

CHAPTER

11

Savings

simple interest
compound interest
Rule of 72
tax exempt
tax deferred
annual percentage
yield (APY)
certificate of deposit
(CD)
U.S. savings bond

Reading for Meaning

Examine the charts before you read this chapter. Write down questions you have about them. Try to answer the questions as you read.

CHAPTER OBJECTIVES


After studying this chapter, you will be able to

- **define** personal savings goals.
- **calculate** compound interest.
- **use** the *Rule of 72* to determine savings outcomes.
- **compare** different types of savings products.



Central Ideas

- A savings plan is an essential piece of an overall financial program.
- Compound interest helps your savings grow over time.



Saving is setting money aside for future use. A *savings plan* is a strategy for using money to reach important goals and to advance your financial security. Creating a savings plan involves a careful look at your current finances and your important objectives.

Money is a limited resource. Every decision to spend or save has an opportunity cost. The money you spend today cannot meet tomorrow's needs and wants. The opportunity cost of current spending is reduced future spending power. Current spending also costs you the opportunity to earn interest on savings.

Using interest-earning opportunities can help your savings grow. To make the most of your savings dollars, learn how interest is calculated. Compare savings products and services at different financial institutions and choose the type that best meets your needs.

Creating a Savings Plan

A personal savings plan is a vital part of an overall financial plan. A savings plan consists of creating an emergency fund, setting goals for savings, and choosing a combination of savings instruments to meet your needs. First, you need to have money that can be set aside for savings.

Budget for Saving

Review the money management section in Chapter 6. Follow the steps outlined to create a simple, workable money management plan. This will give you an in-depth look at your current finances. It will also tell you how much money you can use to start a savings program. Once you budget for savings, the following strategies can help you make your savings grow:

- **Pay yourself first.** Rather than waiting until all bills are paid before the leftovers go into savings, feed your savings first. Budget for savings. Put it into your spending plan. Make this a regular part of your bill-paying routine. When you receive extra money—a gift, a bonus, a tax refund—add it to your savings.
- **Use direct deposit.** Many employers can deposit employees' paychecks directly into their bank accounts. A portion can go into a savings account. This strategy is another way to pay yourself first.
- **Let your savings grow.** Your savings will not build up if you are constantly dipping into it. Except for withdrawing money to pay for the savings goals you set, stay out of your savings. If the temptation is too great, perhaps you can choose a savings plan that makes withdrawal difficult.
- **Reduce spending, increase saving.** Keep a spending log as described in Chapter 6. This will show you where your money goes. Look for places where you can cut spending and add to your savings. The chapters in Unit 3 give tips for saving money on your purchases.

Create an Emergency Fund

The first savings goal is to build an emergency fund. An emergency fund is savings you can easily access in case of a job layoff, illness, or unexpected expense. Since most emergencies are unplanned, the money should be available to use right away.

The amount of money in this fund varies depending on your needs. However, a common guideline is that you keep enough money in the emergency fund to cover living expenses for six to eight months. This would include rent or mortgage payments, car and other loan payments, taxes, utilities, food, and all other expenses.

Set Goals for Saving

Once you have an emergency fund, you can save for other things. It is easier to save if you have clearly defined goals, 11-1. Begin with a list of what you want to achieve with your money. What would persuade you to give up spending now so you can save enough for the future? Your savings goals need to be

- **realistic.** Consider your income and expenses, your life situation, and any likely changes. Set up financial goals that you can achieve based on these realities. For example, suppose you can save \$300 monthly and you want to buy a car within two years without getting a loan. A used car is realistic while a new luxury car is not. What are your goals? Are they objectives you can achieve?
- **specific and measurable.** Outline your goals in exact terms. “Putting together \$1,200 for a ski trip next winter” is more specific than “saving money to travel sometime in the future.” Likewise, “saving \$50 per month to buy a computer next summer” is more specific than “putting money aside in case you need it next year.” What specific goals do you and your family want to reach in the near or distant future?
- **time related.** Put your goals and objectives into a time frame. When will you need your savings? This will vary for different goals.

It is never too soon to start saving for the goods and services you want for your future. Once you know what you want your money to do for you, you can take realistic steps to reach your financial goals.

