to answer this question: From 1824 to 2013, how many years did the stock market generate a positive return for the year?

Answer choices:

a. The stock market returned a positive annual return for less than 33% of the time.

b. The stock market returned a positive annual return about 50% of the time.

c. The stock market returned a positive annual return for more than 67% of the time.

What is your best guess? Based on your guess, do you think the stock market is a wise investment?

Solution

If you answered "a," which is that the stock market had positive annual returns less than 33% of the time, you likely have a low willingness to take on risk by investing in the stock market. If, on the other hand, you chose "c," which is that the stock market had positive annual returns at least 67% of the time, you probably have a higher willingness to take on risk by investing in the stock market.

From 1824 to 2013, the stock market actually generated a positive annual return approximately 71% of the time. With this factual knowledge, your risk perception and willingness to take risk may change.

End-of-Topic Assessment

Multiple-Choice Questions

1. Financial risk tolerance can be considered:

- **a.** on a scale that can change over time.
- **b.** as a fixed category, such as low or high.
- **c.** as a passing mood that changes daily.
- **d.** as a trait that declines over time.

2. Nellie just took a risk-tolerance quiz online and learned that her risk tolerance is in the bottom 10% of all those who have taken the quiz. She should:

- **a.** be worried because it is unlikely that her risk attitude will ever increase.
- **b.** be satisfied knowing that she should only invest in low-risk financial products.
- **c.** not be worried because risk tolerance matters much less than risk preference for those whose goal is to achieve lifetime wealth.
- **d.** not be worried because her risk tolerance will increase as her knowledge and experience increase.

3. Terry loves to ski, play competitive dodgeball, and go mountain climbing. If asked, Terry would consider sky diving as a hobby. Which of the following statements about Terry is *true*?

- **a.** Terry's financial risk tolerance is likely very high.
- **b.** Given the inverse relationship between financial risk tolerance and general behavior, Terry's financial risk tolerance is moderately low.
- **c.** Terry's perception of financial risks mirrors that of her non-financial behavior.
- **d.** It is impossible to know what Terry's financial risk tolerance is given the information provided.

4. Who is most likely to accumulate more wealth?

- **a.** The person who takes a slow-and-steady low-risk approach.
- **b.** The person who is willing to take big gambles.
- **c.** The person who is willing to take risk after adequate research.
- **d.** The person who likes to gamble and play the lottery.

5. Low-risk investments most often:

- **a.** lead to the best long-term gains.
- **b.** are generally favored by those with high levels of experience and knowledge.
- **c.** generate the lowest returns.
- **d.** provide the greatest potential to generate wealth over the life span.

6. Which of the following relationships accurately describes the role of financial risk-taking and wealth accumulation?

- **a.** The greater the return required, the greater the risk that must be taken.
- **b.** The greater the risk taken, the lower the long-term return.
- **c.** The lower the return, the higher the risk.
- **d.** The greater the risk taken and the lower the long-term return, the higher the wealth accumulation.

7. What helps explain why some people play the lottery even when they know the odds of winning are astronomically low?

- **a.** They view playing the lottery as a form of entertainment.
- **b.** They have a relatively low level of financial literacy.
- **c.** They prefer low-risk investments.
- **d.** They have a relatively low level of financial literacy and they view playing the lottery as a form of entertainment.

8. When Todd thinks of investing in the stock market, he equates the action with terms like *loss*, *risk*, and *danger*. This is an example of Todd's:

- **a.** risk tolerance.
- **b.** risk preference.
- **c.** risk perception.
- **d.** risk capacity.

9. Given a choice, John would like to invest in a safe and secure investment compared to investing in the stock market. This is an example of John's:

- **a.** risk preference.
- **b.** risk perception.
- **c.** risk tolerance.
- **d.** risk need.

10. Recently, a major fast-food chain saw its sales drop dramatically after the media reported that hundreds of people got sick eating at one location. In fact, sales across the country fell although competing chains saw no change in sales. This can be attributed to:

a. a sudden change in preference for different foods among consumers.

b. a general change in perceptions about the chain's quality of food.

c. a decrease in willingness to eat at fast-food chains among consumers.

d. a increase in firsthand experiences of food quality among consumers.

Adventures in Personal Finance

Short Answer

1. What does the term uncertainty refer to in the context of financial decision making? Make a list of five to seven behaviors in which the outcomes are uncertain.

2. Describe what is meant by risk perception, risk preference, and risk tolerance. What is the relationship among these three concepts?

3. Think about something that you might like to do in the future that involves some risk (such as traveling to an exotic country or trying a new sport). Consider each of the following aspects of the activity. Rate them on a scale of 1 to 10, with 1 being the least risky and 10 being the riskiest.

a. Perception of risk.

b. Preference for the risk.

c. Willingness to take the risk.

Explore

1. **Writing** Write a brief reaction paper to the following statement: If you take recreational risks, you are also more likely to take financial risks. Be sure to address the following questions: Do you agree with this statement? What evidence exists from your personal experience that supports your position? What does the research say about this relationship?

2. **Groupwork** Conduct an Internet search using the phrase "IRTA at University of Missouri." Take the free risk-tolerance questionnaire at this site, making sure to answer all questions honestly based on your current situation. When you finish the questionnaire, you'll receive a risk score. How accurate is the score in your opinion? Talk to others in class about the accuracy of their risk scores.

3. **Writing** Search the Internet to find the odds associated with events that are commonly reported in the news (some of these events may not be financial). Write a brief report showing each event and its corresponding odds of occurrence in a year. Which event was more likely? Is your perception of the likelihood of these events accurate? Did you think any of these events were more or less common than they really are? Be sure to report if the odds matched your initial expectations.

Expanded Learning Activity

Have you heard of Bernie Madoff or **Enron Corporation**? Bernie Madoff stole billions of dollars from investors. Enron was a company that faked its sales and earnings. The company eventually went bankrupt, and investors lost billions of dollars. People remember these things because they are, in fact, quite unusual. However, people come to perceive these events as being representative of all aspects of the financial markets. How does this insight help explain why some people think the stock market is a big gamble? Do some research to see how many large U.S. corporations went bankrupt last year. Also look at how much money people lost to investment fraud compared with how much money is invested in the stock market. If you were giving advice to novice investors, how would you counsel them about their perceptions of companies going out of business and investment advisors stealing their money?

Financial Goals and Time Perspective

LO 1.4 Use your unique time perspective to create SMART financial goals.

If you were in the middle of the wilderness with no cell-phone service, would you know in which direction to go? You would if you had a map and compass as your guides. A map can give you a general idea of what the journey will be like, such as how steep the mountains are, if there are lakes or rivers that you will need to go around or across, and how many miles you will need to travel. However, in the middle of the wilderness, your environment and surroundings will seem very different from the map. You'll only be able to see a small piece of your larger journey. Yet, referencing the map and working with your compass, you'll be able to set short-term targets, such as a pond a few hundred feet away. And, as you achieve each short-term target, you'll set a new one using the map and compass until you reach your destination.

The same can be said about your financial journey. You need a map and compass to set your path and make sure you are staying on target. You can do this by setting SMART financial goals.

Setting SMART Financial Goals

As shown in **Illustration 1.4.1**, a **SMART goal** is:

- **Specific: Documenting the when, what, where, and how aspects of the goal.** For example, it is one thing to say that you want to retire rich. It is better to say that you would like to retire at age 67 in Florida with an annual income of $80,000.
- **Measurable: Attaching a quantifiable standard for achieving the goal.** If you want to retire with an annual income of $80,000, how much do you need in savings to meet this objective? For example, you may need $1,000,000 saved for retirement to generate $80,000 annually in pension and investment income.
- **Attainable: Being realistic about whether you can really achieve the goal.** Although $1 million may seem unrealistic, by breaking it into small monthly savings, you may only need to save a few hundred dollars each month.
- **Relevant: Developing only those financial goals that are the most crucial to improving your financial situation today and in the future.** Planning to buy a mountain home in Montana, when you expect to spend most of your later years enjoying the Florida sunshine and beach life, is not necessarily a relevant goal.
- **Timely: Having the ability to meet the goal in a reasonable amount of time.** It will be difficult to achieve your retirement goal if you start to plan for retirement at age 66.

