

CHAPTER 1

Building Capital

Congratulations on your decision to learn how to build wealth. By purchasing *The Forbes/CFA Institute Investment Course*, you have taken the first step toward learning about stocks and other securities. This book focuses primarily on stocks because their returns have historically exceeded those on most other assets. As a result, stocks have helped many people with modest sums of money build sizable portfolios over time. Of course, there is no guarantee that stocks will always rise over the long term. In fact, equity investors, on average, would have lost a considerable amount of money for the 10 years ending March 9, 2009, when most market averages sank to multiyear lows. Nonetheless, stocks can be among the best long-term investments. Long-term equity portfolios have been used to fund children's educations, retirement plans, and other major expenditures in life. This is because the evidence shows that over long investment horizons stocks have outperformed cash, bonds, and commodities throughout the economic history of the United States.

Using the stock market to achieve financial success, however, requires an understanding of the investment process, the factors that affect the stock market, and, perhaps most important, the risks of the stock market. This book gives you information used by professionals and small investors to make important financial decisions.

Whether you are new to the stock market or have been investing for years, we believe you will find the information in *The Forbes/CFA Institute Investment Course* easy to understand and retain. This

book provides the building blocks for your investment program and serves as an excellent resource to which you can refer often.

Many previously wealthy investors, and others who have had to delay retirement, will tell you that it is critical to understand the fundamental building blocks of investing so that you can prudently navigate the complex and ever-changing waters of the stock market. The information in this book, however, is not a substitute for an appropriately trained and experienced professional financial adviser or wealth manager who is skilled in applying the intricacies of portfolio management, asset allocation, taxes, and more to your unique situation. Be careful not to develop a false sense of confidence. Even after you finish reading this book, you may want to seek counsel from a credentialed adviser. You will certainly have a much richer conversation!

Role of the Stock Market in Building Wealth

Wealth can be increased in many ways. For example, you could invest in a particular *asset class* such as stocks, bonds, real estate, or commodities. An asset class is a group of securities that share some common risk and return characteristics. For example, stocks are typically more risky than bonds, but they tend to yield greater returns over time. As a result, some economists would argue that for very long investment horizons (i.e., 20 years or more), stocks are actually *less* risky than bonds or even cash.

Asset classes vary from one another, but securities can also vary substantially within an asset class. For example, some stocks, such as utility companies, tend to pay generous dividends and attract investors who plan to hold the stocks for long periods of time. Investors are willing to wait for these stocks to grow in value. In the meantime they receive a nice income stream in the form of dividends. This kind of investor is following a *buy-and-hold* strategy that produces *current income*.

Other stocks do not pay dividends, and their share prices tend to fluctuate more. These stocks are often used to build wealth in a more dynamic way. Investors who purchase such stocks hope to see the prices rise substantially over time. If a stock does appreciate in price, the investor can sell it for a *capital gain*. This method of building wealth requires more attention and knowledge but can also be more financially rewarding.

Publicly traded stocks are usually excellent vehicles for building wealth. Most are *liquid*, which means you can easily find a buyer or seller. Determining the price of an actively traded stock is usually easy because so many buyers and sellers exist and information about the market is widely available. Other forms of investments, such as real estate and collectibles, are not as liquid. Under normal circumstances, buying or selling a stock takes only a few minutes, sometimes just a few seconds. Initiating the transaction is as simple as phoning a broker or clicking your computer's mouse.

Probably the most compelling reason to buy stocks is their extraordinary profit potential. Stocks can frequently achieve gains of 10 percent or more in a year. In a strong up market (referred to as a *bull market*), gains can run much greater. However, investors can incur losses in a down market (commonly called a *bear market*). Sometimes those losses can be substantial. Yet astute investors can profit even in a bear market. The behavior of stocks in recent years has vividly illustrated both bull and bear markets.

One of the most important features of building wealth is that it is a cumulative process. Profits can be reinvested to produce more profits, so that a substantial amount of wealth can be accumulated over time. The process of earning profits on profits is called *compounding* and is explained later in this book. When an investor follows a disciplined investment plan, the accumulation of wealth can be much greater than in more conservative investments, such as savings accounts, certificates of deposit, and whole-life insurance policies.

Investing in stocks (and most other securities) often involves significant tax consequences. You may want to check with your accountant or tax adviser before committing a large amount of capital to stocks. Federal and state tax rules are ever-changing and can affect the way you should invest. If taxes are prohibitive, they may make stocks an unattractive choice. A good tax adviser should be able to clearly explain the best choices for you. As a general rule, however, you should not allow tax concerns to keep you from making sound long-term investment choices.

Determining Your Financial Position

The first step in creating a financial plan is to assess your current financial position. Credible financial advisers will walk you through a similar process before making an investment recommendation.

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Like any business, you can assess your financial position by using a personal *balance sheet* and *income statement*. Your personal financial statements will help you determine the number and value of your assets, how your assets are invested, what asset classes you have exposure to, how much debt you have, and how much you might be able to invest in the stock market.

Your personal balance sheet represents an inventory of all your *assets* and *liabilities* at a particular point in time. Assets are anything with market value, such as a bank account, stock, car, or home. Liabilities represent your debts or obligations to others. Hopefully, your assets exceed your liabilities. If not, you are in a precarious financial position. The difference between your assets and liabilities is your *net worth*.

Let's begin with your assets. They can be categorized into liquid financial assets (such as cash); long-term financial assets (such as stocks, bonds, and mutual funds), which are less liquid than cash; and long-term tangible assets (such as cars, boats, or homes), which are not very liquid at all. Using the form provided in Figure 1.1, list your assets so that you can begin the process of assessing your financial position and knowing how much you can reasonably invest in the market.

Your Financial Inventory Guide

The following forms are for your private use. They require that you list certain confidential facts about your financial position, such as assets, liabilities, and free capital. You may need to tweak the forms for your personal situation. You may also want to share the information with your financial adviser; otherwise, keep it confidential. Use these forms as a guide and update them from time to time as your situation changes.

Now that you have listed your assets, take a moment to review the information. All three kinds of assets—liquid financial, long-term financial, and long-term tangible—are important. For example, if all your cash is invested in the stock market, none will be available for your daily needs or for unforeseen circumstances, such as car repairs, home maintenance, or the loss of a job. We will soon give you some rules of thumb for maintaining a cash reserve.