Maximizing Savings

There are many different places to save your money. Saving money in a financial institution, such as a bank or credit union, provides a safe place



11-1

Planning ahead can help you achieve long-term goals, such as paying for a college education.



Financial Managers

Financial managers at financial institutions are responsible for directing bank operations and overseeing the management of the products and services offered to customers. They may also resolve customer problems, oversee investments, and manage employees and departments.

to keep money and a way to earn interest. You can maximize your savings by considering the following:

- **Total amount deposited.** Obviously, the more you deposit, the more interest you earn.
- **Interest rate.** The higher the interest rate, the more you stand to gain.
- **Time span of deposit.** The longer money remains in savings without withdrawals, the more you accumulate.
- **Interest type.** There are two types of interest. **Simple interest** is computed only on the *principal* or the amount of money originally deposited. The principal does not include interest earned. **Compound interest** is figured on the money deposited plus the interest it earns. The interest previously earned is included in the total before new interest earnings are computed. Earning interest on the interest makes money grow faster.
- **Frequency of compounding.** The more often interest is compounded, the faster savings grows. Compounding may be done on a daily, quarterly, monthly, or semi-annual basis. Over time, compound interest increases the value of your savings. This concept is known as the *time value of money*. See 11-2.

11-2

The dual effects of time and compound interest add value to savings.



Watch Your Savings Grow					
Weekly Savings at Different Interest Rates, Compounded Monthly					
Weekly Amount:		Number of Years			
		10	20	30	
\$10	4.5%	\$ 6,550	\$ 16,814	\$ 32,897	
		25	16,375	42,035	82,243
		50	32,750	84,069	164,486
\$10	5.5%	\$ 6,910	\$ 18,871	\$ 39,576	
		25	17,274	47,176	98,940
		50	34,548	94,353	197,880
\$10	6.6%	\$ 7,294	\$ 21,243	\$ 47,914	
		25	18,236	53,107	119,786
		50	36,472	106,214	239,572
\$10	7.7%	\$ 7,707	\$ 23,984	\$ 58,361	
		25	19,267	59,959	145,903
		50	38,533	119,918	291,807
\$10	8.8%	\$ 8,148	\$ 27,155	\$ 71,491	
		25	20,371	67,888	178,729
		50	40,741	135,776	357,459
Original Amounts Saved:					
\$10		\$ 5,200	\$ 10,400	\$ 15,600	
25		13,000	26,000	39,000	
50		26,000	52,000	78,000	

Calculating Compound Interest

Calculating compound interest involves several steps.

1. Multiply the deposit by the annual interest rate.
2. Divide the answer from Step 1 by the rate of compounding. For monthly compounding, divide by 12; for quarterly, divide by 4; for semi-annual, divide by 2; for daily, divide by 365.
3. Add the answer from Step 2 to the deposit amount. The result is the new balance with interest.

These steps are shown in Chart 11-3, which calculates monthly compounding. For example, the savings plan shows a single deposit of \$100 and an annual interest rate of 5 percent. Therefore, the deposit amount at the end of Month 2 is \$100.84.

Future Value Tables

A future value table provides an easy way to calculate compound interest earnings at different interest rates and times. Future value tables usually show compound interest earnings for either a series of equal annual deposits or a single deposit, 11-4.

Calculating Compound Interest			
Month	Step 1 Deposit × Annual Interest Rate	Step 2 Step 1 Answer ÷ Rate of Compounding	Step 3 Deposit + Step 2 Answer = New Balance with Interest
1	$\$100 \times 5\% = \5	$\$5 \div 12 = \0.42	$\$100 + \$0.42 = \$100.42$
2	$\$100.42 \times 5\% = \5.02	$\$5.02 \div 12 = \0.42	$\$100.42 + \$0.42 = \$100.84$
3	$\$100.84 \times 5\% = \5.04	$\$5.04 \div 12 = \0.42	$\$100.84 + \$0.42 = \$101.26$
4	$\$101.26 \times 5\% = \5.06	$\$5.06 \div 12 = \0.42	$\$101.26 + \$0.42 = \$101.68$
5	$\$101.68 \times 5\% = \5.08	$\$5.08 \div 12 = \0.42	$\$101.68 + \$0.42 = \$102.10$
6	$\$102.10 \times 5\% = \5.11	$\$5.11 \div 12 = \0.43	$\$102.10 + \$0.43 = \$102.53$
7	$\$102.53 \times 5\% = \5.13	$\$5.13 \div 12 = \0.43	$\$102.53 + \$0.43 = \$102.96$
8	$\$102.96 \times 5\% = \5.15	$\$5.15 \div 12 = \0.43	$\$102.96 + \$0.43 = \$103.39$
9	$\$103.39 \times 5\% = \5.17	$\$5.17 \div 12 = \0.43	$\$103.39 + \$0.43 = \$103.82$
10	$\$103.82 \times 5\% = \5.19	$\$5.19 \div 12 = \0.43	$\$103.82 + \$0.43 = \$104.25$
11	$\$104.25 \times 5\% = \5.21	$\$5.21 \div 12 = \0.43	$\$104.25 + \$0.43 = \$104.68$
12	$\$104.68 \times 5\% = \5.23	$\$5.23 \div 12 = \0.44	$\$104.68 + \$0.44 = \$105.12$