With a solid understanding of how to set SMART goals, you are ready to move forward on your lifetime financial journey. Using the terminology of an explorer, this is similar to getting your map and compass ready for a long hike.

- Your map consists of your **long-term goals**, a big-picture idea of where you want to be financially.
- Your compass is the **short-term goals** and **daily tasks** that represent the immediate actions needed to reach longer-term goals. Sometimes these tasks are called **financial objectives**—things that need to happen along the way toward reaching a financial goal.

In the next section, we'll look more closely at the length of your financial goals, or what financial planners call a goal time horizon.

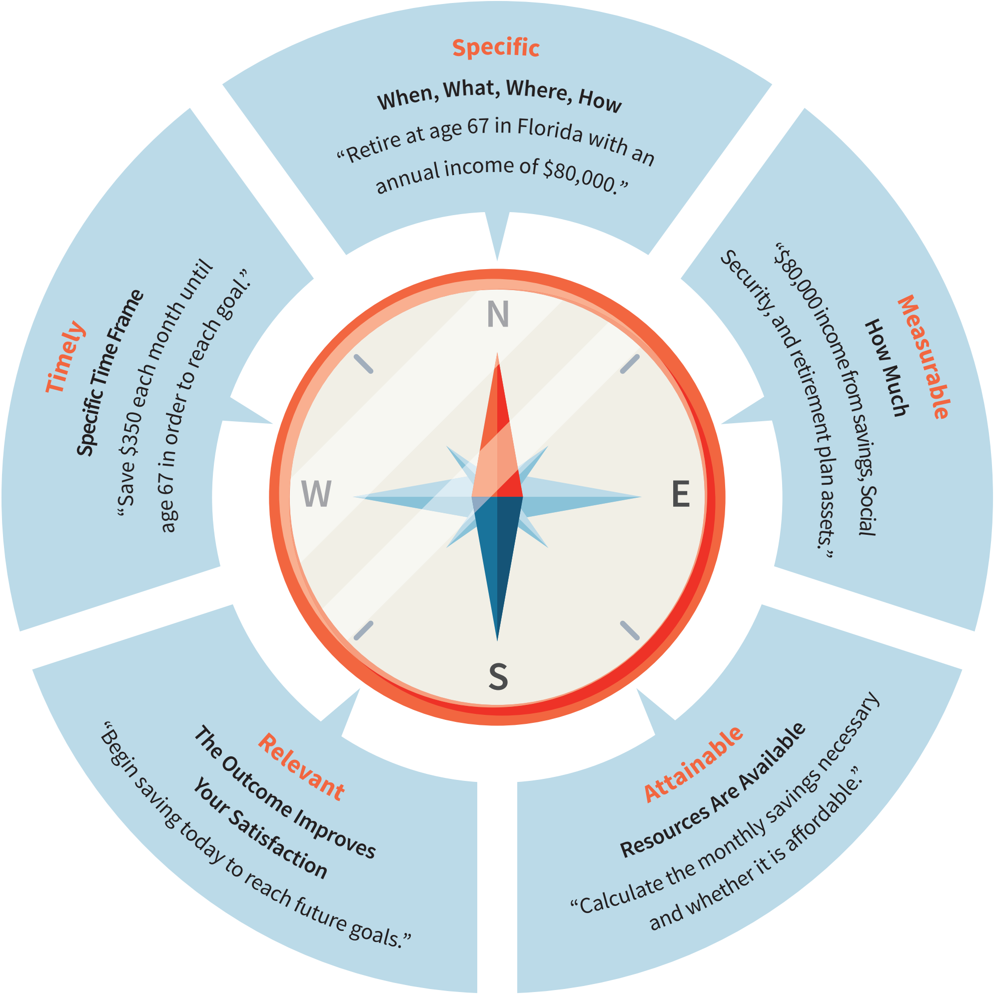


ILLUSTRATION 1.4.1

Aspects of a SMART Goal

Concepts in Action

Lamar is beginning to think about a vacation in 6 months and is excited about all the alternatives available. He has come up with a few options. He has narrowed his destinations to either Florida or Arizona. If he goes to Florida, he wants to learn how to paddleboard. If he goes to Arizona, he wants to learn to play golf. Lamar is not sure about how to proceed. Choose one of the locations and write SMART goals for Lamar. Be sure to include information that he needs to think about before finalizing his vacation objective.

Solution

Lamar needs to think about how much time he has available for his vacation. He also needs to establish a budget. Assume that he lives in the Midwest. The airfare to either Florida or Arizona is likely to be about the same because both locations attract visitors during the winter months. As such, travel costs will be higher during these months and lower during the summer. Of course, Lamar might decide to drive or take a bus, which could reduce his costs but extend the amount of time on the road.

Based on a travel budget of $900 and a daily budget of $150, a SMART goal for Lamar might look something like the following:

- Specific: Visit Clearwater Beach, Florida, from May 5 to May 12, staying at the Florida Beach Resort. Lamar will fly into Tampa Bay on the morning of May 5 and return the afternoon of May 12.
- Measurable: The total cost is $900 + ($150 × 7) = $900 + $1,050 = $1,950.
- Attainable: This will require saving $325 per month beginning immediately.
- Relevant: Florida is one of Lamar's top travel destination choices.
- Timely: Lamar has 6 months to complete this goal.

Thinking About Time

There are two approaches that can be used when it comes to thinking about the timing of goals:

1. Think about the time it will take to reach a goal. This can be days, months, or years.
2. Think about timing from a psychological perspective (we'll discuss this more in just a bit).

Let's start by looking at the planning aspect or what is known as a goal time horizon.

Goal Time Horizon

When thinking about how you'll earn, spend, and save for the future, it's important to match your financial goals with a realistic **goal time horizon**. Think of this as the time between creating a goal and achieving the goal.

- Let's say that you want to buy a car.
- You've got $1,000 saved, but you'll need an additional $3,000.
- If you give yourself 2 years to save the money, then your goal time horizon is 2 years.

As shown in **Illustration 1.4.2**, time horizons can be short, long, or somewhere in between.

ILLUSTRATION 1.4.2

Goal Time Horizon Guidelines

Goal Time Horizon	Length
Ultra-short term	9 months or less
Short-term	More than 9 months to 2.5 years
Short-intermediate term	More than 2.5 years to 5.0 years
Long-intermediate term	More than 5 years to 10 years
Long-term	More than 10 years

Source: J. E. Grable, K. Archuleta, and D. A. Evans, "Hey Buddy, Do You Have the Correct Time (Horizon)?" *Journal of Financial Service Professionals* (*63*(4), 2009), pp. 49–56.

An important rule comes into play when considering goal time horizons: **If your goal has an ultra-short or short time horizon, then you need to make cautious financial decisions.** Think back to the car savings example.

- It would be foolish to take your $1,000 in savings and invest it in the stock market in hopes of doubling or tripling your money. Why? Because stocks, as we discuss later in this text, can be volatile and generate unexpected losses.
- That is, although stocks can quickly go up in value, they can just as easily, and often do, lose value just as fast.
- Therefore, if you did make the investment and it turned out badly, you would not have enough time remaining to make up the loss.

