chapter

16

Financial Decisions and Risk Management

After reading this chapter, you should be able to:

LO-1 Describe the responsibilities of a *financial manager*.

LO-2 Distinguish between *short-term (operating)* and *long-term (capital)* expenditures.

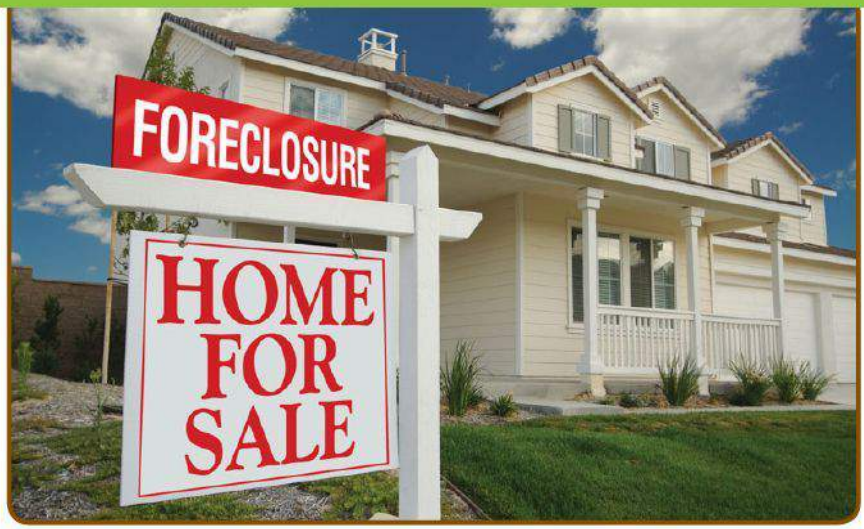
LO-3 Identify four sources of *short-term financing* for businesses.

LO-4 Distinguish among the various sources of *long-term financing* and explain the risks involved in each.

LO-5 Discuss some key issues in financial management for small businesses.

LO-6 Explain how *risk* affects business operations and identify the five steps in the *risk-management process*.

SCANLIFE



The Source of a Meltdown, the Joy of a Bounce Back, and the Prospects Ahead

A financial crisis began in the United States in September of 2008 and quickly spread to the world economy. Stock markets dropped disastrously, investment banks failed, and consumer and business credit became very difficult to obtain. For most people, the crisis was sudden and unexpected, and they did not understand what had gone wrong. Overall, the cause was a combination of regulatory failure, low interest rates, and greed on the part of financial institutions and individuals. But in the next 18 months, a confusing combination of events occurred: (1) an apparent low was reached, (2) stocks then rose very sharply, and (3) volatility returned once again. Some were preaching that the market was working out the kinks, but many experts feared the worst and reminded anyone who would listen of lessons from 1929, 1930, and the historical mess that followed.

The seeds of the 2008 financial meltdown were actually sown back in 2000, when the tech bubble burst and a recession ensued. The Bank of Canada, the U.S. Federal Reserve, and central banks around the world cut interest rates to encourage investment and get their economies moving again. It worked, but the low interest rates caused a boom in real estate values in the United States. Many people who had previously not been able to get a mortgage suddenly found that banks were eager to lend them money. Not surprisingly, the increased demand for houses caused home prices to increase. Low interest rates also caused investors to look for ways to make a greater return on their money, and that often led them to higher-risk investments that gave a greater return.

How Will This Help Me?

The opening case shows the importance of understanding and managing risk with respect to the financial activities of business firms. The material in this chapter will benefit you in two ways: (1) you will be better able to use your knowledge about finance in your career as both an *employee* and as a *manager*, and (2) you will be a more informed *consumer*, with greater awareness of how businesses use financial instruments to support their activities.

The increase in housing prices was very pronounced in the United States because of the activity of companies like the Federal National Mortgage Association (nicknamed Fannie Mae) and the Federal Home Mortgage Corporation (nicknamed Freddie Mac). Fannie Mae was formed during the Great Depression of the 1930s to encourage banks to extend credit to homeowners. It was privatized in 1968. Freddie Mac was formed in 1970 to prevent monopolization in the home mortgage market. As time went on, these two companies (which together guarantee nearly half the mortgages in the United States) made increasingly risky loans to homeowners, and this added to the problem.

During the period from 2003 to 2006, almost anyone in the United States could qualify for a mortgage (even though they couldn't actually make their monthly payments). These mortgages came to be called NINJA loans (because the borrower had no income, no job, and no assets). Brokers who arranged such loans had a big incentive to do so—they received from $1000 to as much as $10 000 for each loan they arranged. Investment banks and other financial institutions started borrowing money so they could lend it to all the people who wanted to buy houses. These financial institutions then issued assets (called collateralized debt obligations, or CDOs) to cover their costs. These CDOs were marketed to investors as being very safe because the collateral backing them up was the homes that had been purchased with the money. This would not have been a problem if housing prices had continued to rise, but they didn't, and here's why: the mortgages came with very low "teaser" rates for the first year or two, after which the rate of interest charged increased sharply. Once people got into the third or fourth year of their mortgage, their monthly costs went way up and they couldn't make their payments. So they defaulted on their loans and the banks wound up foreclosing on the homes. This caused a drop in demand for homes, which caused housing prices to drop. As time passed, more and more people got into trouble because many of them owed more on their mortgage than the new lower value of their home. Many simply walked away from their homes and stopped making payments.

When housing prices dropped, financial institutions had to borrow more money to make up for the reduced value of their CDO assets. But by then investors had become aware of the problems and were reluctant to loan money to anybody. Because banks held so much bad debt, they were also unwilling to loan money (to consumers and to each other), and this caused a liquidity crisis. The London Interbank Offered Rate (LIBOR) is the rate large banks charge each other when making loans; in September 2008, the rate went as high as 6 percent, which indicated considerable mistrust between banks.