Also, your long-term tangible assets (particularly real estate) should be considered part of your investment portfolio. Although real estate prices have historically shown little volatility, rising steadily

Liquid Financial Assets

- 1. Cash in banks _____
- 2. Cash with brokers _____
- 3. Money market funds _____
- 4. Other _____
- Total Liquid Assets** _____

Long-Term Financial Assets

Bonds and Bond Mutual Funds

(1)	(2)	(3)	(4)
# of Bonds	Name of Issue	Bond Price*	Market Value [†]

Total Bonds _____

*Enter the *current* market price, not what you originally paid.

[†]Multiply column (1) and column (3).

Stocks and Stock Mutual Funds

(1)	(2)	(3)	(4)
# of Shares	Name of Issue	Share Price*	Market Value [†]

Total Stocks _____

*Enter the *current* market price, not what you originally paid.

[†]Multiply column (1) and column (3).

Figure 1.1 Assets

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Total Liquid Assets	_____
Total Bonds	_____
Total Stocks	_____
Total Financial Assets	_____
Long-Term Tangible Assets	
1. Cars	_____
2. Real estate	_____
3. Art	_____
4. Other items with market value	_____
Total Tangible Assets	_____
Total Assets (Financial plus Tangible)	_____

Figure 1.1 (continued)

over time, the past few years have demonstrated that this is not always the case. After peaking in 2006, residential real estate prices plunged across the nation. For many people, their primary residence is their most valuable asset. If you have a second or third home, even more of your portfolio is committed to real estate. You should keep such factors in mind when deciding on the kinds of stocks or other investments to buy.

Your personal balance sheet may contain intangible or non-financial assets, as well. For example, the value and character of your expected earnings, Social Security benefits, or pension income represent an implied asset that affects your financial position. Capturing this value in a meaningful way is beyond the scope of this chapter, but trained advisers and wealth managers often perform this kind of analysis.

Now that we understand assets, let's turn to liabilities, which are debts owed to others. They are often categorized as *current liabilities* and *long-term liabilities*. The first two items listed in Figure 1.2 are considered current liabilities because they are typically due for payment within one year. Other loans, such as mortgages and auto loans, are long-term in nature and do not need to be paid in full immediately.

Some advisers like to consider your investment goals (or the intended uses of your capital) as an implied liability. However, that introduces complexities beyond what we consider here.

Investment Insight

The concept of a comprehensive personal or life balance sheet is central to holistic wealth management. In general, the more assets investors have relative to their liabilities, the greater their capacity to bear risk. The personal balance sheet approach also provides a risk management framework for comparing the risks associated with the assets against the risks associated with the liabilities. Ideally, asset allocation on the asset portion of the balance sheet should be designed to hedge the risks on the liabilities portion. A technical approach can be found in a Research Foundation of CFA Institute monograph titled *Investment Management for Taxable Private Clients*, which is available at www.cfainstitute.org/forbes.

As mentioned earlier, we hope your assets exceed your liabilities. If so, your net worth is positive. This difference between your total assets, shown in Figure 1.1, and your total liabilities, shown in Figure 1.2, is often used as a measure of personal wealth or net worth (Figure 1.3). The greater your net worth, the stronger your financial position and the more control you have over your life.

1. Outstanding credit card balances (current)	_____
2. Other unpaid bills due within one year (current)	_____
3. Investment borrowings	_____
4. Home mortgage	_____
5. Second mortgage	_____
6. Car loans and leases	_____
7. Other	_____
Total Liabilities	_____

Figure 1.2 Liabilities

Total Assets	_____
Less Total Liabilities	_____
Net Worth	_____

Figure 1.3 Network

Total Financial Assets	_____
Less Current Liabilities	_____
Free Capital	_____

Figure 1.4 Free Capital

Taken together, your assets, liabilities, and net worth comprise your personal balance sheet, which shows you what you own, what you owe, and how much you are worth.

Another important concept is *free capital*, or the amount of money you do not need for current living expenses or other immediate obligations. As shown in Figure 1.4, free capital is equal to the difference between your total financial assets and your *current* liabilities (not your total liabilities). (*Note:* Life insurance and annuities are not considered part of free capital because of their importance in meeting basic financial needs.)

To be able to plan better over the coming year, it is also useful to know how much additional free capital you will have by the end of your fiscal year. To estimate this, you can construct your personal *income statement* as shown in Figure 1.5. Your income statement considers cash coming in and cash going out. If you expect to earn more than you spend over the next year, you will have additional free capital available for investment.

Having determined the extent of your free capital, the next step is to determine your *safety reserve* or *emergency fund*. The purpose of an emergency fund is to keep cash or cashlike assets on hand for emergencies. The amount of total free capital to set aside for this purpose depends entirely on your personal circumstances. For example, all else being equal, if you are self-employed, have a high degree of income volatility, or have unstable employment prospects, you should have a larger safety reserve. Tenured teachers and union members who have little fear of losing their jobs can generally get by with a smaller safety reserve. One rule of thumb, however, is to maintain 20 percent of your free capital in cash. Cash can be in the form of a bank account, a money market fund, or any other very liquid, short-term asset. Another rule of thumb is to keep three months of living expenses in cash.

As shown in Figure 1.6, your total free capital less your safety reserve is the amount you can safely devote to common stocks or other risky investments. This is called *investment capital*.

Annual Income

Salary	_____
Rents	_____
Royalties	_____
Annuity income	_____
Interest	_____
Dividends	_____
Pensions	_____
Other	_____
Total Annual Income	_____

Annual Expenses

Rent, maintenance, and mortgage payments	_____
Food	_____
Utilities	_____
Clothing	_____
Children's education	_____
Medical emergencies	_____
Charitable contributions	_____
Life insurance	_____
Property insurance	_____
Federal income tax	_____
State and local taxes	_____
Property taxes	_____
Other (including health insurance and retirement contributions)	_____
Total Annual Expenses	_____
Total Annual Income	_____
Less Total Annual Expenses	_____
Additional Free Capital	_____

Figure 1.5 Personal Income Statement

Free Capital	_____
Less Safety Reserve	_____
Investment Capital	_____

Figure 1.6 Investment Capital

Personal Balance Sheet Example

A simple example of an investor’s personal balance sheet may help illustrate the concepts just described (see Table 1.1). One thing you should notice immediately is that total assets equal total liabilities plus net worth. This is always the case. After all, net worth is the difference between assets and liabilities.