On the other hand, if you have 10 to 20 years to reach your goal, you can take a lot more risk. The reason is because most investments generally increase in value over the long term, even if they experience short-term losses.

Psychological Time Perspective

For the most part, your goal time horizon is a guide for matching financial tools and techniques to achieving specific results. However, you also need to take a step back and consider another important element of time: your psychological time perspective. As shown in **Illustration 1.4.3**, most people view the world primarily from one of three time perspectives or lenses (see **Helpful Hint**):

HELPFUL HINT

Your specific time perspective colors almost everything that you do each day. Few people even know that they have a time perspective preference!

1. **Past-oriented:** based on memories, whether good or bad. Those who view past events negatively have the most trouble staying on their financial path.
2. **Present-oriented:** based on either (a) a **hedonistic perspective** (doing things for pleasure, the experience, and excitement of the action) or (b) a **fatalistic perspective** (unable to visualize a meaningful future). Understandably, those with a fatalistic outlook sometimes have a hard time reaching their long-term financial goals.
3. **Future-oriented:** based on a calculation of the consequences of actions in terms of a future payoff. Those with a future orientation tend to be very goal-oriented. As such, they might do a better job of managing their personal financial situation in the long run but may miss out on some opportunities along the way.

ILLUSTRATION 1.4.3

Time Perspective Preferences

Time Perspective	**Past**	Positive	Loves thinking about all the fun things that have happened in the past.
		Negative	Fixated on all the bad things that have happened in the past.
	Present	Hedonistic	Living life day-to-day for pleasure.
		Fatalistic	Living for today with no meaningful future.
	Future	Goal Oriented	Willing to forgo pleasures today for happiness in the future.

Source: Adapted from P. G., Zimbardo and J. N. Boyd, "Putting Time in Perspective: A Valid, Reliable Individual-Difference Metric," *Journal of Personality and Social Psychology* (77, 1999), pp. 1271–1288.

Although everyone has a dominant time perspective, it is possible to have more than one time perspective. Those who hold a combination of time perspectives are sometimes the best at managing their financial situation.

The Marshmallow Experiment

Imagine a young child sitting alone in a room. A plate sits empty on a table. The door opens and a researcher walks into the room. The researcher is holding a marshmallow. As the researcher places the marshmallow on the plate, she tells the child, "Here is a marshmallow. You may eat this now, but if you can wait until I get back and not eat the marshmallow until then, I will bring you another one and you can have both." The researcher then leaves the room. What do you think might happen?

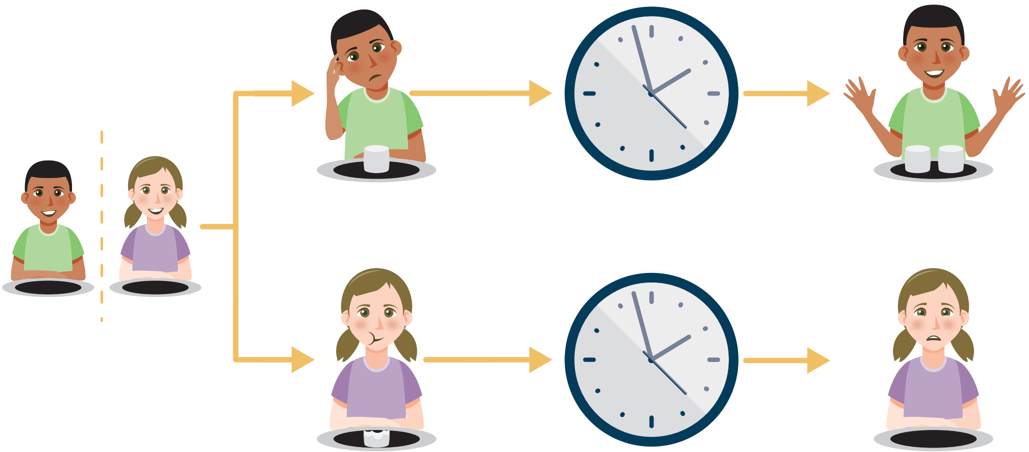
Before sharing the results of the experiment, a little background is in order. This experiment (called the **marshmallow test**) was first undertaken by Walter Mischel, a Columbia University faculty member, in the 1960s. What was Mischel attempting to do? He was tempting young children with an almost irresistible treat. At the core of the temptation is the notion of time perspective. Mischel wanted to determine who was willing to forgo immediate rewards for a larger payoff in the future:

- It turns out that two-thirds of the children ate the marshmallow before the researcher returned. Subsequent research indicates that about 70% of Americans—both children and adults—fall prey to temptation. They tend to be impulsive and quick acting.
- Fifteen years after Mischel's innovative study, the children who did not initially eat the marshmallow fared much better. Mischel was startled to find that those with a future time perspective scored, on average, 250 points higher on the SAT college placement test than the impulsive children.
- Those who were future-oriented reported being more content and generally happier than the children who ate the marshmallow immediately (see **Illustration 1.4.4**).
- The same is likely true in relation to personal financial behavior. Those who can wait a bit often earn more and accumulate more wealth.

In later studies, Mischel provided children strategies (for example, sitting on their hands) to help them set goals and visualize how great two marshmallows would be. By doing these things, many more children were able to resist temptation and exhibit future-oriented behaviors.

ILLUSTRATION 1.4.4

Predicting Time Perspectives and Well-Being by Eating Marshmallows



Maintaining Commitment to Your Goals

It may seem obvious, but following through on your plans is essential to accomplishing goals. Your **commitment** and **motivation** to do this largely depends on how important achieving your goal is to you. There are two ways to increase the importance of a goal. You can focus on:

1. **External factors:** Examples include financial bonuses if you reach your goal, or sharing your goal with others, either in person or through social media.
2. **Internal factors:** Examples include self-improvement or visualizing attainment of your goal and what that will mean to you.

Internal factors are often more powerful motivators than external factors and relate to how well you are able to visualize attainment of your goal and what that will mean to you (see **Helpful Hint**). Remember, the "R" in SMART stands for relevant goals, that is, setting financial goals that have high personal importance. As shown in **Illustration 1.4.5**, external and internal factors work together to increase your goal commitment, which leads to goal implementation motivation.

HELPFUL HINT

Clearly identifying a future that is important to you is essential to staying committed to achieving your goals.

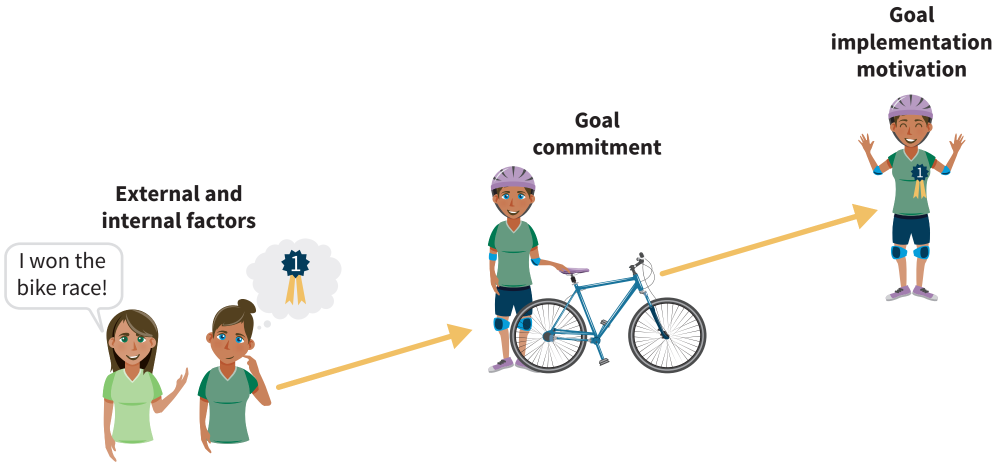


ILLUSTRATION 1.4.5

External and Internal Factors Shaping Goal Commitment and Motivation

Self-Efficacy

You also need to believe that you can achieve your goal. Psychologists refer to this as **self-efficacy**, or how well you believe you can do something. Here are tips to help you achieve your goals:

- Complex goals should be broken down into less complex objectives and tasks.
- By focusing on those things that you can control, you increase goal attainability (the "A" in SMART).
- By achieving several smaller steps, you provide yourself with valuable feedback regarding progress toward achieving your goal.