The crisis was worsened by credit default swaps. These are essentially insurance against defaults on mortgage loans, and they work like this: Let's say that an investor buys bonds from Corporation X. The investor can buy a credit default swap from a company like American International Group (AIG) that guarantees that the investor will get his or her money back if Corporation X defaults on its bond payments. The investor pays AIG a fee (the equivalent of an insurance premium). Because the aforementioned CDOs were assumed to be very safe investments, very low premiums were charged for credit default swaps. When the housing market went bust, the companies that sold credit default swaps were in big financial trouble because they had to come up with collateral for all those defaulted mortgages (which they had earlier assumed would never be in default). For example, AIG had $300 billion of credit default swaps on its books, and it charged far too little for them.

Stock markets plunged as the credit crisis worsened, and this meant huge losses for Canadians who had bought stocks. This development was particularly problematic for people who were about to retire because the value of their stocks declined by as much as 50 percent in just a few months. By the end of 2008, most economists were predicting a deep and lengthy recession for the world economy.

The financial difficulties also caused the bankruptcy of large investment banks like Bear Stearns and Lehman Brothers. Merrill Lynch & Co. was also in trouble and was taken over by Bank of America. Fannie Mae, Freddie Mac, and AIG were essentially taken over by the U.S. government (total cost: $285 billion). But the bailout of individual companies was not enough. It was becoming apparent that the entire world's financial system was getting very close to a complete meltdown. To deal with the crisis, U.S. legislators agreed to form a $700 billion bailout fund that gave the U.S. Treasury the authority to buy up so-called "toxic" mortgages and other bad debts that were held by banks. The central governments of Britain, Germany, France, and Italy also developed multibillion-dollar bailout plans. The idea was that if banks around the world were relieved of their bad debts, they would start loaning money again to people who wanted to buy houses, and that would stabilize the housing markets. Loans would also encourage consumers to start buying again, and that demand would create jobs in both goods- and service-producing companies.

A funny thing happened in 2009; stocks rose sharply. For example, the TSX composite was up 35 percent for the year and up approximately 54 percent since reaching lows in March. By mid 2010, the market was trading at around 11 700, up significantly from 7724 a year earlier, but pretty much where it ended the previous year. But everything was not calm. There was a lot of volatility in the market. Part of it was being sparked by the sovereign debt crisis in Europe. Greece stood at the epicentre of this latest shock, which remained in the headlines for months. However, this new crisis was not about one small nation. It forced investors and governments to look at their own debt shortcomings and the shortcomings of their key trading partners. In an environment of fear everyone tries to minimize risk. The panic that often follows leads to devastating results in markets.

Legitimate questions loomed. Was the bounce back real or artificial? To support citizens and corporations, governments spent money and took on great debt levels to flood the markets with cash. Bailouts became a part of daily conversation. Spending was out of control. In 2010, total public and private debt per person amounted to $23 324 in Canada, $44 759 in the United States, and a whopping $147 898 in Britain.

What did this all mean? At the time, some people were pointing to eerie parallels between 2010 and 1930, when the stock market increased by over 50 percent, from 1929 lows, before subsequently plunging even further than those original lows. Government mismanagement and inadequate regulation was a major issue at that time as well. Others were more optimistic. But it was clearly a risky period for investors and corporations in the markets.

LO-1 The Role of the Financial Manager

Financial managers plan and control the acquisition and dispersal of the company's financial assets. The business activity known as **finance** (or corporate finance) typically involves four responsibilities:

1. determining a firm's long-term investments
2. obtaining funds to pay for those investments
3. conducting the firm's everyday financial activities
4. managing the risks that the firm takes

Objectives of the Financial Manager

A financial manager's overall objective is to increase a firm's value and stockholders' wealth. Financial managers do many specific things to increase a firm's value: collect funds, pay debts, establish trade credit, obtain loans, control cash balances, and plan for future financial needs. Whereas accountants create data to reflect a firm's financial status, financial managers make decisions for improving that status. Financial managers must ensure that a company's revenues exceed its costs—in other words, that it earns a profit. In sole proprietorships and partnerships, profits translate directly into increases in owners' wealth. In corporations, profits translate into an increase in the value of common stock.

Responsibilities of the Financial Manager

The various responsibilities of the financial manager in increasing a firm's wealth fall into three general categories: *cash flow management*, *financial control*, and *financial planning*.

Cash Flow Management To increase a firm's value, financial managers must ensure that it always has enough funds on hand to purchase the materials and human resources that it needs to produce goods and services. Funds that are not needed immediately must be invested to earn more money. This activity—**cash flow management**—requires careful planning. If excess cash balances are allowed to sit idle instead of being invested, a firm loses the interest that it could have earned. One study revealed that companies averaging $2 million in annual sales typically hold $40 000 in non-interest-bearing accounts. Larger companies hold even larger sums. By putting idle cash to work, firms not only gain additional income, they also avoid having to borrow from outside sources. The savings on interest payments can be huge.

FINANCIAL MANAGERS Those managers responsible for planning and overseeing the financial resources of a firm.

FINANCE The business function involving decisions about a firm's long-term investments and obtaining the funds to pay for those investments.

CASH FLOW MANAGEMENT Managing the pattern in which cash flows into the firm in the form of revenues and out of the firm in the form of debt payments.

FINANCIAL CONTROL The process of checking actual performance against plans to ensure that the desired financial status is achieved.

Financial Control Because things never go exactly as planned, financial managers must be prepared to make adjustments for actual financial changes that occur each day. **Financial control** is the process of checking actual performance against plans to ensure that the desired

FINANCIAL PLAN
A description of how a business will reach some financial position it seeks for the future; includes projections for sources and uses of funds.