This investor has \$605,000 of free capital available for investment because financial assets total \$615,000 and current liabilities (i.e., credit card balances) total \$10,000. Most of the financial assets, \$600,000, are in long-term securities, specifically stocks and bonds; \$15,000 is in liquid assets.

Notice that we do not include the \$250,000 home value in the calculation of free capital since it is not available for investment. We still have not considered the emergency fund. If this investor requires \$15,000 in an emergency fund, investment capital is only \$590,000. This investor might want to consider increasing cash balances somewhat over the next year as additional free capital

Table 1.1 Investor’s Personal Balance Sheet

	Market Value	Percent of Total Assets	Percent of Financial Assets
Assets			
Liquid financial assets	\$ 15,000	1.7%	2.4%
Long-term financial assets			
Stocks	\$400,000	46.2%	65.0%
Bonds	200,000	23.1	32.5
Total long-term financial assets	\$600,000	69.4%	97.6%
Total financial assets (liquid and long-term)	\$615,000	71.1%	100%
Home	250,000	28.9	
Total assets	\$865,000	100%	
Liabilities and Equity			
Credit card balances (current)	\$ 10,000	1.2%	
Home mortgage (long-term)	190,000	22.0	
Net worth	665,000	76.9	
Total liabilities and net worth	\$865,000	100%	

is generated from income, so that financial assets more closely approximate investment capital.

We can also see how the financial assets are invested. Most (65 percent) is invested in stock. Only 2.4 percent is in liquid assets. Depending on the investor's needs, this balance might be too low, especially if it is less than three months' worth of income. In this case, the investor can refrain from investing additional free capital generated from income in order to increase the cash balance.

One can also see in this example that this investor does not appear to be overburdened with debt. Only 23.2 percent of the assets are financed with debt, leaving \$665,000 of net worth. This investor's financial position will therefore be less vulnerable to downturns in the financial markets.

Investment Margin

One important point concerning the common stock portion of your funds is to understand the importance of outright ownership. Some investors like to use *margin* to buy securities. Margin is simply another word for borrowing money from your broker to buy more stock. Buying on margin enables you to increase your investment in a particular security or in stocks in general. By using margin, you get the opportunity to enjoy increased profits when the price of your stock goes up.

Now for the bad news: You will suffer increased losses when the price of the stock goes down. If the price falls far enough, you may even get a *margin call*. This means you will have to provide your broker with additional funds to cover a portion of your losses. If you don't meet the margin call, your broker will sell some of your shares, locking in your losses. This and other trading issues are discussed in greater detail in Chapter 3.

As you can see, borrowing money to invest (i.e., using margin) puts your safety reserve at risk. Using margin increases your exposure to risk. Margin is not appropriate for every investor. Always remember that margin magnifies gains when the stock's price rises, but it also magnifies losses when the stock's price falls.

Here is a simple example to illustrate the point. Suppose you want to invest \$50,000 in XYZ common stock. If the stock is currently selling for \$50 per share, you can buy 1,000 shares. If the stock rises to \$60 per share, your profit is \$10,000, which is a 20 percent return. If the stock falls to \$40 per share, you lose \$10,000 or 20 percent.

Now suppose you want to buy the stock on margin. You buy 1,000 shares with your \$50,000 and you buy an additional 1,000 shares with \$50,000 that you borrow from your broker. If the stock rises to \$60 per share, your profit is \$20,000. Your percentage return is 40 percent since you made a \$20,000 profit on your \$50,000 investment. Your dollar profit is bigger because you controlled more shares, and your percentage return is bigger because you used borrowed money. Your broker does not share in your gains. After selling the 2,000 shares of stock for \$120,000, you return only \$50,000 to your broker and keep the remaining \$70,000 for yourself.

However, if the stock price falls to \$40, you must still repay \$50,000 to your broker because the broker does not share in your losses. Now you have a \$20,000 loss on your \$50,000 investment, so you have lost 40 percent. (In reality, when using margin, you must also pay your broker interest on the money you borrow, which could be substantial if you use margin for a prolonged period of time. As a result, the actual dollar profit would be smaller and the loss would be larger than shown in our example.)

Defining Your Goals

Before beginning any investment program, you must first identify your goals. Of course, we all want to make money. In general, the greater the amount of risk you are willing to tolerate, the greater the return you can expect to generate. This does not mean, however, that more risk *equals* more return. More risk simply *provides a possibility* for more return. How much risk you are willing to tolerate is a question only you can answer.

One well-understood concept in investing is that generally speaking there is a trade-off between safety and expected return. You must give up some of one to get the other. You must decide how much of a trade-off is right for you. Do not worry about what your friends or neighbors are doing. After all, you are much more likely to hear about the successes of your lucky friends than the failures of your unlucky friends. Keep in mind that every individual has unique circumstances and constraints. Two otherwise similar investors may have very different abilities or willingness to tolerate risk. The following material will help you determine the appropriate mix of risk and return for you.

Investment Insight

Each investor has unique objectives when it comes to investing. When establishing an investment plan, long-term and short-term needs must be considered, along with other factors, such as income and risk tolerance. Knowing what your goals are is a critical first step in the process. For help with defining your goals, refer to the article “Defining Your Investment Objectives” at www.cfainstitute.org/forbes. You may be wondering if working with a professional financial adviser is a better option for you. If so, review the article “Questions to Ask Yourself.” These questions might also provide additional insights while you are defining your goals.

Return Requirements

First, ask yourself, “What is the purpose of my investment program?” Is it to prepare for retirement, fund a child’s education, supplement current income, or invest excess capital? How critical your needs are and how far you are from fulfilling them will determine your return requirements and your willingness to tolerate risk.

If you are planning for retirement, consider your life expectancy. Keep in mind that life expectancies have been rising. This means that if you are still young, you will need more money when you retire than those who are retiring today. As a result, you must either save more money than today’s retirees saved while they were working or earn a higher return on your investments than they earned.

One conservative rule of thumb is to save enough money to have a nest egg that is 20 to 25 times greater than the amount of annual income you will need once you retire. This is a laudable goal. In theory, it should provide enough income no matter how long you live. But because no one expects to live forever, most people can retire on less. Retirement savings of 15 times your desired annual income should last about 40 years, depending on investment performance.