Feedback on your progress can come from other people, such as a supervisor, friend, or spouse, or it can come from achieving milestones, such as smaller tasks that lead to one larger goal. No matter where you want to be financially, make sure you set goals to get there.

Working Backward to Go Forward

When setting financial goals, sometimes it is best to work backward. Say Jake has a goal of buying his first car in 3 years, a short- to intermediate-term goal. He'll need to save money for a down payment as well as obtain a car loan. How should Jake proceed?

- To maintain commitment to this goal, Jake may find it easier to establish some ultra-short-term objectives, such as those shown in **Illustration 1.4.6**.
- Meeting these objectives will help Jake stay involved and committed to achieving his longer-term goal.
- By setting achievable objectives and working toward achieving them, Jake will improve his circumstances and opportunities for the future.

ILLUSTRATION 1.4.6

Objectives to Help Jake Reach His Goal

Goal	**Purchase a Reliable Car in Three Years**			
Objectives	Work more hours to earn more money	Establish a good credit history	Research the best car to purchase	Save a minimum of 20% from the extra work

End-of-Topic Assessment

Multiple-Choice Questions

1. "I want to retire with $1,000,000 in the bank" represents what element of a SMART goal?
   - **a.** Specific.
   - **b.** Timely.
   - **c.** Attainable.
   - **d.** Realistic.

2. Bud is 43 years old. He would like to retire at age 67 and move to the Caribbean. What is Bud's goal time horizon?
   - **a.** Short term.
   - **b.** Short-intermediate term.
   - **c.** Intermediate-long term.
   - **d.** Long term.

3. Which of the following is the reason those with a short-term time horizon should be cautious when investing their assets?
   - **a.** The tax rate for short-term gains can reduce the value of the assets.
   - **b.** If the value of the assets were to fall, there may not be enough time to recoup the loss.
   - **c.** It takes too much time to match the risk profile of a portfolio to the risk tolerance of the investor.
   - **d.** This rule only applies to older investors who may not live long enough to enjoy the benefits of their investments.

4. Short-term financial goals:
   - **a.** help you reach your short-term financial objectives.
   - **b.** are designed to help you develop SMART goals.
   - **c.** help you reach your long-term goals.
   - **d.** are more challenging to meet compared to long-term goals.

5. When asked, Sancho strongly agrees with the following statement: "I often think of what I should have done differently in my life." Given his answer, Sancho most likely holds what type of time perspective?
   - **a.** Past.
   - **b.** Present.
   - **c.** Future.
   - **d.** Transcendental.

6. Arnold rarely thinks about his future. He loves to work out and spend time with friends living in the moment. Given his orientation, which of the following best describes Arnold's time orientation?
   - **a.** Past-positive.
   - **b.** Present-fatalistic.
   - **c.** Present-hedonistic.
   - **d.** Future-transcendental.

7. When viewing general life outcomes, who is more likely to fare better in the future?
   - **a.** Those who resist temptation today.
   - **b.** Those who give in to temptation today.
   - **c.** Those who resist formalizing goals today.
   - **d.** Those who are impulsive and quick acting.

8. Based on findings from the marshmallow test, about what percentage of Americans fall prey to time temptation (i.e., not willing to wait)?
   - **a.** 20%.
   - **b.** 50%.
   - **c.** 70%.
   - **d.** 90%.

9. Which of the following is an example of an external motivation factor?
   - **a.** Feeling good about yourself.
   - **b.** Receiving a bonus.
   - **c.** Reaching a dream.
   - **d.** Feeling good about yourself, receiving a bonus, and reaching a dream.

10. Which of the following statements is *true*?
    - **a.** A person's time orientation can never be changed.
    - **b.** Most Americans naturally tend to hold a future time orientation.
    - **c.** People who hold a past negative time orientation have a hard time saving for the future.
    - **d.** None of the answer choices are true.

Adventures in Personal Finance

Short Answer

1. Thinking of your current financial and life situation, name two long–term financial goals that you would like to achieve. Remember to write each goal using the SMART approach.

2. Match the following time perspectives to its correct description:

a. Past-negative.	**1.** You seek out pleasure, good times, and experiences when given the opportunity.
b. Past-positive.	**2.** You strive to reach your goals, almost at any cost.
c. Present-hedonistic.	**3.** You let past experiences and emotions upset you and sometimes feel regretful.
d. Present-fatalistic.	**4.** You would like to take control of your future but feel trapped and unable to change things today.
e. Future-oriented.	**5.** You love to daydream and think about the good things that have already happened to you.

3. Experts suggest that people can adapt time perspectives to different situations. For example, if you are attempting to change from a past-negative to a future-oriented time perspective, you could pay yourself $1 every time you correct a negative thought or regret. Develop a list of other strategies for altering time perspectives.

4. As you think about some of your accomplishments, describe:
   - **a.** How you defined the goal. Did you write the goal down, or was it just clear in your mind?
   - **b.** How challenging this goal was for you to accomplish.
   - **c.** What existing or new skills you needed to achieve this goal.
   - **d.** Why you were motivated to achieve this goal. What was the payoff for you?

Explore

1. **Writing** Not everyone believes that developing goals using the SMART approach is effective. Conduct an Internet search to find videos or websites that argue against SMART goal methods. Based on your findings, write one to two paragraphs discussing the advantages and disadvantages associated with using SMART to formalize goals.

2. Make a list of your 10 highest-priority goals and then search the Internet using "most popular goals." Click on two or three of the most popular sites and then list the top 10 goals shown on these sites. Of all the goals listed, how many are financial in nature? Now compare your list to the compiled list. What are the similarities and differences?

3. **Writing** Our discussion has only touched the tip of the iceberg in terms of time perspective. Visit Dr. Philip Zimbardo's website and complete the full time perspective inventory by typing in "Zimbardo Time Perspective Inventory." Print your final score. Write a brief narrative regarding the accuracy of your score in predicting your time perspective orientation.

Expanded Learning Activity

Writing According to psychological researchers, culture is an important factor that determines someone's time perspective. For example, children raised in households that promote sharing, giving, and strong work values often hold a future-oriented time perspective. On the other hand, children who are raised in households in which immediate gratification is the norm tend to use a present time perspective when making decisions. Other factors include age, gender, income, experience, and knowledge. All these elements point to the positive conclusion that time perspective can change to be more in tune with wealth accumulation, debt reduction, and overall increased financial well-being. Write a brief review of your own childhood, paying special attention to the way you made and were rewarded for choices. When writing your review, comment on whether you would make the same decisions today. If not, what has changed?

Psychology and Financial Well-Being

LO 1.5 Describe strategies to overcome mental biases and improve financial decision making and well-being.

Like most students, you probably have some longer-term assignments, such as papers and projects, that may take several hours to complete. You also likely have other demands on your time, including work and school activities. Have you started working on these assignments yet? For many students, the answer is "no."

The same "no" answer is also true for many people when asked about making decisions regarding their financial future. Yet planning for the future is essential to achieving short-, intermediate-, and long-term financial goals. In this topic, we first explore some reasons people might postpone action. We then present several methods to overcome this tendency and to improve decision-making capabilities, which in turn can help you achieve your financial goals.