CREDIT POLICY
Rules governing a firm's extension of credit to customers.

financial outcome occurs. For example, planned revenues based on forecasts usually turn out to be higher or lower than actual revenues. Why? Simply because sales are unpredictable. Control involves monitoring revenue inflows and making appropriate financial adjustments. Higher-than-expected revenues, for instance, may be deposited in short-term interest-bearing accounts, or they may be used to pay off short-term debt. Otherwise earmarked resources can be saved or put to better use. In contrast, lower-than-expected revenues may necessitate short-term borrowing to meet current debt obligations.

Budgets are often the backbone of financial control (see Chapter 11). The budget provides the "measuring stick" against which performance is evaluated. The cash flows, debts, and assets not only of the whole company but of each department are compared at regular intervals against budgeted amounts. Discrepancies indicate the need for financial adjustments so that resources are used to the best advantage.

Financial Planning The cornerstone of effective financial management is the development of a **financial plan**, which describes a firm's strategies for reaching some future financial position. In constructing the plan, a financial manager must ask several questions:

- What funds are needed to meet immediate plans?
- When will the firm need more funds?
- Where can the firm get the funds to meet both its short- and long-term needs?

To answer these questions, a financial manager must develop a clear picture of why a firm needs funds. Managers must also assess the relative costs and benefits of potential funding sources. In the following sections, we examine the main reasons for which companies generate funds and describe the main sources of business funding, both for the short and long term.

LO-2 Why Businesses Need Funds

Every company needs money to survive. Failure to make a contractually obligated payment can lead to bankruptcy and the dissolution of the firm. But the successful financial manager must distinguish between two kinds of financial outlays: *short-term (operating)* expenditures and *long-term (capital)* expenditures.

Short-Term (Operating) Expenditures

A firm incurs short-term expenditures regularly in its everyday business activities. To handle these expenditures, financial managers must pay attention to *accounts payable*, *accounts receivable*, and *inventories*.

Accounts Payable In Chapter 11, we defined *accounts payable* as unpaid bills owed to suppliers plus wages and taxes due within a year. For most companies, this is the largest single category of short-term debt. To plan for funding flows, financial managers want to know in advance the amounts of new accounts payable, as well as when they must be repaid. For information about such obligations and needs—say, the quantity of supplies required by a certain department in an upcoming period—financial managers must rely on other managers. The Team Ethics exercise at the end of the chapter presents an interesting dilemma regarding accounts payable.

Accounts Receivable As we also saw in Chapter 11, *accounts receivable* refers to funds due from customers who have bought on credit. A sound financial plan requires financial managers to project accurately both how much credit is advanced to buyers and when they will make payments. For example, managers at Kraft Foods must know how many dollars worth of cheddar cheese Safeway supermarkets will order each month; they must also know Safeway's payment schedule. Because accounts receivable represents an investment in products for which a firm has not yet received payment, they temporarily tie up its funds. Clearly, the seller wants to receive payment as quickly as possible.

Credit Policies Predicting payment schedules is a function of **credit policy**—the rules governing a firm's extension of credit to customers. This policy sets standards as to which buyers are eligible for what type of credit. Typically, credit is extended to customers who have the ability to pay and who honour their obligations. Credit is denied to firms with poor payment histories.

Credit policy also sets payment terms. For example, credit terms of "2/10, net 30" mean that the selling company offers a 2 percent discount if the customer pays within 10 days. The customer has 30 days to pay the regular price. Under these terms, the buyer would have to pay only $980 on a $1000 invoice on days 1 to 10, but all $1000 on days 11 to 30. The higher the discount, the more incentive buyers have to pay early. Sellers can thus adjust credit terms to influence when customers pay their bills.

Inventories Between the time a firm buys raw materials and the time it sells finished products, it ties up funds in **inventory**—materials and goods that it will sell within the year. Failure to manage inventory can have grave financial consequences. Too little inventory of any kind can cost a firm sales, while too much inventory means tied-up funds that cannot be used elsewhere. In extreme cases, a company may have to sell excess inventory at low prices simply to raise cash.

The basic supplies a firm buys to use in its production process are its **raw materials inventory**. Levi Strauss's raw materials inventory includes huge rolls of denim. **Work-in-process inventory** consists of goods partway through the production process. Cut-out but not-yet-sewn jeans are part of the work-in-process inventory at Levi's. Finally, **finished goods inventory** are the items that are ready for sale (completed blue jeans ready for shipment to Levi dealers).

Long-Term (Capital) Expenditures

Companies need funds to cover long-term expenditures for fixed assets. As noted in Chapter 11, fixed assets are items that have a lasting use or value, such as land, buildings, and machinery. Long-term expenditures are usually more carefully planned than short-term outlays because they pose special problems. They differ from short-term outlays in the following ways, all of which influence the ways that long-term outlays are funded:

- unlike inventories and other short-term assets, they are not normally sold or converted to cash
- their acquisition requires a very large investment
- they represent a binding commitment of company funds that continues long into the future

In 2010, General Motors decided to invest $200 million in its St. Catharines, Ontario, engine plant in order to install a new flexible assembly line for a new generation of V8 engines. This is part of a strategy that involved $850 million being invested in five North American plants. It also came just a week after GM had announced that it repaid the loan portion ($8 billion) of its $60 billion government bailout.[1]

LO-3 Sources of Short-Term Funds

Firms can call on many sources for the funds they need to finance day-to-day operations and to implement short-term plans. These sources include *trade credit*, *secured and unsecured loans*, and *factoring of accounts receivable*.

Trade Credit

Accounts payable are not merely an expenditure. They are also a source of funds to the company, which has the use of both the product purchased and the price of the product until the time it pays its bill. **Trade credit**, the granting of credit by one firm to another, is effectively a short-term loan. Trade credit can take several forms.