11-3

After one year, a single deposit of \$100, earning an annual interest rate of 5 percent compounded monthly, will increase to \$105.12.

Future Value of \$1 (Single Deposit)								
Years	Annual Interest Rate							
	1%	2%	3%	4%	5%	6%	7%	8%
1	1.0100	1.0200	1.0300	1.0400	1.0500	1.0600	1.0700	1.0800
2	1.0201	1.0404	1.0609	1.0816	1.1025	1.1236	1.1449	1.1664
3	1.0303	1.0612	1.0927	1.1249	1.1576	1.1910	1.2250	1.2597
4	1.0406	1.0824	1.1255	1.1699	1.2155	1.2625	1.3108	1.3605
5	1.0510	1.1041	1.1593	1.2167	1.2763	1.3382	1.4026	1.4693
6	1.0615	1.1262	1.1941	1.2653	1.3401	1.4185	1.5007	1.5869
7	1.0721	1.1487	1.2299	1.3159	1.4071	1.5036	1.6058	1.7138
8	1.0829	1.1717	1.2668	1.3686	1.4775	1.5938	1.7182	1.8509
9	1.0937	1.1951	1.3048	1.4233	1.5513	1.6895	1.8385	1.9990
10	1.1046	1.2190	1.3439	1.4802	1.6289	1.7908	1.9672	2.1589
11	1.1157	1.2434	1.3842	1.5395	1.7103	1.8983	2.1049	2.3316
12	1.1268	1.2682	1.4258	1.6010	1.7959	2.0122	2.2522	2.5182
13	1.1381	1.2936	1.4685	1.6651	1.8856	2.1329	2.4098	2.7196
14	1.1495	1.3195	1.5126	1.7317	1.9799	2.2609	2.5785	2.9372
15	1.1610	1.3459	1.5580	1.8009	2.0789	2.3966	2.7590	3.1722
16	1.1726	1.3728	1.6047	1.8730	2.1829	2.5404	2.9522	3.4259
17	1.1843	1.4002	1.6528	1.9479	2.2920	2.6928	3.1588	3.7000
18	1.1961	1.4282	1.7024	2.0258	2.4066	2.8543	3.3799	3.9960
19	1.2081	1.4568	1.7535	2.1068	2.5270	3.0256	3.6165	4.3157
20	1.2202	1.4859	1.8061	2.1911	2.6533	3.2071	3.8697	4.6610
25	1.2824	1.6406	2.0938	2.6658	3.3864	4.2919	5.4274	6.8485
30	1.3478	1.8114	2.4273	3.2434	4.3219	5.7435	7.6123	10.0627
35	1.4166	1.9999	2.8139	3.9461	5.5160	7.6861	10.6766	14.7853
40	1.4889	2.2080	3.2620	4.8010	7.0400	10.2857	14.9745	21.7245
50	1.6446	2.6916	4.3839	7.1067	11.4674	18.4202	29.4570	46.9016

11-4

This table shows the future value (with compounding) of a single deposit of \$1.

For example, find the future value of a single \$100 deposit after 5 years at a 6 percent interest rate. Look along the “5 years” row to the number in the “6%” column. Multiply 1.3382 by \$100. The \$100 deposit would be worth \$133.82.

Suppose you made a single deposit of \$1,000 instead of \$100. To find the future value after 5 years at 6 percent interest, multiply by \$1,000. The \$1,000 would grow by \$338.20.