Procrastination

Conflict Between the Present and the Future

Procrastination is placing more value on the present at the expense of the future. The conflict between choosing between today and the future is shown in **Illustration 1.5.1**.

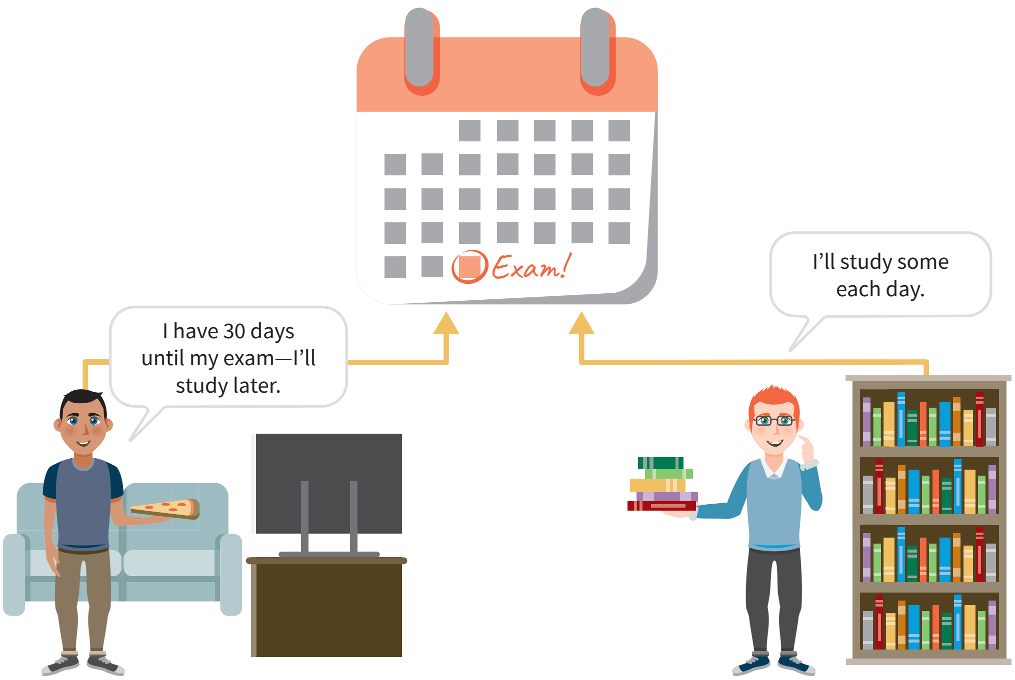
HELPFUL HINT

Although sometimes you might think you can't control how your time is spent, in most situations you actually do have choices.

- Procrastinating the start of a long-term assignment or project, whether at school or at work, is an example of how people often choose to spend their time doing those things that are most comfortable rather than most important.
- This short-run choice is often at odds with someone's long-term best interests (see **Helpful Hint**).
- Long-term outcomes are largely determined by the daily decisions people make.

ILLUSTRATION 1.5.1

Procrastinators Value the Present More than the Future



Hyperbolic Discounting

Procrastination can get so bad that when the time comes to act, some people often choose to put off doing something again and again. This happens because of **hyperbolic discounting**, in which as the time to act nears, the value of future benefits from taking action is perceived to decrease relative to other immediate alternatives. Consider the problem some people have maintaining their weight.

- Many people who want to lose weight struggle to maintain a healthy diet.
- They might pledge to cut down on food later, but when "later" comes they fall back into a pattern of eating impulsively. Often, it is only after a doctor informs them that they must change their food choices or risk serious health issues that they stick to a diet.

As this example illustrates, people tend to undervalue the future, relative to the present, and to procrastinate until some exterior influence, such as a deadline or a doctor's orders, forces them to act.

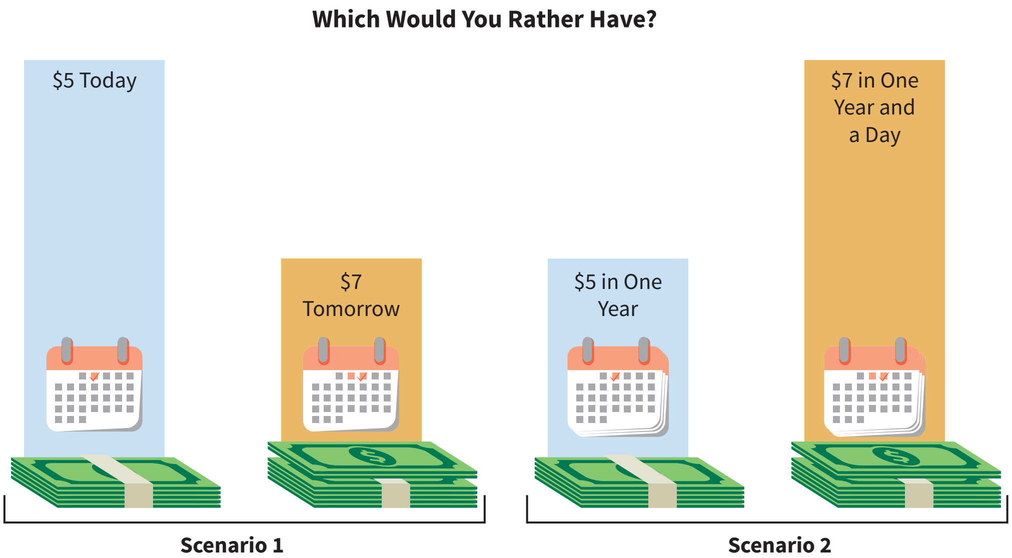
This same philosophy extends to financial decision making. Here's an example from the personal finance world. Let's say that someone offered you the following deal: "You can either have $5 today or $7 tomorrow." What would you take? Remember, there is no correct answer with this type of question. Now assume the same person comes along and asks, "Would you prefer $5 in 1 year or $7 in 1 year and 1 day?" Again, what would you answer?

- When asked nationally, as shown in **Illustration 1.5.2**, 66% of Americans took the $5 in the first situation, but they switched preferences and took the $7 in the second scenario.
- That really is not logical or consistent. **In either case, they would have received an extra $2 just by waiting a day**. Yet most people will not wait one day when faced with a short time horizon, but they will gladly wait the extra day when the time horizon is longer.

The inconsistency in waiting based on how close or far away the reward is (as measured by time) is an example of hyperbolic discounting.

ILLUSTRATION 1.5.2

Hyperbolic Discounting



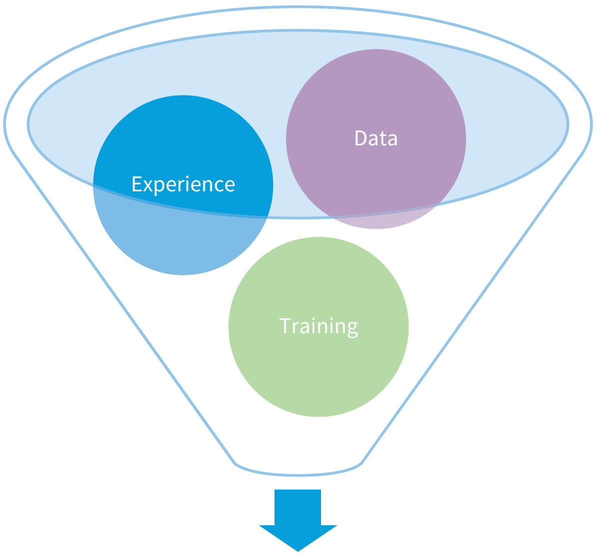
Heuristics

We all make many financial decisions each day. **Behavioral economists** study how people go about making these decisions. It turns out that our brains are wired to be efficient during the decision-making process. To simplify things, our minds use **heuristics** to make decisions more quickly and easily than if we were to labor over every choice. As shown in **Illustration 1.5.3**, heuristics act like a funnel that takes a lot of information and condenses things down to a decision-making shortcut.