- The most common form, **open-book credit**, is essentially a "gentlemen's agreement." Buyers receive merchandise along with invoices stating credit terms. Sellers ship products on faith that payment will be forthcoming.
- When sellers want more reassurance, they may insist that buyers sign legally binding **promissory notes** before merchandise is shipped. The agreement states when and how much money will be paid to the seller.
- The **trade draft** is attached to the merchandise shipment by the seller and states the promised date and amount of payment due. To take possession of the merchandise, the buyer must sign the draft. Once signed by the buyer, the document becomes a **trade acceptance**. Trade drafts and trade acceptances are useful forms of credit in international transactions.

Secured Short-Term Loans

For most firms, bank loans are a vital source of short-term funding. Such loans almost always involve a promissory note in which the borrower promises to repay the loan plus interest. In **secured loans**, banks also require the borrower to put up collateral—to give the bank the right to seize

INVENTORY Materials and goods currently held by the company that will be sold within the year.

RAW MATERIALS INVENTORY That portion of a firm's inventory consisting of basic supplies used to manufacture products for sale.

WORK-IN-PROCESS INVENTORY That portion of a firm's inventory consisting of goods partway through the production process.

FINISHED GOODS INVENTORY That portion of a firm's inventory consisting of completed goods ready for sale.

TRADE CREDIT The granting of credit by a selling firm to a buying firm.

OPEN-BOOK CREDIT Form of trade credit in which sellers ship merchandise on faith that payment will be forthcoming.

PROMISSORY NOTE Form of trade credit in which buyers sign promise-to-pay agreements before merchandise is shipped.

TRADE DRAFT Form of trade credit in which buyers must sign statements of payment terms attached to merchandise by sellers.

TRADE ACCEPTANCE Trade draft that has been signed by the buyer.

SECURED LOANS A short-term loan in which the borrower is required to put up collateral.

COLLATERAL Any asset that a lender has the right to seize if a borrower does not repay a loan.

PLEDGING ACCOUNTS RECEIVABLE Using accounts receivable as collateral for a loan.

UNSECURED LOAN A short-term loan in which the borrower is not required to put up collateral.

LINE OF CREDIT A standing agreement between a bank and a firm in which the bank specifies the maximum amount it will make available to the borrower for a short-term unsecured loan; the borrower can then draw on those funds, when available.

REVOLVING CREDIT AGREEMENT A guaranteed line of credit for which the firm pays the bank interest on funds borrowed, as well as a fee for extending the line of credit.

COMMERCIAL PAPER A method of short-run fundraising in which a firm sells unsecured notes for less than the face value and then repurchases them at the face value within 270 days; buyers' profits are the difference between the original price paid and the face value.

certain assets if payments are not made. Inventories, accounts receivable, and other assets (e.g., stocks and bonds) may serve as **collateral** for a secured loan.

Secured loans allow borrowers to get funds when they might not qualify for unsecured credit. Moreover, they generally carry lower interest rates than unsecured loans.

Inventory as Collateral When a loan is made with inventory as a collateral asset, the lender lends the borrower some portion of the stated value of the inventory. Inventory is more attractive as collateral when it can be readily converted into cash. Boxes full of expensive, partially completed lenses for eyeglasses are of little value on the open market. Meanwhile, a thousand crates of canned tomatoes might well be convertible into cash.

Accounts Receivable as Collateral When accounts receivable are used as collateral, the process is called **pledging accounts receivable**. In the event of non-payment, the lender may seize the receivables (funds owed the borrower by its customers). If these assets are not enough to cover the loan, the borrower must make up the difference. This option is especially important to service companies such as accounting firms and law offices. Because they do not maintain inventories, accounts receivable are their main source of collateral. Typically, lenders that will accept accounts receivable as collateral are financial institutions with credit departments capable of evaluating the quality of the receivables.

Factoring Accounts Receivable A firm can raise funds rapidly by *factoring* (that is, selling) its accounts receivable. The purchaser of the receivables (called a *factor*) might, for example, buy $40 000 worth of receivables for 60 percent of that sum ($24 000). The factor profits to the extent that the money it eventually collects exceeds the amount it paid. This profit depends on the quality of the receivables, the cost of collecting them, and interest rates.

Unsecured Short-Term Loans

With an **unsecured loan**, the borrower does not have to put up collateral. In many cases, however, the bank requires the borrower to maintain a *compensating balance*—the borrower must keep a portion of the loan amount on deposit with the bank in a non-interest-bearing account.

The terms of the loan—amount, duration, interest rate, and payment schedule—are negotiated. To receive an unsecured loan, a firm must ordinarily have a good banking relationship with the lender. Once an agreement is made, a promissory note will be executed and the funds transferred to the borrower. Although some unsecured loans are one-time-only arrangements, many take the form of *lines of credit*, *revolving credit agreements*, or *commercial paper*.

Lines of Credit A standing agreement with a bank to lend a firm a maximum amount of funds on request is called a **line of credit**. With a line of credit, the firm knows the maximum amount it will be allowed to borrow if the bank has sufficient funds. The bank does not guarantee that the funds will be available when requested. For example, suppose that RBC gives Sunshine Tanning Inc. a $100 000 line of credit for the coming year. By signing promissory notes, Sunshine's borrowings can total up to $100 000 at any time. The bank may not always have sufficient funds when Sunshine needs them. But Sunshine benefits from the arrangement by knowing in advance that the bank regards the firm as creditworthy and will lend funds to it on short notice.

Revolving Credit Agreements Revolving credit agreements are similar to bank credit cards for consumers. Under a **revolving credit agreement**, a lender agrees to make some amount of funds available on demand to a firm for continuing short-term loans. The lending institution guarantees that funds will be available when sought by the borrower. In return, the bank charges a *commitment fee*—a charge for holding open a line of credit for a customer even if the customer does not borrow any funds. The commitment fee is often expressed as a percentage of the loan amount, usually 0.5 to 1 percent of the committed amount. For example, suppose that RBC agrees to lend Sunshine Tanning up to $100 000 under a revolving credit agreement. If Sunshine borrows $80 000, it still has access to $20 000. If it pays off $50 000 of the debt, reducing its debt to $30 000, then $70 000 is available. Sunshine pays interest on the borrowed funds and also pays a fee on the unused funds in the line of credit.