For example, suppose you want your nest egg to generate \$100,000 per year in income once you retire. Twenty times this amount is \$2 million. If you can earn a 5 percent return each and every year on that \$2 million, you will be able to generate \$100,000 of income forever without ever touching the principal. However, if

you managed to save only \$1.2 million for your retirement, at a 5 percent return you will be able to generate \$100,000 per year for only about 19 years. If you expect to live longer than 19 years once you retire, you will need to either earn a higher rate of return or learn to live on less than \$100,000 per year.

These simple examples hide two very important considerations. First, retirees will want their retirement income to keep pace with *inflation*. A fixed 5 percent investment return is not likely to allow your retirement income to increase with inflation over time. Second, an average return of 5 percent is not the same thing as a consistent return of 5 percent year in and year out. Volatility in investment returns can create a drag on capital accumulation over time, especially in the context of retirement withdrawals.

Investment Insight

Inflation can be a hidden tax on your investments. For a discussion of how inflation affects a range of investment types, consult the article “Investing and Inflation: Time to Protect Your Future” at www.cfainstitute.org/forbes.

Risk Profile

Here are several methods that will help you decide how much money to put at risk. Earlier in this chapter, we helped you take your financial inventory. Use that information to calculate your investment capital. Remember, investment capital is simply the total amount of your financial assets less your current obligations and a reserve for emergencies. Investment capital is the amount of wealth you have available for investment purposes.

The first step in assessing how much money to put at risk is to ask, “How would I react to an adverse outcome?” You should be able to financially withstand the potential immediate decline in value of the funds you invest in the stock market. If you cannot tolerate a substantial loss in value, either reduce your allocation to stocks or focus more on safer stocks. (While no stocks can be

considered entirely safe, we are talking about stocks that exhibit little price volatility and have relatively stable earnings streams.)

The second component of your tolerance for risk is the length of your investment horizon. The longer you can remain invested, the greater the probability that you can recoup potential losses. In general, if you do not need the funds for five years or longer, you should be able to commit a greater percentage of your investment capital to stocks.

Investment Insight

Before you can make a long-term financial plan you must understand your ultimate goals as an investor. Life planning is a method designed to help you identify your goals and assess your tolerance for risk by focusing on motivations other than just investment return. It helps you reflect on life-changing events. For some tips on this approach, read the article “The Difference between Goals and Dreams” at www.cfainstitute.org/forbes.

Life Cycle and the Risk/Return Mix

Investors are constantly faced with a trade-off between risk and return. Achieving higher returns usually means accepting greater risks. Identifying where you are in the life cycle helps determine your needs. There are four phases in the life cycle: accumulation, consolidation, spending, and gifting.

Younger investors are usually in the accumulation phase. They are at the start of their careers and typically have few assets and relatively little income. Priorities might include saving for the children’s education and for a larger home. A higher-risk program is appropriate because these priorities have long time horizons. Younger investors will also likely experience growing incomes.

In the consolidation or mid-to-late career stage, income may be relatively high and expenses may be relatively low. Typically, the children have left home and home equity and retirement savings are high. While retirement is still 10 to 20 years away, exercising some risk control and capital preservation is important.

In the spending phase, living expenses are covered by investments and the income they generate. In this phase, investors are not likely to return to work. This reliance on investments means

they should follow a more conservative, low-risk investment program that preserves wealth and its possibility for growth.

Investors who find themselves in the enviable position of having more assets than they will ever need are in the gifting phase. While the risk profile is similar to that of the spending phase, investors should also consider the purpose of their investments (e.g., leaving money to their heirs, favorite charities, etc.). The risk profiles of the beneficiaries will also have some bearing in this stage.

Other Considerations

In general, the longer your investment horizon, the more risk you can tolerate. This is partly because market and business cycles will have time to work themselves out in the long term, which reduces the risk of having to liquidate at the bottom of a market cycle. Furthermore, investment programs with short time horizons do not benefit as much from the process of compounding (i.e., earning profits on profits).

How much liquidity do you need? As mentioned earlier, you should have at least three months' worth of emergency funds to cover normal expenses. However, the exact amount depends on your circumstances and preferences. Cash should be available to cover known upcoming obligations and tax liabilities. Cash should also be available to provide investment flexibility so you can take advantage of a good opportunity if it suddenly presents itself. Money for these purposes should not be tied up in long-term investments.

Because taxes can be a heavy burden, your investment goal should focus on maximizing after-tax returns. Your goal should not be to maximize before-tax returns (nor should it be to minimize taxes per se). Always be conscious of the tax implications of your investments. For example, do not put low-yielding, tax-free investments such as municipal bonds in tax-exempt or tax-deferred accounts. However, municipal bonds may be perfectly appropriate for taxable accounts, especially for investors in high tax brackets. They are the ones who have the most to gain from the municipal bonds' tax-favored status. You may want to consult with an accountant or financial adviser to determine the tax implications of your investment program.

Always be aware of your unique needs and circumstances. We may have neglected to mention something that could be of great importance to you and your unique circumstances.

Asset Classes

A variety of asset classes are available to you for investment. While this book focuses primarily on stocks, you should be aware of how other asset classes compare in terms of risk and expected return so that you will be able to make educated investment decisions.

Stocks have historically offered higher returns than bonds, but stocks are also riskier than bonds. According to Ibbotson Associates, the long-term annually compounded average return on large company stocks has been about 10 percent. The corresponding return for corporate bonds had been only about 6 percent. This means that equity investors have doubled their money approximately every seven years while bond investors have had to wait 12 years to double theirs.

However, stocks do not always do better than bonds. It is not unusual to find periods when stocks significantly underperform bonds. This happened during the bear market from 2000 to 2002. It happened again during the recession that began in December 2007.

Table 1.2 shows historical returns for different asset classes. As mentioned before, stocks substantially outperformed bonds over the full period. But there is a trade-off: Stocks are riskier. Their returns are more variable. This is illustrated by the figures in the last column of the table, which lists the *standard deviation* for the various asset classes. Standard deviation is a measure of risk. The higher the number, the greater is the risk.

Table 1.2 Historical Returns for Various Asset Classes

	Average Geometric Return	Standard Deviation
Large-cap stocks	9.8%	20.5%
Small-cap stocks	11.9	32.8
Long-term corporate bonds	5.9	8.3
Long-term government bonds	5.4	9.6
Intermediate-term government bonds	5.3	5.7
U.S. Treasury bills (short-term)	3.7	3.1
Inflation	3.0	4.2

As reported in *Stocks, Bonds, Bills, and Inflation 2010 Yearbook* (Chicago: Ibbotson Associates).