- Heuristics are based on past experiences or learning that the mind applies to new situations.
- Most heuristics are automatic and rarely used with forethought.
- Although heuristics can help you make quick decisions, they sometimes lead to problematic choices and outcomes.

ILLUSTRATION 1.5.3

Elements of a Heuristic



Not surprisingly, most heuristics apply directly to financial management decisions. Consider the following examples.

- When making an estimate, always be conservative (don't be overly optimistic).
- Never buy stocks on Monday.
- Shop for a new car at the beginning of the month, but buy the car at the end of the month.

As these examples illustrate, heuristics can either help or hinder you as you move along your financial journey. Let's take a look next at some common heuristics that can lead you astray when making financial decisions: status quo bias, loss aversion, and optimism bias.

Status Quo Bias

HELPFUL HINT

Whenever you hear someone say, "If it isn't broken, don't fix it," they are exhibiting a status quo bias.

The **status quo bias** is your personal preference for keeping things just like they currently are. This bias is prevalent because most people are usually comfortable with their current situation, even when much better options are available (see **Helpful Hint**). Those who fall prey to this heuristic tend to:

- Overemphasize the good aspects of their current situation.

- Underestimate the benefits that come from making a change.
- Fear the possibility of making a wrong decision regarding a new situation.

It is often too easy to get stuck doing the same old thing, even if the past behavior has not been particularly beneficial. As shown in **Illustration 1.5.4**, the status quo bias can lead to procrastination by overvaluing the present situation compared to the gains that could be received from a new opportunity. Over time, the status quo bias can lead to missed opportunities as a result of continued inaction.

ILLUSTRATION 1.5.4

The Status Quo Bias: Valuing What You Currently Have Higher Than What Is Possibly Available

Loss Aversion

Most people dislike losing, especially money. In other words, people tend to be **loss-averse**.

- Research indicates that for individuals to be indifferent between the equal likelihood of gains and losses, the potential gains need to be nearly **twice** that of the potential losses. That means that you would need to have the same possibility of winning an additional $1,000 as you would of losing $500.
- Behavioral economists have concluded that if you lose, your emotional pain—your feelings of loss and the regret associated with making a bad decision—will also be two times as great as the joy of winning, as shown in **Illustration 1.5.5**.

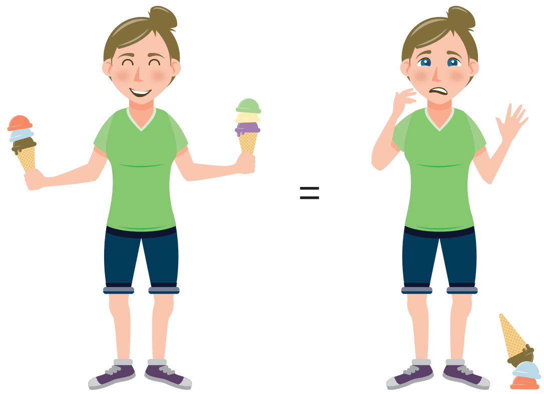


ILLUSTRATION 1.5.5

Pain of Losses Are Twice as Intense Compared to Joy of Gains

As a result, people generally focus much of their attention on avoiding losses because the joy of a gain is smothered by the pain of a loss. The fear of loss also helps explain the status quo bias.

How does this loss-aversion heuristic translate to financial decisions? Consider that some investments over the long run, say, 20 years, have a consistent track record of superior performance. However, these same investments, over the short run, might gain and lose value regularly. People who are loss-averse tend to focus on these short-term fluctuations rather than on the 20-year payoff. Over time, they will miss out on benefiting from long-term gains, even when they have the time and resources to deal with a short-term loss.

Optimism Bias

Although people are generally loss-averse, there are others who think that they will rarely, if ever, experience painful losses during their lifetime. These people suffer from an **optimism bias**.

- Most people are generally optimistic and believe that they are, at a minimum, above average in most daily activities.
- There is nothing wrong with being optimistic, unless it blinds you to reality. Being overly optimistic can lead some people to discount the risks associated with a decision.

ILLUSTRATION 1.5.6

Being Overly Optimistic Can Lead to Overconfidence and Poor Performance

Confirmation Bias

Say Jake buys stock in a company without doing any research. If the stock rises in value, Jake might attribute the success of the investment to his stock-picking skill rather than luck. When this happens, Jake may then go on to find reasons to confirm the assessment of his stock-selection "skill" and ignore any evidence that his investment success was based on pure chance. This is known as a **confirmatory bias**, which leads to overconfidence in future decisions. Thus, lucky novice investors like Jake can quickly become overly optimistic and overconfident, which can be a devastating combination for long-term investment success.

Using Heuristics as a Decision-Making Tool

The Decision-Making Process

When it comes to making any type of major decision—particularly a financial decision—financial planning experts recommend that you use a formal decision-making process, such as the one shown in **Illustration 1.5.7**:

1. **Identify the problem or issue.** For example, say you want to rent a new apartment that is closer to school.
2. **Gather appropriate facts and data about the situation.** You should visit available apartments and make notes regarding the rent, utilities, and other expenses involved with each option.
3. **Analyze the data you have collected.** You should evaluate how each option adds up in terms of, for example, location and price.
4. **List the viable alternatives and select the best one.** It's also important at this point in the process to determine acceptable alternatives. It might turn out that the place you really want to rent has already been taken. If this were to happen, you need a good back-up plan.
5. **Implement the decision.** You need to make the commitment and sign the lease.
6. **Monitor outcomes.** If your apartment meets your expectations, you won't need to do anything. But if your landlord refuses to fix the plumbing or other things change, you'll need to start the apartment search over again.

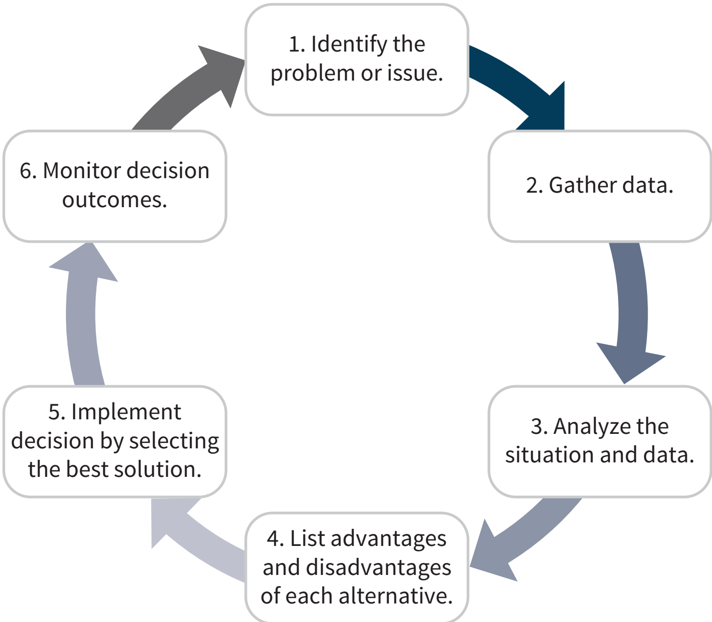


ILLUSTRATION 1.5.7

A Decision-Making Process

Heuristics for Improved Financial Decision Making

You'll find that the use of heuristics can aid you through this decision-making process (see **Helpful Hint**). **Illustration 1.5.8** presents three heuristics and how you can use them today.