Commercial Paper Some firms can raise short-term funds by issuing commercial paper. Since **commercial paper** is backed solely by the issuing firm's promise to pay, it is an option for only the largest and most

creditworthy firms. Here's how it works: Corporations issue commercial paper with a face value. Companies that buy commercial paper pay less than that value. At the end of a specified period (usually 30 to 90 days but legally up to 270 days), the issuing company buys back the paper—*at the face value*. The difference between the price the buying company paid and the face value is the buyer's profit. For example, if Air Canada needs to borrow $10 million for 90 days, it might issue commercial paper with a face value of $10.2 million. Insurance companies with $10 million excess cash will buy the paper. After 90 days, Air Canada would pay $10.2 million to the insurance companies.

LO-4 Sources of Long-Term Funds

Firms need long-term funding to finance expenditures on fixed assets—the buildings and equipment necessary for conducting business. They may seek long-term funds through *debt financing* (outside the firm) or through *equity financing* (from internal sources), or *hybrid financing* (a middle ground). In making decisions about sources of long-term funds, companies must consider the *risk–return relationship*.

Debt Financing

Long-term borrowing from outside the company—**debt financing**—is a major component of most firms' long-term financial planning. The two primary sources of such funding are long-term loans and the sale of bonds.

Long-Term Loans Most corporations get their long-term loans from a chartered bank, usually one with which the firm has developed a long-standing relationship. But credit companies, insurance companies, and pension funds also grant long-term business loans.

Long-term loans are attractive to borrowers for several reasons:

- the number of parties involved is limited, so loans can often be arranged quickly
- the duration of the loan is easily matched to the borrower's needs
- if the firm's needs change, loans usually contain clauses making it possible to change terms

Long-term loans also have some disadvantages. Large borrowers may have trouble finding lenders to supply enough funds. Long-term borrowers may also have restrictions placed on them as conditions of the loan. They may have to pledge long-term assets as collateral. And they may have to agree not to take on any more debt until the borrowed funds are repaid.

Interest Rates Interest rates are negotiated between the borrower and lender. Although some bank loans have fixed rates, others have floating rates tied to the prime rate that they charge their most creditworthy customers (see Chapter 15). For example, a company may negotiate a loan at prime +1 percent. If prime is 3 percent at that particular time, the company will pay 4 percent (3 percent + 1 percent). The prime rate itself goes up and down as market conditions change.

DEBT FINANCING
Raising money to meet long-term expenditures by borrowing from outside the company; usually takes the form of long-term loans or the sale of corporate bonds.

CORPORATE BOND
A promise by the issuing company to pay the holder a certain amount of money on a specified date, with stated interest payments in the interim; a form of long-term debt financing.

Corporate Bonds A **corporate bond** is a contract—a promise by the issuing company or organization to pay the holder a certain amount of money on a specified date. Most bonds pay interest semi-annually or annually. If it fails to make a bond payment, the company is in default. In many cases, bonds may not be redeemed for 30 years.

Corporate bonds are the major source of long-term debt financing for most corporations. Bonds are attractive when companies need large amounts of funds for long periods of time. The issuing company gets access to large numbers of lenders through nationwide bond markets. But bonds involve expensive administrative and selling costs. They also may require very high interest payments if the issuing company has a poor credit rating.

The proceeds from this corporate bond can be used to purchase fixed assets that are necessary for the production of goods and services.

BOND INDENTURE
Indicates the key terms of a bond, such as the amount, the interest rate, and the maturity date.

EQUITY FINANCING
Raising money to meet long-term expenditures by issuing common stock or by retaining earnings.

Table 16.1 Stockholders' Equity for Sunshine Tanning	
Common Stockholders' Equity, 2003	
Initial common stock (500 shares issued @ $20 per share, 2003)	$10 000
Total stockholders' equity	$10 000
Common Stockholders' Equity, 2009	
Initial common stock (500 shares issued @ $20 per share, 2003)	$10 000
Additional paid-in capital (500 shares issued @ $100 per share, 2009)	50 000
Total stockholders' equity	$60 000

Bond Indenture The **bond indenture** spells out the terms of a bond, including the amount to be paid, the interest rate, and the maturity (payoff) date. The indenture also identifies which of the firm's assets, if any, are pledged as collateral. Because of the risk of default, debt financing appeals most strongly to companies that have predictable profits and cash flow patterns. For example, demand for electric power is quite steady from year to year and predictable from month to month. Thus, provincial hydroelectric utility companies enjoy steady streams of income and can carry substantial amounts of debt.

With the equity markets in turmoil, many companies were turning to the bond market in 2010. According to Colleen Campbell of BMO Nesbitt Burns, the bond market was in the midst of the highest demand she had seen in her 30-year career. In 2009, bond sales stood at $148 billion, up from $118 billion a year earlier.[2]

Equity Financing

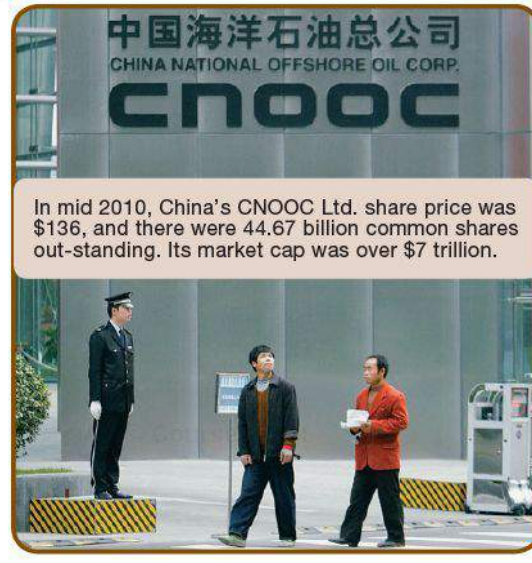
Sometimes, looking inside the company for long-term funding is preferable to looking outside. In most cases, **equity financing** takes the form of issuing common stock or of retaining the firm's earnings. Both options involve putting the owners' capital to work.