Stocks of small, less well-known companies (known as *small-capitalization* or *small-cap* stocks) are more volatile and less liquid than stocks of larger, well-recognized companies (often called *blue chips*). Small stocks, though, have posted higher returns on average. Small stocks may be appropriate for investors with long time horizons and the ability to endure many business cycles.

You can also observe two other relationships in the table. Long-term bonds tend to have higher returns than short-term bonds because long-term bonds are more sensitive to changes in interest rates and therefore have more risk. Also, corporate bonds tend to have higher returns than government bonds because government securities are considered to be free from default risk. (The larger standard deviation for long-term government bonds shown in the table is due to a maturity mismatch. That is, during the period examined, maturities on government bonds were typically longer than maturities on corporate bonds.) The standard deviations show that these higher returns carry greater risk.

It bears repeating that the figures in the table are averages. You should not expect the same returns in any given year. The stock market may remain depressed for several years. For example, after peaking in 2000, the Dow Jones Industrial Average went into a prolonged bear market. The NASDAQ experienced an even longer and steeper decline. One decade later, the NASDAQ still had not returned to its 2000 high. Furthermore, in any given year, bonds can outperform stocks and short-term bonds can outperform long-term bonds. However, the risk/return relationships shown in the table should hold true over long investment horizons.

Investors should also think about foreign assets for their portfolios. From a U.S. perspective, there are two kinds of foreign stocks: those from developed countries and those from emerging markets. Foreign stocks often have higher expected returns and are an important source of *diversification*. We will discuss diversification later.

Medium-term and long-term bonds have higher returns than short-term fixed-income instruments, such as certificates of deposit and money market funds. However, short-term fixed-income instruments carry less risk than stocks and longer-term bonds because they are less sensitive to changes in interest rates.

Investment Insight

Refer to “Managing Your Adviser Relationship” at www.cfainstitute.org/forbes for information about working with an adviser and, in particular, about creating an investment policy statement (IPS). A seasoned financial adviser, particularly one bound to place your interests ahead of their own, can be expected to develop a customized IPS for you. This document will set out your objectives, tolerance for risk, investment constraints, and special needs as well as guidelines you wish to establish for investing your assets. It should include performance benchmarks, a schedule for portfolio review, and other policies relevant to managing the relationship. An up-front discussion with your adviser about the IPS will go a long way toward preventing misunderstandings that might crop up later.

Municipal securities can be short, medium, or long term. The returns from municipals are lower than those from other kinds of debt securities, but the interest income they produce is exempt from federal taxes and often from state taxes. (Build America Bonds [BABs] are an exception. These are taxable municipal bonds. In some cases, the issuing municipality receives a subsidy from the federal government, which allows it to pay a before-tax yield that is comparable to the yield on similarly rated corporate bonds. In other cases, the investor receives a tax credit, which helps offset the tax liability on the income received.) In many cases the municipal government will have purchased bond insurance that reduces or eliminates the chances that you will not receive your interest and get your principal back. As we mentioned earlier, tax-exempt investments are most appropriate for the taxable accounts of individuals who are in high tax brackets.

Real estate is another asset class that should be considered for inclusion in your portfolio. Real estate often offers good protection against inflation. However, real estate is not liquid and is not appropriate for investors with short investment horizons. Investing directly in real estate can also be troublesome because properties require maintenance, repair, and proper management. Investors who want real estate exposure can get it through other means such as real estate

investment trusts (REITs). Make sure you account for your existing real estate exposure before investing more of your funds in this asset class. After all, you may already have a lot of exposure to real estate through your primary residence and perhaps a vacation home.

Asset Allocation

Before going any further, it is necessary to say a few words about *asset allocation*. Many experts argue that this is the single most important decision an investor can make—even more important than deciding which individual securities to buy. Research has shown that 90 percent or more of the variability in portfolio returns is explained by asset allocation. Only a small portion is due to security selection. Yet investors often overlook this critical step, perhaps because they find it boring or less exciting than deciding what stocks to buy. However, before jumping into the markets, decide how much of your wealth should be in each of the major asset classes. The answer will depend on a number of factors. Here is a general rule of thumb: The longer your investment horizon, the more risk you should be able to tolerate and the more you can allocate to equities.

Example of Asset Allocation

The following simplified example illustrates how you might allocate funds to different asset classes based on particular needs and constraints.

Consider Mr. and Mrs. Franklin. They are 35 years old and have three children ages 4, 6, and 8. They want to invest for retirement and for their children's educations. They have more than enough income to support the family's living expenses. Excess funds will be invested on a periodic basis. They own a \$500,000 house with a \$400,000 mortgage.

How should they allocate their funds? They have two investment goals, which we consider separately in Table 1.3. One fund is for retirement, while the other is for the children's educations. Each fund has different risk profiles and time horizons.

Of course, this is not the only possible solution. The ideal allocation for Mr. and Mrs. Franklin will depend on their personal balance sheet and income statement as well as their other circumstances and their degree of tolerance for risk. However, the allocations

Table 1.3 Mr. and Mrs. Franklin's Asset Allocation for Retirement and Education

	Retirement	Education
Cash	0%	0%
Bonds (long-term)	15	45
U.S. stocks		
Small-cap	25	10
Blue-chip	30	40
Foreign stocks	20	5
Real estate	10	0
	<u>100%</u>	<u>100%</u>

shown in the table represent prudent choices for each investment goal. The retirement fund has a 30-year time horizon. The Franklins can afford to be more aggressive with this fund. It does not need liquidity or much exposure to bonds. It can absorb the risk of equities and reap the higher expected returns. Since the time horizon is so long, they can allocate a good amount to riskier equities such as small-cap and foreign stocks that offer higher potential returns. There are no tax-exempt or tax-deferred securities in the retirement fund. Assuming this fund is an individual retirement account (IRA) or 401(k) plan, it is already tax advantaged.

Stocks offer a high expected return and potential protection against inflation over the long term. Real estate can also help protect against inflation. Notice, however, that the real estate allocation in the retirement fund is fairly small. This is because the Franklins already have exposure to real estate since they own a house.

The education fund has a much shorter time horizon of about 10 to 14 years. It cannot withstand as much risk as the retirement fund, yet the time horizon is still long enough to require a healthy exposure to stocks. Nonetheless, this fund needs more exposure to the safety of bonds. In addition, most of the stocks in the portfolio should be those of blue-chip companies, which tend to be less volatile than small-cap stocks yet still offer a degree of inflation protection.