Rule of 72

If you do not have a future value table, you can use the **Rule of 72** to estimate the amount of time or interest it will take for your savings to double in value.

To calculate the number of years in which your savings will double, divide 72 by the rate of interest. For example, if you deposit \$1,000 at a rate of 4 percent, divide 72 by 4. The result is 18. In 18 years your \$1,000 will be worth approximately \$2,000.

To find the annual interest rate needed to double your savings, divide 72 by the number of years. For example, if your savings was in an account for 20 years, divide 72 by 20. The result is 3.6. Your savings must be in an account paying 3.6 percent for it to double in 20 years.

Consider Inflation and Taxes

Due to inflation, a dollar buys less this year than it did last year. The inflation rate varies from quarter to quarter and year to year. An inflation calculator tells you how much buying power a sum of money will lose between two points in time. One such calculator is available on the Bureau of Labor Statistics Web site.

When planning for the future, keep in mind that inflation reduces the value of your savings. The goods and services you wish to buy with your savings next year will cost more money than they cost today. Try to find a savings plan that pays higher interest than the rate of inflation.

Taxes also erode savings. Taxes on the money you earn can take 25 percent or more of your income. You minimize taxes by putting money into tax-exempt or tax-deferred savings.

- **Tax exempt** refers to earnings that are free of certain taxes. Certain savings accounts for education expenses are tax exempt.
- **Tax deferred** refers to a type of savings in which taxes on principal and/or earnings are not due until the funds are withdrawn. Retirement savings accounts are a common example—taxes are deferred until withdrawals begin at retirement.

When you can reduce or defer taxes on the money you save, you accumulate more money over time. Many employers offer tax-exempt or tax-deferred savings plans. Retirement plans help employees by allowing them to shift some of their current income to the future.

You must pay taxes on the interest earned by your savings. After the end of the year, you should receive a 1099-INT form from each financial



Monetary Economists

Monetary economists analyze the relationships among the economy, the banking industry, and interest rates. They work with numbers, study statistics, and use computers to prepare reports, charts, tables, and graphs. Economists often work for research firms, academic institutions, or the U.S. government.

institution that holds your savings. It will state the total interest you earned that year. You need to report this amount when filing your taxes.

Savings Choices

You can choose from a variety of savings products and plans. Compare the options and decide which will bring you the highest earnings and most advantageous opportunities for your savings, 11-5. You may want to start your search online. Many financial institution Web sites outline the rates, terms, fees, and services available with different savings products.

The *Truth in Savings Act* requires financial institutions to provide clear information about the costs and terms of interest-earning accounts in uniform terms. The purpose of the Truth in Savings Act is to help you compare savings products and make informed decisions. The Act requires advertising and any materials describing savings products to include the

- minimum amount required to open the account
- interest rate
- annual percentage yield (APY) and the period during which that APY is in effect. The **annual percentage yield (APY)** is the rate of yearly earnings from an account, including compound interest.
- minimum deposit, time requirements, and other terms the saver must meet to earn the stated APY
- description of any fees, conditions, and penalties that could lower the yield

As you compare savings products and plans, it is important to make sure your money is safe. As explained in Chapter 8, the Federal Deposit Insurance Corporation (FDIC) insures deposits in many financial institutions up to a certain amount. The National Credit Union Administration (NCUA) insures deposits in most credit unions.

Choosing a Savings Product

To decide which form of saving is best for you, consider the following questions:

- How much can you save regularly each week or month?
- When and how often do you expect to deposit money?
- When and how often do you expect to withdraw savings?
- Are you willing and able to deposit \$1,000 or more for 90 days or longer?
- Do you have a specific goal, such as an amount you want to save within a given time?
- Are you saving for a specific purpose or purchase?
- Is it important to be able to convert savings to cash quickly and conveniently?

11-5

You must look carefully to find the savings account that will make the most money for you.

Linking to... History

Federal Insurance on Deposits

In 1929, the U.S. stock market crashed, sending the country into what is known as the Great Depression. During the depression, many customers lost their savings and investments in failed financial institutions. Others went to their banks and withdrew all of their money in what is described as a “run on the bank.” This caused more financial institutions to fail.