Issuing Common Stock By selling shares, the company gets the funds it needs to buy land, buildings, and equipment. When shareholders purchase common stock, they seek profits in the form of both dividends and increases in the price of the stock. In 2010, Kanata, Ontario–based Mitel Networks Corporation, which specializes in communications for small- and medium-sized businesses, was looking to sell about 18.5 million shares to raise $180 million to pay down some of its existing heavy debt load.[3]

Let's look at a particular example in detail. Suppose that Sunshine Tanning's founders invested $10 000 in buying the original 500 shares of common stock (at $20 per share) in 2003. If the company used these funds to buy equipment and succeeded financially, by 2009 it may have needed further funds for expansion. A pattern of profitable operations and regularly paid dividends enabled Sunshine to raise $50 000 by selling 500 new shares of stock for $100 per share. This additional paid-in capital would increase the total shareholders' equity to $60 000, as shown in Table 16.1.

The use of equity financing via common stock can be expensive because paying dividends is more expensive than paying bond interest. Why? Interest paid to bondholders is a business expense and, hence, a tax deduction for the firm. Stock dividends are not tax-deductible. So, as you can see, financial managers and executives can spend considerable time in deciding on the question of debt or equity financing.

Retained Earnings Another approach to equity financing is to use *retained earnings*. These earnings represent profits not paid out in dividends. Using retained earnings means that the firm will not have to borrow money and pay interest on loans or bonds. A firm that has a history of reaping much higher profits by successfully reinvesting retained earnings may be attractive to some investors. But the smaller dividends that can be paid to shareholders as a result of retained earnings may decrease demand for—and thus the price of—the company's stock. In 2010, Hertz bought out the Dollar Thrifty Automotive Group for US$1.17 billion. About 80 percent of that deal was financed with cash from Hertz, with the remaining 20 percent coming in the form of Hertz stock.[4]



In mid 2010, China's CNOOC Ltd. share price was $136, and there were 44.67 billion common shares out-standing. Its market cap was over $7 trillion.

Let's revisit our Sunshine Tanning example. If the company had net earnings of $50 000 in 2010, it could pay a $50-per-share dividend on its 1000 shares of common stock. But if it plans to remodel at a cost of $30 000 and retains $30 000 of earnings to finance the project, only $20 000 is left to distribute for stock dividends ($20 per share).

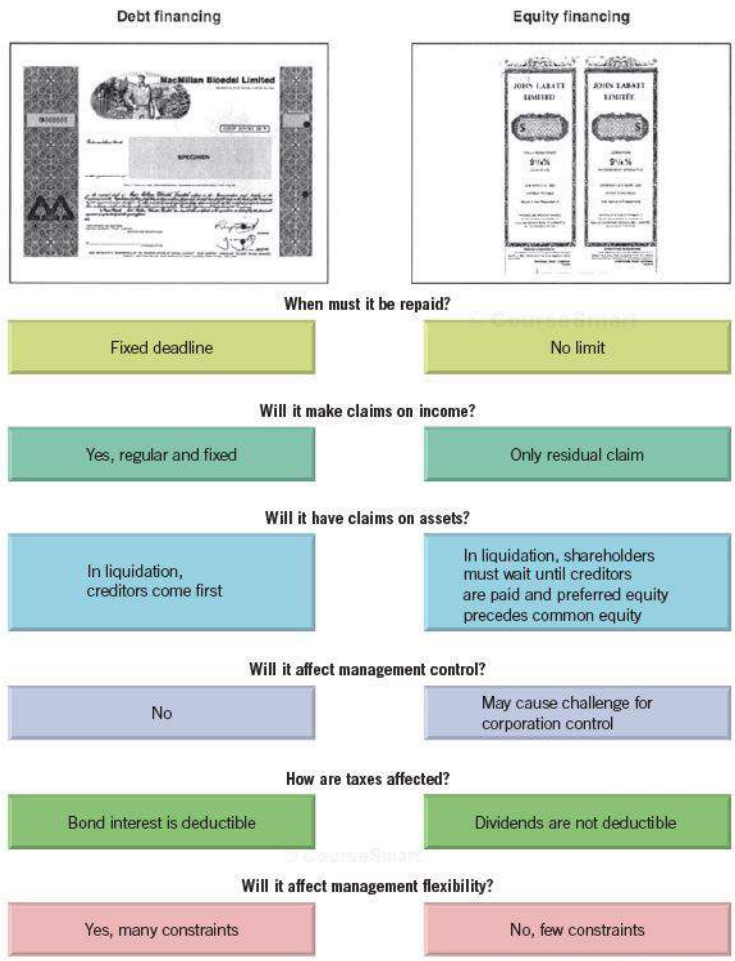
Since equity funding can be expensive, why don't firms rely totally on debt capital? Because long-term loans and bonds carry fixed interest rates and represent a fixed promise to pay regardless of the profitability of the firm. If the firm defaults on its obligations, it may lose its assets and go into bankruptcy. In 2009, CanWest Global announced that it was halting interest payments of $30.4 million to bondholders as it tried to recapitalize the company and avoid bankruptcy. The firm said it might replace the old debt with new debt, guaranteeing that bondholders would get their money from cash that CanWest was planning to generate by selling some of its assets.[5]

the **capital structure** of the firm. Financial plans contain targets for the capital structure, such as 40 percent debt and 60 percent equity. But choosing a target is not easy. A wide range of debt-versus-equity mixes is possible.