These asset allocations are just an example of how investors might construct their portfolios given various investment horizons and risk tolerances. Your own objectives and constraints, including your ability to tolerate risk, could result in very different allocations.

Active versus Passive Investing

You also must decide whether to manage your investments actively or passively. This book will help you implement whichever strategy you choose.

Active management is a dynamic way to build capital. The objective is to buy low and sell high to achieve capital gains. As explained earlier, profits can be reinvested to produce more profits. Active investing requires more time and involves more risk. However, it also offers an opportunity to beat the market.

An alternate strategy is to choose your investments and simply hold them for the long term, waiting for them to grow in value and produce dividends or income. This is known as *buy-and-hold* or *passive investing*. It involves less effort than active management. Costs are also lower because there is less trading involved.

Investment Insight

John Bogle, founder of The Vanguard Group, the world's largest mutual fund company, has long advocated passive investing strategies. For a summary of his article that examines the performance and risks of active and passive mutual funds relative to peer groups, refer to www.cfainstitute.org/forbes.

We further discuss passive and active investment strategies in Chapter 8. Keep in mind, however, that no matter which strategy you choose, it usually pays to take a long-term, prudent view. Many investors wrongly expect to make a killing in the stock market overnight. Others erroneously view the stock market as a game akin to gambling. Many people, otherwise very intelligent, seem to lose all judgment when it comes to investing.

These individuals might be better off with less rewarding, albeit more conservative, investments such as savings accounts, certificates of deposit, and the like. Make sure you avoid becoming a casualty of the markets. Rely on one of the most basic tenets of prudent investing: your common sense.

Use the information in this book to develop a well-conceived investment plan. You must be willing, however, to modify your plan periodically as your circumstances change.

Diversification

Diversification increases when you buy more than one asset, particularly when the expected returns from assets are not highly *correlated* with one another. For example, if you bought shares of Microsoft and Wal-Mart, you would be more diversified than if you invested in only one of these companies. Wal-Mart may do well even if Microsoft does poorly or vice versa. These two stocks are not highly correlated, so by owning both you may limit risk without sacrificing return.

Investment Insight

Diversification is a risk management technique that takes advantage of the idea that the values of different securities may rise and fall at different times. The positive performance of some investments may offset the negative performance of others. For diversification to work, you need uncorrelated investments.

Correlation is a statistical measure of how the performance of one security corresponds to the performance of another. Correlation is measured on a scale from -1 to $+1$, with 0 indicating no relationship. The following are examples of possible correlations.

- Positively correlated securities: the stocks of two U.S. home-building companies. Demand for housing is likely to affect both in similar ways.
- Uncorrelated securities: a high-grade utility bond and the stock of a gaming company. There are no obvious links.
- Negatively correlated securities: a petroleum exploration company and an automobile manufacturer. As oil prices rise, demand for cars may fall. The stock prices of these companies should move in opposite directions.

Creating a diversified portfolio can be harder than it seems. Some investments that seem unrelated may respond to events in similar ways. Furthermore, a diversification program that generally produces good results may prove ineffective during periods of acute economic stress. Sometimes diversification works least when it is needed most.

You would not be well diversified, for instance, if you bought shares of Microsoft and Intel. Why not? Because they are in similar industries and they are exposed to many of the same risks.

When one of these stocks falls, the other is likely to fall as well. The returns from these two stocks are likely to be highly correlated.

Many investors were overweight in the technology sector in early 2000. They may have owned a lot of different tech stocks, but they were not properly diversified. Unfortunately, they learned a painful lesson. This sector eventually lost over 75 percent of its value. Investors who may have thought they were diversified had to start their investment programs all over again from scratch.

The importance of diversification cannot be overemphasized. Of course, in hindsight, we would have been better off if we had put all of our money in Microsoft back in the 1980s. But imagine how we would feel today if we had invested it all in Enron instead—Enron eventually went bankrupt. The purpose of diversification is to protect you from the Enrons of this world.

Of course, diversification does not provide a guarantee against loss. Just about all kinds of securities lost value during the financial crisis of 2008. Assets once thought to be uncorrelated all fell in unison.

Nonetheless, it is better to diversify than to take the risk of putting all your eggs in one basket. Diversify your assets among many different companies that are generally not likely to perform similarly in a given market environment. If your stocks are likely to perform similarly, you are not properly diversified. In practice, the larger your investment in stocks, the easier and more important it is to diversify. One way to achieve diversification is through mutual funds, which we discuss in Chapter 12. And remember, you should diversify among asset classes as well as within asset classes.

It is important to consider how all of your assets act together when you determine your risk tolerance. An asset that is very risky on its own may actually reduce the overall risk of your portfolio if it has a low correlation with other assets in your portfolio.

Dollar Cost Averaging

A commonly used method for building capital is called *dollar cost averaging*. With dollar cost averaging you invest an equal amount of money in a security or asset class (e.g., stocks or mutual funds) on a regular basis, perhaps weekly, monthly, or quarterly.

The specific amount to invest is up to you, but it should be kept relatively constant so that you remain disciplined. By remaining

disciplined, you buy more shares of the asset when its price is low and fewer shares when its price is high. Because you purchase more shares at a low price, your average cost per share ends up being lower than the average price of the asset over the same period of time.

What happens if you don't stay disciplined? Many investors become scared as the price of an asset falls. As a result, they often stop making purchases or they purchase less. When things begin to turn around, they regain their confidence and start buying again.

This is a mistake. By straying from your investment program, you will buy fewer shares at lower prices and more shares at higher prices, defeating the purpose of dollar cost averaging.

To avoid falling into this trap, realize that corporations—like people—have their ups and downs. It is part of the natural evolution of any enterprise. Sometimes this is called *mean reversion*. Exceptionally high performance reverts down to normal levels, while exceptionally poor performance reverts up to more normal levels. The record of Internet and other technology stocks since the mid-1990s serves as an example.

Investment Insight

Mean reversion is the idea that some prices and returns eventually move back toward a historical mean, or average. This mean can be the historical average of the price, the return, or other relevant average such as the growth in the economy or the average return of an industry.

If a company is fundamentally sound, you have good reason to stick with your dollar cost averaging plan. Of course, the next question to ask is: "How do you know if a company is fundamentally sound?" We provide more detail in Chapter 8, but to answer this question, analyze the reasons for the security's decline in value. In many cases, it will be due to a disappointing earnings report or a warning about earnings prospects for the coming quarter or two. The problems may be relatively short-lived.