Let's see how heuristics and behavioral biases can come into play on a daily basis. Your friend, Mie-Yun, recently accepted a new job. Although her employer offers a retirement savings plan, she is unsure if she should contribute money to the plan. Mie-Yun needs most of her income to pay for immediate needs, like rent, car payments, food, and other expenses. If Mie-Yun were to agree to begin saving, how can she be sure she will stick to the

HELPFUL HINT

Although it is true that over-reliance on heuristics can lead to bad outcomes, heuristics can also serve as valuable tools to help you along your financial journey by improving your decision making.

ILLUSTRATION 1.5.8

Heuristic Techniques for Making Wise Financial Decisions

Precommit to Decisions	Automate Good Decisions	Set Clear Goals
Use deadlines	Save automatically through your employer	Define where you want to be financially
Have others hold you accountable	Pay bills automatically	Begin working toward your goals
Reduce procrastination		Focus on small steps

plan? Mie-Yun can use some of the techniques described previously as a way to commit to her decision.

- When Mie-Yun receives a raise, she can ask her employer to automatically save half of her raise for a contribution to her retirement plan. If this agreement is automatically enforced each time she receives a raise, then Mie-Yun is benefitting from the status quo bias, which helps people who precommit to a transaction actually implement the decision. People rarely end up changing the automated savings agreement.
- You could encourage Mie-Yun to visualize her future self in retirement. Then, you could ask how much money she will likely need at that point. By setting a goal and attaching a cost to it, it will be easier for Mie-Yun to stay committed.

Many businesses also use behavioral heuristics to their advantage, specifically the status quo bias. Here are two examples:

1. Businesses know that consumers will not pay as much attention to small rising costs over time. So rather than raise prices once per year, businesses raise prices throughout the year.
2. Banks, Internet providers, and cell-phone companies offer “teaser” rates or special offers to bring in new customers and then raise the rates later, knowing that many customers will not switch service providers.

Now that you know about heuristics and behavioral biases, you can defend yourself from falling victim to these tactics! You can even begin to use heuristics to your advantage.

Concepts in Action

Axel works for a small but growing company. The firm offers each employee the option to contribute to a retirement plan. The nice thing about the plan is that each dollar contributed by an employee is matched by the employer, up to a maximum match of 6%. Unfortunately, Axel does not have the cash flow to make contributions right now. Rent is expensive, and he is still paying off some high-interest debt. However, next January, Axel is confident that he can start contributing at least 6% of his pay into the plan. How might you encourage Axel to follow through and contribute to the plan?

Solution

You can encourage Axel to precommit to the plan by having him sign up today and requesting his employer to begin deducting contributions from his pay on January 1. By precommitting, he will probably not even notice the deduction from his paycheck when it starts.

Another alternative is to use Axel’s risk aversion to prompt action. Every day that he postpones a contribution, Axel loses money because he is not receiving the employer match. Essentially, the employer match of 6% means that Axel can earn a risk-free rate of return equal to 100% just by contributing up to 6% of his own pay. When framed as a loss, Axel may be more likely to find money to contribute.

End-of-Topic Assessment

Multiple-Choice Questions

1. Melinda can take $500 today, or she can wait 1 year and receive $550. The good news is that Melinda does not need the money, so either way the money is a bonus. If she takes the money today, she'll put it in the bank and receive a 3% rate of return (so she would have a total of $515 a year from now). If Melinda does, in fact, take the $500 today, you could say that:

- **a.** she is using hyperbolic discounting.
- **b.** she has an optimism bias.
- **c.** she feels that the likelihood of getting the full $550 is less than getting a guaranteed $515.
- **d.** she has a status quo bias.

2. Which of the following is an example of a heuristic?

- **a.** Two plus two equals four.
- **b.** Never buy stocks on a Monday.
- **c.** Income minus expenses equals savings.
- **d.** Both two plus two equals four and income minus expenses equals savings are heuristics.

3. Mary sees no reason to change if what she is doing has worked in the past. Given her perspective, Mary may be exhibiting a(n):

- **a.** loss-aversion bias.
- **b.** optimism bias.
- **c.** status quo bias.
- **d.** discounting bias.

4. Some firms entice consumers into long-term contracts using low introductory rates. Once the initial contract term has ended, the firm increases the cost of the service. Firms know that few consumers leave when the prices increase. These firms are relying on what behavioral economics bias?

- **a.** Overconfidence.
- **b.** Optimism.
- **c.** Status quo.
- **d.** Loss aversion.

5. Jerry recently earned $200 on an investment. Unfortunately, the investment fell in value, and he lost $200. Afterward, Jerry felt miserable. He hated losing the money much more than he enjoyed seeing the investment grow. Jerry's experience is an example of:

- **a.** discounting.
- **b.** loss aversion.
- **c.** behavioral economics.
- **d.** heuristic meditation.

6. Swarn is a risk-taker. His core life philosophy is that nothing bad can happen to him. When he thinks back over his life, he can't remember any serious negative events. When he looks ahead, he simply can't imagine a painful loss occurring to him. Swarn likely suffers from a(n):

- **a.** optimism bias.
- **b.** loss-aversion bias.
- **c.** cognitive evaluation bias.
- **d.** future discounting bias.

7. Someone who erroneously attributes outcomes to skill rather than chance, while ignoring indications that would undermine perceptions of skill, is prone to:

- **a.** status quo bias.
- **b.** optimism bias.
- **c.** confirmatory bias.
- **d.** hyperbolic discounting.

8. Creating deadlines for yourself is an example of what type of decision-making strategy?

- **a.** Visualizing clear goals.
- **b.** Precommitting to decisions.
- **c.** Automating good decisions.
- **d.** Confirmation bias.

9. Having bills automatically paid so you are never late when making a payment is an example of:

- **a.** setting clear goals.
- **b.** automating good decisions.
- **c.** precommitting to decisions.
- **d.** automating good decisions and precommitting to decisions.

10. Your friend Lucia is a procrastinator. How can you best help her overcome this weakness?

- **I.** Create deadlines.
- **II.** Encourage hyperbolic discounting.
- **III.** Strengthen her confirmatory bias.
    - **a.** I only.
    - **b.** III only.
    - **c.** I and II only.
    - **d.** II and III only.

Adventures in Personal Finance

Short Answer

1. Match the following terms with the appropriate definition.

a. Hyperbolic discounting.
b. Optimism bias.
c. Loss aversion.
d. Status quo bias.
e. Confirmatory bias.

1. The tendency for people to fail to focus on gains because they seek to escape losses.
2. An inconsistent preference across time leading to procrastination.
3. A preference for things to remain the way they are.
4. Erroneously attributing outcomes to skill rather than chance while ignoring indications that would undermine perceptions of skill.
5. A situation that results in a significant majority of people thinking that only good things will happen to them.

2. Thinking about your current situation, identify three tasks about which you are currently procrastinating. Next, identify a specific strategy for each task that you can use to take corrective action.

3. Overconfidence and optimism biases are generally most easily seen in others rather than in ourselves. However, self-awareness of these personality characteristics improves our ability to achieve goals. Thinking over the past, can you identify instances where overconfidence or optimism bias led you to make unwise decisions or to take too much risk?

4. When situations are viewed with a short-term perspective (something economists call **myopically**), individuals often fail to see the consequences of their choices. However, imagine if your view of time extends well beyond the present and into weeks, months, or even years into the future. Would this alone change any of your financial decisions? In addition, how would a clear picture of your future financial goals influence your choices? Which do you feel would be more important in achieving your financial goals: a long-term goal or a clear picture of the future?

Explore

1. **Writing** Search the **YouTube** website for "behavioral biases in decision making" and then select a video to watch. After watching it, describe your reaction to it in one to two paragraphs. Be sure to note whether you were surprised by what you did, and did not, see. Also, comment on how well the video illustrates the tendency of people to be fooled by behavioral biases.