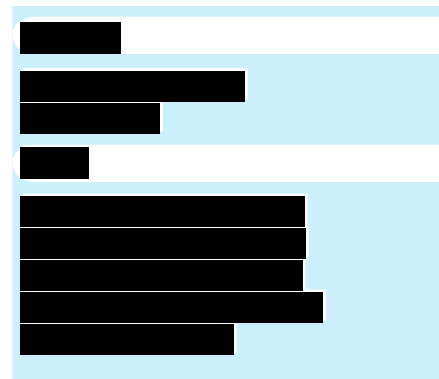
The Federal Deposit Insurance Corporation (FDIC) was created to prevent similar events from happening again. This agency is responsible for protecting consumer deposits and promoting confidence in the banking system. Banks contribute to an insurance fund administered by the FDIC. If a bank fails, the FDIC draws money from this fund to pay back all insured deposits. For more information about the history of the FDIC, visit www.fdic.gov.

Another important consideration is liquidity. *Liquidity* refers to the ease with which an asset can be converted into cash without losing value. You may want part of your savings to be “ready money” for emergencies or other needs. However, you often earn more interest on money you agree to leave on deposit for longer periods of time.

For top earnings on your savings, look for the

- **highest annual interest rate.** The higher the rate, the more interest your money will earn.
- **highest APY.** The higher the rate, the more your money will earn.
- **most frequent compounding of interest.** The more frequently interest is compounded, the more interest your savings will earn.
- **shortest interest periods.** Interest periods may be monthly, quarterly, semiannually, or annually. Generally, shorter interest periods offer more flexibility for depositing and withdrawing money without loss of interest.
- **fewest restrictions and penalties on the account.** These can affect both your earnings and your use of the account. For example, savings accounts may involve a minimum deposit or balance requirements.
- **lowest fees.** Even small fees can add up over time. A financial institution may charge a fee every time you write a check on an account, for example.

Make sure you find out when interest is credited to your account. If you withdraw savings just before interest is credited, you may not receive the full interest on your savings. To address this problem, some financial institutions offer a *grace period*. During this time, you can receive full earnings on deposits or withdrawals. The grace period often extends from five days before to five days after the crediting date. You may withdraw or deposit money during the grace period and still receive interest for the entire period.



Savings Accounts

Regular savings accounts pay interest and allow you to make deposits and withdrawals. At credit unions, savings accounts are called share accounts. Savings accounts generally offer the lowest interest earnings of all savings options. They also have the most liquidity of savings options.

Two common types of savings accounts are passbook savings and statement savings. With passbook savings, you receive a book to record deposits and withdrawals. With the more popular statement savings, you receive regular statements of deposits, withdrawals, and balances. Savings accounts may include a debit card, an ATM card, or online banking.

Many financial institutions offer special purpose savings accounts. These accounts encourage consumers to set aside money in a separate account for specific purposes. In some cases interest on these accounts is tax free or tax-deferred, allowing savings to accumulate at a faster pace. Special savings accounts may be used to save for college tuition, vacations, or other goals.

Money Market Deposit Accounts

Money market deposit accounts pay higher interest rates than savings accounts. These accounts are liquid. However, money market accounts require higher minimum balances than savings accounts, usually from \$100 to \$2,500. They also offer limited check writing and money transfer privileges.

Online-Only Savings Accounts

Internet banks provide banking services online. Customers access the bank's Web site to make electronic deposits and withdrawals, transfer funds, or check account balances. Internet banks have minimal operating expenses because they do not maintain or staff physical banks or branch offices. Their lower overhead costs allow them to pay higher interest rates on savings accounts.

The higher yield is the primary advantage of online-only savings accounts. It is easy to compare Internet banks and the yields they offer online. Questions to consider when shopping for online banking include:

- How do rates and yields compare from bank to bank?
- How easily and quickly can you withdraw your money if you need it?
- How do you make deposits?
- Are accounts covered by the FDIC?
- Does the bank have reliable online security for your personal information?
- How prompt and thorough is the bank in answering your questions and concerns?
- Can you easily link your online account with your local bank to make transfers?

Case Study: Using Dollars and Sense

A New Way to Save

After he gets a summer job, Morton's mom convinces him to open a savings account at the bank she uses. The earnings are unimpressive. While surfing the Internet, Morton comes across ads for online high-yield savings accounts.