Just as schoolchildren have to submit a report card to their parents at the end of every term, a corporation's management must submit its report card (i.e., financial statements) to its investors at the end of each term (i.e., quarter). These financial statements

show in cold, hard figures the results of management's enterprise and skill. Distorting the figures is possible but can result in the loss of investor confidence. It can also be against the law.

A savvy management team, however, can always improve a company's position and make it more profitable in following quarters. Under truly good management, a company's recuperative powers can be astounding. When a corporation has thoroughly recovered from its cyclical slump, the market value of its shares should rise—perhaps substantially.

But if management is not competent and the company continues to flounder, you may want to take a much harder look at the reasons behind the fall. Also, a company's products may become obsolete, its patents can expire, and its markets may be lost because of changing consumer preferences.

When such things happen, earnings will continue to erode. Dividend cuts or omissions then become the rule of the day. You will want to find out if the long-term potential of the investment you are making is promising. If not, even a prudent investment methodology like dollar cost averaging will not make much sense.

How Dollar Cost Averaging Works

Could you save \$11 per day? Do you have an expensive coffee habit or other unnecessary expenditure you could cut out? If so, you could parlay your savings into a fortune. By using dollar cost averaging, you could have turned \$11 a day into a princely sum of more than \$1 million.

We use an example to demonstrate how just \$11 a day set aside for investment in the same stock could have created a sizable nest egg in just 20 years. For illustrative purposes, we use Apple Inc., the well-known maker of computers and consumer electronics. The stock trades on the NASDAQ under the ticker symbol AAPL. In selecting Apple for our example, we are not recommending the stock. We are merely trying to illustrate the power of dollar cost averaging. Of course, in reality you should never invest all of your money in just one stock. Keep in mind our previous discussion about the importance of diversification. In reality, dollar cost averaging would be a more appropriate strategy for diversified investment vehicles such as mutual funds.

In our example, we assume an investor put aside approximately \$11 per day and used the money to purchase shares of AAPL. To be exact, we assumed he bought \$1,000 worth of AAPL stock at the closing price on the last trading day of every calendar quarter beginning on December 31, 1989. We also assumed he paid a trading commission of \$20 every time he bought the stock. In reality, the commission could be higher or lower depending on whether it was paid to a full-service broker or an online discount broker. We show the investor's transactions in Table 1.4. Share prices have been adjusted for stock splits.

Table 1.4 Example of Dollar Cost Averaging with \$1,000 Quarterly Purchases of Apple, Inc. (AAPL)

Date	Investment	Share Price	Number of Shares Purchased	Number of Shares Owned	Wealth
Dec-89	\$1,000	\$ 8.81	111	111	\$ 980
Mar-90	1,000	10.06	97	209	2,099
Jun-90	1,000	11.19	88	296	3,314
Sep-90	1,000	7.25	135	431	3,128
Dec-90	1,000	10.75	91	523	5,617
Mar-91	1,000	17.00	58	580	9,863
Jun-91	1,000	10.38	94	675	6,999
Sep-91	1,000	12.38	79	754	9,329
Dec-91	1,000	14.09	70	823	11,605
Mar-92	1,000	14.56	67	891	12,970
Jun-92	1,000	12.00	82	972	11,668
Sep-92	1,000	11.28	87	1,059	11,949
Dec-92	1,000	14.94	66	1,125	16,801
Mar-93	1,000	12.88	76	1,201	15,462
Jun-93	1,000	9.88	99	1,300	12,839
Sep-93	1,000	5.84	168	1,468	8,578
Dec-93	1,000	7.31	134	1,602	11,713
Mar-94	1,000	8.31	118	1,720	14,295
Jun-94	1,000	6.53	150	1,870	12,212
Sep-94	1,000	8.42	116	1,986	16,728
Dec-94	1,000	9.75	101	2,087	20,346
Mar-95	1,000	8.84	111	2,198	19,435

(continued)

Table 1.4 (Continued)

Date	Investment	Share Price	Number of Shares Purchased	Number of Shares Owned	Wealth
Jun-95	\$1,000	\$ 11.61	84	2,282	\$ 26,491
Sep-95	1,000	9.31	105	2,387	22,230
Dec-95	1,000	7.97	123	2,510	20,004
Mar-96	1,000	6.14	160	2,670	16,395
Jun-96	1,000	5.25	187	2,856	14,996
Sep-96	1,000	5.55	177	3,033	16,825
Dec-96	1,000	5.22	188	3,221	16,810
Mar-97	1,000	4.56	215	3,436	15,674
Jun-97	1,000	3.56	275	3,711	13,218
Sep-97	1,000	5.42	181	3,892	21,100
Dec-97	1,000	3.28	299	4,190	13,748
Mar-98	1,000	6.88	143	4,333	29,788
Jun-98	1,000	7.17	137	4,469	32,055
Sep-98	1,000	9.53	103	4,572	43,578
Dec-98	1,000	10.23	96	4,668	47,772
Mar-99	1,000	8.98	109	4,777	42,917
Jun-99	1,000	11.35	86	4,863	55,176
Sep-99	1,000	15.83	62	4,925	77,969
Dec-99	1,000	25.71	38	4,964	127,627
Mar-00	1,000	33.95	29	4,992	169,506
Jun-00	1,000	26.19	37	5,030	131,715
Sep-00	1,000	12.88	76	5,106	65,739
Dec-00	1,000	7.41	132	5,238	38,794
Mar-01	1,000	11.04	89	5,327	58,784
Jun-01	1,000	11.63	84	5,411	62,907
Sep-01	1,000	7.76	126	5,538	42,945
Dec-01	1,000	10.95	89	5,627	61,618
Mar-02	1,000	11.74	84	5,711	67,015
Jun-02	1,000	8.86	111	5,821	51,577
Sep-02	1,000	7.25	135	5,957	43,185
Dec-02	1,000	7.17	137	6,093	43,658
Mar-03	1,000	7.07	139	6,232	44,059
Jun-03	1,000	9.53	103	6,335	60,370
Sep-03	1,000	10.36	95	6,429	66,608
Dec-03	1,000	10.69	92	6,521	69,677
Mar-04	1,000	13.52	72	6,594	89,144
Jun-04	1,000	16.27	60	6,654	108,257

Table 1.4 (Continued)