CAPITAL STRUCTURE
Relative mix of a firm's debt and equity financing.

The most conservative strategy is to use all equity financing and no debt because a company has no formal obligations for financial payouts. But as we have noted, equity is a very expensive source of capital. The riskiest strategy would be to use all debt financing. While less expensive than equity funding, indebtedness increases the risk that a firm will be unable to meet its obligations and will go bankrupt. Somewhere between the two extremes, financial planners try to find a mix that will maximize stockholders' wealth. Figure 16.1 summarizes

Figure 16.1
Comparing debt and equity financing.



Hybrid Financing: Preferred Stock

Preferred stock is a hybrid investment because it has some of the features of corporate bonds and some features of common stock. As with bonds, payments on preferred stock are for fixed amounts, such as $6 per share per year. Unlike bonds, however, preferred stock never matures. It can be held indefinitely, like common stock. And dividends need not be paid if the company makes no profit. If dividends are paid, preferred stockholders receive them first in preference to dividends on common stock. A major advantage of preferred stock to the issuing corporation is its flexibility. It secures funds for the firm without relinquishing control, since preferred stockholders have no voting rights. It does not require repayment of principal, or the payment of dividends in lean times.

Choosing Between Debt and Equity Financing

Financial planning involves striking a balance between debt and equity financing to meet the firm's long-term need for funds. Because the mix of debt and equity provides the firm's financial base, it is called

RISK–RETURN RELATIONSHIP
Shows the amount of risk and the likely rate of return on various financial instruments.

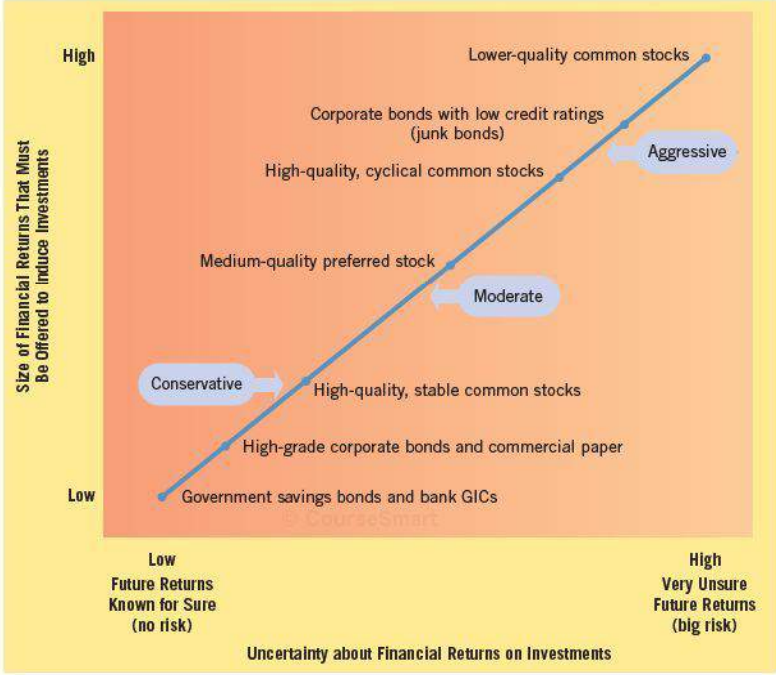
the factors management takes into account when deciding between debt and equity financing. The boxed insert entitled "An Online Community for People 50 and Older" describes one small company's fundraising dilemma.

The Risk–Return Relationship

While developing plans for raising capital, financial managers must be aware of the different motivations of individual investors. Why do some individuals and firms invest in stocks while others invest only in bonds? Investor motivations determine who is willing to buy a given company's stocks or bonds. Everyone who invests money is expressing a personal preference for safety versus risk. Investors give money to firms and, in return, anticipate receiving future cash flows.

Some cash flows are more certain than others. Investors generally expect to receive higher payments for higher uncertainty. They do not generally expect large returns for secure investments such as government-insured bonds. Each type of investment, then, has a **risk–return relationship**. Figure 16.2 shows the general risk–return relationship for various financial instruments.

Figure 16.2
The risk–return relationship.



ENTREPRENEURSHIP AND NEW VENTURES

An Online Community for People 50 and Older

The social networking site Facebook began specifically for college students, and over 80 percent of its users are under the age of 35. That's one reason Kelly and Jeff Lantz founded 55-Alive!, a social networking site for users over 50 years old. Launched in 2005, the company had a meagre $5000 in revenues in its first year. The following year, revenues jumped to $30 000 as the site's activities expanded into instant messaging, blogging, and chat rooms for member-created groups. Two groups that are widely subscribed to are "Man's Best Friend" and "Widow/Widower" forums.

So what's next? To date, 55-Alive! is financed with the Lantzes' own money and has just one part-time employee. Kelly and Jeff project a need for at least $250 000 of outside funding to expand the site's content and to hire someone to help with sales ads. Despite its early success, 55-Alive! still receives only 100 000 visits per month, just a small fraction of Facebook's 100 million daily users. While Facebook seems to continue to appeal largely to a younger demographic, it has been experiencing significant growth in the 35–54 age category.

Critical Thinking Questions

1. What possible sources of financing are available to 55-Alive!?
2. How important is it that Kelly and Jeff develop a business plan to help secure this money?

High-grade corporate bonds rate low in terms of risk on future returns but also low on size of expected returns. The reverse is true of junk bonds, those with a higher risk of default.

Risk–return differences are recognized by financial planners, who try to gain access to the greatest funding at the lowest possible cost. By gauging investors' perceptions of their riskiness, a firm's managers can estimate how much it must pay to attract funds to their offerings. Over time, a company can reposition itself on the risk continuum by improving its record on dividends, interest payments, and debt repayment.