2. **Writing** Many people pay late fees simply because they forget to pay their bills. Go through your current recurring bills, such as those for utilities, phone, or loans. Check to see if any of these companies offer electronic billing. Now, check with your bank (or credit union) and see if it offers electronic bill-payment services. Through this service, you may be able to have the company bill you, and then your bank will automatically pay the bill on time each month. By automating your bill-payment method, you could potentially avoid late fees and improve your finances. Plus, you are saving on postage. Write a short summary about your findings and if you will (or why you won't) begin to use these services.

Expanded Learning Activity

Writing Behavioral economic concepts apply to many areas of daily life, including marketing, diet, and exercise. Conduct an analysis of ways government and business use behavioral economic techniques to change your personal financial management behaviors. Write a brief summary of your findings. Based on your research, create a "to-do" list for saving. Be sure to share with your instructor and other students any techniques that you find unethical or manipulative.

End-of-Chapter Review and Problem-Solving

Learning Objectives Review

1.1 Describe how your financial knowledge, experience, risk tolerance, and feelings of control influence the way you view the financial world. Your attitudes, expectations, and risk tolerance influence the way you view financial issues and concerns; when used purposely, these same factors can help you become more financially proficient. As you progress in your own financial journey, be sure to periodically evaluate your risk tolerance, attitudes about money, perceptions, preferences, and expectations regarding the future to make sure that you are progressing toward your goals.

1.2 Explain how your human and social capital relate to your financial well-being. Learning about money-management topics and using that information is essential to improving your financial well-being today and in the future. As you gain financial knowledge, your financial capabilities will increase. This, in turn, will enhance your ability to navigate the financial marketplace with confidence. When you invest in education and training, you are building a skill set that can be converted to income and wealth; it is also important not to neglect building strong social networks if your goal is to achieve financial well-being. When combined with your increasing financial knowledge, financial capabilities, and changes in expectations, human and social capital can help you stay on your financial path toward goal achievement.

1.3 Discuss how financial risk tolerance relates to financial goal achievement. One fundamental principle of personal finance is that there is a direct positive association between risk and returns. As such, you must be willing to take some risk to accumulate wealth over your lifetime. This rule implies that in cases in which you want or need to earn higher returns, you must be willing to take additional financial risk. As you gain financial knowledge and improve your financial capabilities, you will notice that your risk tolerance also increases. This will allow you to take greater calculated risks in the future.

1.4 Use your unique time perspective to create SMART financial goals. Before you begin or fast-forward your financial journey, you should know clearly where you are headed; developing meaningful financial goals can be enhanced by using the SMART process of goal formation. A SMART goal is **s**pecific, **m**easurable, **a**ttainable, **r**ealistic, and **t**imely. In addition, it is important to document the time it will take to achieve a goal. Although a goal time horizon can be measured objectively, your internal time perspective can also influence goal formation. As noted, those who have a future time orientation tend to accumulate wealth faster than others.

1.5 Describe strategies to overcome mental biases and improve financial decision making and well-being. Nearly everyone is susceptible to cognitive biases that can shortcut rational decision making. Being able to identify and transform these biases into financial-management tools is an important skill. Once you learn to identify biases in others as well as in yourself, you will start making better short- and long-term financial decisions.

Continuing Case: Tarek's Financial Journey

In every chapter, you will have an opportunity to assist Tarek as he begins his financial journey. Let's meet Tarek and learn a bit about his current financial situation.

Tarek, age 26, is single. He is in a committed relationship. After graduating from college, he moved to the Midwest to begin his career. His interest in learning about personal finance topics and money management has increased over the past few months. Like many people his age, he went through school with little interest in these things. Now that he is working and thinking about his future, he wants to make sure that he is making the best financial decisions. Let's help Tarek by learning more about his interior financial attitudes and expectations.

When Tarek heard about the idea of time perspectives, he was curious about his own preferences. He found the following questions online.[1] He knew there were no correct or incorrect responses.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I believe that getting together with my friends to party is one of life's important pleasures.				
2. I believe that a person's day should be planned ahead each morning.				
3. I often think of what I should have done differently in my life.				

[1] These and similar questions can be found in M. D'Alessio, V. D. P. Guarino, and P. G. Zimbardo, "Testing Zimbardo's Stanford Time Perspective Inventory (ZSTPI)—Short Form: An Italian Study," *Time & Society* (Vol. 12, February 3, 2003), pp. 333–347. See also P. Zimbardo and J. Boyd, "Putting Time in Perspective: A Valid, Reliable Individual-Difference Metric," *The Journal of Personality and Social Psychology* (Vol. 77, 1999), pp. 1271–1288.

Instructions

a. Let's say that Tarek answers the first question as disagree, the second question as strongly agree, and the third question as strongly disagree. Based on his answers what is his time perspective?

b. What does Tarek's time perspective indicate about his potential money-management ability?

c. Tarek's girlfriend, Samantha, is thinking about going on to earn a master's degree in history from an Ivy League university. Samantha loves everything there is to know about ancient Middle Eastern mystic philosophy. She found a scholar who is exploring this topic from a historical perspective. If Samantha decides to go back to school, she anticipates paying 2 years of tuition, room, food, books, and other fees equal to $63,000 yearly. She plans to borrow most of this amount. She would need to quit her current job, which will lead to a loss of income of $33,000 per year. She believes that having a master's degree will allow her to teach high school history, which should increase her annual income to $35,000 per year. Based on this information, what is Samantha's payback period?

d. Based on your analysis from part (c), does it make economic sense for Samantha to go back to school at this time? What might be an alternative?

Calculating the Cost of Life's Financial Journey

Researchers at some of the nation's leading universities have been studying financial literacy for years. Results from their work provide interesting insights into the financial capabilities of the average American. Their findings are a bit sad. The average American is, well, basically a "C" student when it comes to financial issues—and we are talking about adults!

Instructions

The following questions are those that researchers asked survey participants to think about. See if you can beat the national averages for correct and incorrect responses!

a. If the chance of getting a disease is 10%, how many people out of 1,000 would be expected to get the disease?

b. If five people all have the winning number in the lottery and the prize is $2 million, how much will each of them get?

c. Let's say you have $200 in a savings account. The account earns 10% interest per year. How much would you have in the account at the end of 2 years?

Next, try these three questions:[2]

d. Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than $102, exactly $102, or less than $102?

e. Imagine that the interest rate on your savings account is 1% per year and inflation is 2% per year. After 1 year, would you be able to buy more than, exactly the same as, or less than today with the money in this account?

f. Do you think that the following statement is true or false? "Buying a single company stock usually provides a safer return than a stock mutual fund."

[2]A. Lusardi and O. S. Mitchell, "Financial Literacy and Planning: Implications for Retirement Wellbeing," *Working Paper*, Pension Research Council (Wharton School, University of Pennsylvania, 2006).

Planning for the Future

Edmond, age 33, is thinking about his financial future. After reading the chapter material, he has decided to focus his efforts on reaching the following three financial goals:

1. Retire at age 55.
2. Purchase a new pickup truck in 2 years to replace his late-model car.
3. Go back to school in 5 years and obtain an MBA.

Instructions

Based on this information, do the following:

a. Categorize each goal based on the goal time horizon guidelines presented in the chapter.

b. Rank the goals in terms of funding importance.

c. Choose one of Edmond's three goals. Using the following table, help Edmond clearly describe the goal using the SMART procedure; be as detailed as possible when providing guidance on each element.

Specific	Measurable	Attainable	Realistic	Timely

Continuing Project: Your Financial Journey

Go to WileyPLUS for complete details and instructions.