Morton learns these accounts pay higher interest than his savings are earning. Some also offer auto loans and home mortgages at relatively low rates.

Morton is a little nervous about committing his savings online. However, the Internet banks he investigates are covered by FDIC insurance. After some more checking, he opens an online-only savings account. The procedure is simple because he can transfer funds electronically from one bank to the other.

Case Review

1. What do you think of Morton's decision to move his savings into an online-only account?
2. Go online to investigate online-only savings accounts. Compare two or three accounts at different Internet banks and answer the following questions:
 - What are some of the features of these accounts?
 - How do online-only savings accounts differ from the accounts the local bank offers?
 - What are some of the advantages and disadvantages of online-only savings accounts?
 - How can you open an online-only savings account?

- What other banking services are available in addition to savings accounts?
- Do you feel comfortable and confident dealing with the banking institution?

There can also be some disadvantages to consider if you are interested in online-only savings accounts. For example, you cannot establish a personal banking relationship as with your local bank or credit union. Every



Computer Software Engineers

Computer software engineers design and develop software and systems that make computers work. In the finance industry, these engineers develop and maintain computer programs that manage financial data in a secure, but user-friendly environment.

time you call with a question or problem you are likely to talk to a different person.

There also may be a lag time both for deposits and withdrawals to clear. This can be a problem in an emergency when you need cash immediately. Finally, you may run into technical difficulties with the bank's computer system or your own. In this case your account information and funds may be inaccessible until the problem is solved.

Certificates of Deposit

A **certificate of deposit (CD)** requires you to deposit a given amount of money for a set period of time or term. When the term is up, you can keep your money in the CD, deposit it in another CD, or take it out. A CD is sometimes called a *time deposit* or *time account*.

Certificates of deposit may offer a fixed annual rate of interest or a variable or floating interest rate. A variable rate moves up and down with market rates. Usually it is tied to a specific market rate, such as the rate on U.S. Treasury Bills.

Since CDs require you to commit your money for a period of time, they pay a higher rate of interest than money market and savings accounts. The longer you agree to hold a CD, the higher the rate of interest you can earn. For example, a six-year CD will yield a higher annual rate of interest than a two-year CD.

CDs are not liquid. In order to get the highest interest earnings, you must leave your money in the CD until the term is up. This term may be as little as one month or as much as seven years. If CDs are cashed before the time period is over, a significant amount of interest is lost. Also, there is a penalty for early withdrawal.

When shopping for a CD, make sure you ask these questions:

- What is the current APY?
- What is the maturity date?
- What is the dollar amount of earnings if you hold the certificate to maturity?
- What happens to the CD at maturity? Will your money earn interest at the regular savings account rate? Will it be automatically reinvested in another CD? Will the financial institution hold it with no interest until hearing from you? Will you receive notice of the maturity in advance? This gives you time to decide how to put the money to work again.

U.S. Savings Bonds

U.S. savings bonds offer another secure way to save your money. When you buy a **U.S. savings bond**, you are loaning the government money for a minimum of one year. On the specified date, the government repays the loan with interest. You are limited to a maximum purchase of \$5,000 per year for each type of bond. The two types of U.S. savings bonds are the

I Savings Bond and the *EE Savings Bond*. They are issued in both paper and electronic form. U.S. savings bonds can be purchased at most financial institutions, online, and through employers' payroll deduction plans.

I Bonds are sold at face value in denominations ranging from \$25 to \$5,000. In other words, a \$50 I Bond sells for \$50. I Bonds pay a fixed interest rate plus a semiannual inflation add-on rate. The Secretary of Treasury determines the fixed interest rate. The interest rate in effect at the time of purchase applies for the life of an I Bond.

The inflation rate is based on the *Consumer Price Index*, a figure that represents prices consumers pay for goods and services. Every six months, the inflation rate on I Bonds changes. When interest rates are low and inflation is not a threat, the return on I Bonds is relatively low. However, they are good insurance against inflation.

EE Bonds are sold in denominations ranging from \$25 to \$5,000. Paper EE Bonds are also available in a \$10,000 denomination. Electronic EE Bonds are sold for face value. Paper EE Bonds are sold for half of their face value. For example, a \$50 bond is sold for \$25.