Date	Investment	Share Price	Number of Shares Purchased	Number of Shares Owned	Wealth
Sep-04	\$1,000	\$ 19.34	51	6,704	\$ 129,664
Dec-04	1,000	32.20	30	6,735	216,863
Mar-05	1,000	41.67	24	6,758	281,622
Jun-05	1,000	36.37	27	6,785	246,782
Sep-05	1,000	53.61	18	6,804	364,741
Dec-05	1,000	71.89	14	6,817	490,091
Mar-06	1,000	62.72	16	6,833	428,557
Jun-06	1,000	57.27	17	6,850	392,298
Sep-06	1,000	76.98	13	6,863	528,291
Dec-06	1,000	84.84	12	6,874	583,212
Mar-07	1,000	92.91	11	6,885	639,667
Jun-07	1,000	122.04	8	6,893	841,201
Sep-07	1,000	153.47	6	6,899	1,058,823
Dec-07	1,000	199.83	5	6,904	1,379,651
Mar-08	1,000	143.50	7	6,911	991,722
Jun-08	1,000	167.44	6	6,917	1,158,150
Sep-08	1,000	113.66	9	6,925	787,144
Dec-08	1,000	85.35	11	6,937	592,065
Mar-09	1,000	105.12	9	6,946	730,188
Jun-09	1,000	142.43	7	6,953	990,332
Sep-09	1,000	185.35	5	6,958	1,289,739
Dec-09	1,000	210.73	5	6,963	1,467,324
Mar-10	1,000	235.00	4	6,967	1,637,297

Stock prices have been adjusted to reflect stock splits. The example assumes a \$20 commission on every trade. Due to rounding, Number of Shares Owned column does not precisely equal the sum of the Number of Shares Purchased column.

There are some important points to notice. The dollar value of the stock the investor purchased every quarter remained constant, but the number of shares purchased fluctuated dramatically. The investor bought \$980 worth of stock every quarter (i.e., \$1,000 less the \$20 commission), but got more shares when the stock price was low and fewer shares when the stock price was high. The number of shares was not a conscious decision. It was a consequence of dollar cost averaging.

Notice also that the investor made 82 trades in total for \$82,000, spending \$1,640 on brokerage commissions and purchasing \$80,360 worth of stock. At the end of the program, he had accumulated

6,967 shares of AAPL stock. The average purchase price was \$82,000 divided by 6,967, or \$11.77 per share. However, the stock's actual market price was much higher. In fact, by March 2010, his investment had a market value of more than \$1.6 million!

Investment Insight

Another cost-effective way to make regular, periodic investments is through a company's dividend reinvestment plan (DRIP). However, not all companies offer DRIPs. Those that do will often allow you to purchase additional shares of stock without paying a brokerage commission. Some may even allow you to buy shares at a discount to the current share price. We further discuss DRIPs in Chapter 3.

Ideal Investments for Dollar Cost Averaging

Use dollar cost averaging with well-established companies that promise—at the very least—to return to previous price levels in the future. If the stock pays a dividend, so much the better. Dividends are even more attractive during periods when they are taxed at lower rates than other kinds of income. Volatile stocks are particularly good candidates for dollar cost averaging.

Well-diversified mutual funds that have gone through different market cycles and remained top performers are also ideal candidates for dollar cost averaging. When selecting a mutual fund, remember that a load or sales charge will reduce the amount of money that actually gets invested. Mutual funds may also have other fees. Sometimes these fees are justified if the fund outperforms on an after-fee basis. However, there are many no-load funds available that have low fees. Index funds, in particular, typically do not charge loads and have very low management fees. You can research mutual fund fees on the Internet or at the library. *Forbes* magazine also publishes an annual mutual fund survey that rates hundreds of funds, including the no-load funds. You can find out more at www.forbes.com.

Dollar cost averaging works best with investments that fluctuate in price over time. The fluctuations allow you to purchase more

shares when the price falls. When the price eventually rebounds, you benefit from having bought more shares. However, if the price is very stable, this opportunity does not present itself.

One caution about instituting a dollar cost averaging plan: Do not begin unless you can stick with it. An excellent way to stick with a plan is to use payroll deduction. Many employers offer retirement plans, such as 401(k) plans. When you participate in these plans, you automatically invest a fixed amount of money with each paycheck through payroll deduction. This form of dollar cost averaging is ideal because it requires action on your part to stop it rather than to continue it.

A final note about dollar cost averaging: Do not dollar cost average with existing investment capital. That is, if you have funds currently available for investment, put them to use quickly. Research shows that you are better off investing that money right away rather than investing it slowly over time. This is because the market tends to move up over time. While this may be difficult to believe given some of the sell-offs we have witnessed in recent years, it is true nonetheless. Dollar cost averaging is best suited for investing excess income as you receive it.

Chapter Takeaways

Building wealth is a cumulative process. Publicly traded stocks are a good vehicle for building wealth, because they offer liquidity and the potential to earn returns in excess of inflation. However, stocks also carry risks. Their prices can fluctuate tremendously. This risk is magnified when you use margin (i.e., borrowed money) to purchase securities. The best way to build wealth and manage risk is to establish and follow a disciplined investment plan. Begin by taking a personal financial inventory. Create a personal balance sheet to determine your net worth and how your capital is currently invested. Use an income statement to evaluate your income and expenses. These steps will help you calculate the amount of capital you have available for investment purposes.

Next, begin to form your investment program. Identify your goals and establish your risk tolerance levels. The amount

of risk you are willing to accept depends on, among other things, your life stage, time horizon, return requirements, and emotional tolerance for loss. Generally speaking, the longer your investment horizon, the more risk you should be able to tolerate. However, the more you will depend on your investment income, the less risk you can tolerate. You can mitigate risk by diversifying your portfolio among several asset classes. Stocks are just one asset class. Other asset classes include bonds, real estate, and cash. Not only should you diversify across asset classes, but you should also diversify within each asset class. Consider short-term and long-term bonds, small-cap and large-cap stocks, and so forth. You should also consider adding foreign securities to your portfolio. Ultimately, in order to manage risk, you want to minimize the correlation of assets within your portfolio. Diversification, however, should not be your only risk management tool.

Once you establish an investment plan, consider using dollar cost averaging to get started. Invest the same amount of money every period. This disciplined approach forces you to buy more shares when prices are low and fewer shares when prices are high. Over time, dollar cost averaging will reduce the average price you pay for a stock.