EE Bonds earn a fixed interest rate. The rate is based on market yields of *Treasury Notes*, a type of government-backed investment, and other considerations related to savings bonds. New rates are announced every six months. When you buy an EE Bond, the current interest rate will apply for the life of the bond. Interest is compounded semi-annually.

You can redeem I and EE Bonds within 12 months, but you will lose three months interest if you do. There is no penalty for redemption after five years. You can defer federal income tax on interest earnings until you cash the bonds. Other tax benefits may apply if the bonds are used to finance education. To learn more about U.S. savings bonds, go to www.treasurydirect.gov.

Chapter Summary



Steps to financial security begin with a savings plan. Saving provides money for emergencies and for purchases you may need to make in the relatively near future. Setting personal savings goals will help you decide where and how to save your money.

It is a great advantage to begin your savings program when you are young. The longer your savings accumulate the more they earn. Compound interest helps your savings grow more quickly.

Several types of savings products are available to get you started. Key features to look for when deciding when and where to save include the annual interest rate, the annual percentage yield (APY), the lowest fees, and the fewest restrictions on savings accounts.

In addition to savings accounts you may choose to save through special purpose accounts, money market accounts, CDs, or U.S. savings bonds. These types of savings are usually a part of an overall financial plan.

Review

1. What are three points to consider when setting goals for savings?
2. What does it mean to “pay yourself first?”
3. What determines the amount of interest you earn on your savings?
4. How do simple and compound interest differ?
5. An account earning 5.50 percent annual interest will earn the most if it is compounded a) quarterly, b) monthly, c) daily.
6. Explain the Rule of 72.
7. What are four factors to look for when comparing potential earnings on savings options?
8. Explain what the APY is and how it is used in reference to savings accounts.
9. What is an online-only savings account and why does it usually pay higher interest than regular accounts?
10. Name and describe the two types of U.S. savings bonds.

Critical Thinking

11. Outline your own short-, medium-, and long-term savings goals. Discuss how they are likely to change as you pass through the life cycle stages discussed in Chapter 6.
12. Study the following savings options and list the advantages and disadvantages of each:
 - Regular savings accounts
 - Money market deposit accounts
 - Online-only savings accounts
 - Certificates of deposit
 - U.S. savings bonds

13. Assume you have \$1,000 you can save for one to three years. Compare savings options at three or more financial institutions. Determine which institution will pay the highest rate of interest for your money. Also find out how much you could expect to earn in one, two, and three years. In a short report, explain which savings option you would choose and why.
14. Research and compare different college savings plans. Develop a guide to use for establishing your own savings for college with your family.
18. **History, math.** Interview your parents, an aunt or uncle, your grandparents, or other older adults to learn what they paid for common items when they were your age. Check out earlier prices for an ice cream cone, a movie, shoes, cars, TV sets, haircuts, etc. Calculate the percentage difference between earlier prices and today's costs. Discuss findings with the class.

Academic Connections

15. **Speech, writing.** Interview a representative at a financial institution near you to learn what types of savings accounts and services are offered. Pick up literature on different savings programs and determine which you would find most attractive if you had \$200 to \$500 to put in savings. Prepare a brief report for the class on your experience.
16. **Research.** Conduct an online survey of money market deposit accounts. Choose three or four of these accounts to discuss in class. Include the overall advantages and disadvantages of money market deposit accounts, the range of interest rates paid, and account services.
17. **Financial literacy, writing.** Develop a "saver's guide" covering places to save, types of savings accounts, safety and liquidity of saved funds, and questions to ask before committing your money to an account.

MATH CHALLENGE

19. Use the Future Value Table, Figure 11-4, to find the amount of interest you would earn if you put \$4,500 in a savings account for 35 years at an annual interest rate of 3 percent.
20. Calculate the number of years it would take to double a \$10,000 deposit in a savings account earning 3 percent interest.

Tech Smart

21. Suppose you have three accounts with the details below at a bank in your community. Use the EDIE calculator at www.fdic.gov/edie/index.html to determine how much of the savings is insured by the FDIC.
 - Checking Account: \$5,000, Single—No beneficiaries, Non-interest bearing checking account
 - Money Market Deposit Account: \$45,000, Single—No beneficiaries, Interest-bearing account
 - Certificate of Deposit: \$150,000, Single—No beneficiaries, Interest-bearing account