LO-5 Financial Management for Small Businesses

Most new businesses have inadequate funding. Why are so many start-ups underfunded? Entrepreneurs often underestimate the value of establishing *bank credit* as a source of funds and use *trade credit* ineffectively. In addition, they often fail to consider *venture capital* as a source of funding, and they are notorious for not *planning cash flow needs* properly. Many of them are also not aware of government programs that are available for support. For example, programs like the Canada Small Business Funding Program enable entrepreneurs to receive up to $350 000 worth of loans and up to $500 000 for the purchase of real property. Each year the program provides approximately 10 000 loans for over $1 billion of financing.[6] Of course, companies that do not apply, or are unaware of the program, get $0 even if they are good potential candidates.

Establishing Bank Credit and Trade Credit

Some banks have liberal credit policies and offer financial analysis, cash-flow planning, and knowledgeable advice. Some provide loans to small businesses in bad times and work to keep them going. Obtaining credit, therefore, begins with finding a bank that can—and will—support a small firm's financial needs. Once a *line of credit* is obtained, the small business can seek more liberal credit policies from other businesses. Sometimes suppliers give customers longer credit periods—say, 45 or 60 days rather than 30 days. Liberal trade credit terms with their suppliers lets firms increase short-term funds and avoid additional borrowing from banks.

Start-up firms without proven financial success usually must present a business plan to demonstrate creditworthiness.[7] As we saw in Chapter 4, a business plan is a document that tells potential lenders why the money is needed, the amount needed, how the money will be used to improve the company, and when it will be paid back.

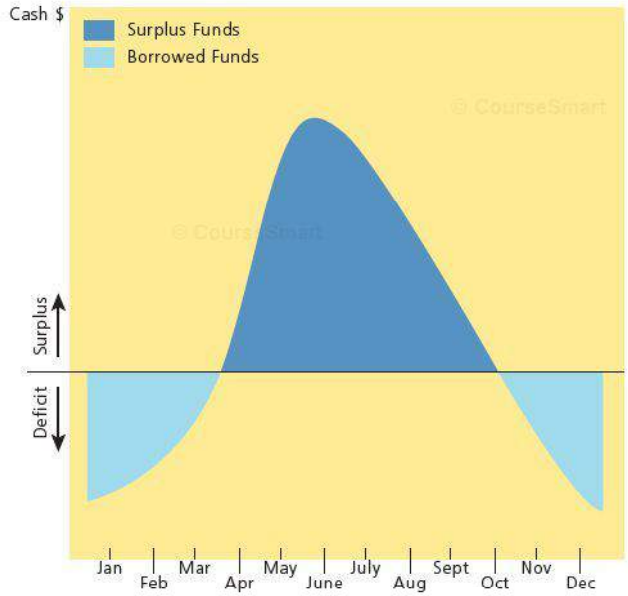
Venture Capital

Many newer businesses—especially those undergoing rapid growth—cannot get the funds they need through borrowing alone. They may, therefore, turn to *venture capital*—outside equity funding provided in return for part ownership of the borrowing firm (see Chapter 4).

Planning for Cash-Flow Requirements

All businesses should plan for their cash flows, but it is especially important for small businesses to do so. Success or failure may hinge on anticipating times when cash will be short and when excess cash is expected. Figure 16.3 shows possible cash inflows, cash outflows, and net cash position (inflows minus outflows), month by month, for Slippery Fish Bait Supply. In this highly seasonal business, bait stores buy heavily from Slippery during the spring and summer months. Revenues outpace expenses, leaving surplus funds that can be invested. During the fall and winter, expenses exceed revenues. Slippery must borrow funds to keep going until sales revenues pick up again in the spring. Comparing predicted cash inflows from sales with outflows for expenses shows the firm's monthly cash-flow position.

Figure 16.3
Cash flow for Slippery Fish Bait Supply Company.



A Quicken Course in Accountability

After deciding to hold himself accountable for designing new products, Scott Cook created some unique methods to ensure he'd meet those design obligations when he founded a company back in 1983. Cook is the former CEO of Intuit, the $3.1 billion company whose well-known software tools—Quicken and Quickbooks—have changed the way we manage our financial lives.

Cook initially envisioned three core principles for product design that eventually led to superb commercial success:

- First: It's the customer that's most important. Listen to the customer and design the product for customer value.
- Second: Be open-minded in identifying all competing ways the customer could perform the task, not just the obvious ways.
- Third: Simplify and improve the product so it provides the easiest way for the customer to complete the task to be performed.

From the beginning, Cook believed these principles would lead to superior, user-friendly preferred products that customers would buy and use. Accordingly, customer acceptance of the products would be the ultimate measure of success or failure of product designs for which Cook was accountable.

Although the firm was selling computer software, Cook didn't restrict his vision to just software competitors. As the second design principle stipulates, Intuit's products had to perform better than any alternative way of doing the task, including competitors' software, hand calculators, and pencil-and-paper methods. Otherwise, users wouldn't prefer Intuit's products for cheque writing and the many other financial tasks they had to perform.

While the initial version of Quicken worked well, Cook's insistence on pleasing customers meant that he wasn't satisfied. Seeking user-based improvements, the first design principle was applied by assigning employees in computer stores to observe consumers when they bought Quicken off the shelf. Cook's imaginative "Follow Me Home" program surprised customers when they were asked if the employee could come home with them to watch their reaction to the software. Everything about the user's experience was noted, beginning with ease or difficulty in opening the package, reading instructions, installing the software on a computer, using it, and even turning away to write with pencil and paper. Cook insisted that anything preventing ease of use, no matter how small, was Intuit's fault, not the customer's. So watching for even the tiniest display of displeasure or frustration, the employee silently observed the user's facial expressions, body language, vocal reactions, pauses, and re-reading of instructions in each stage from opening the shrink-wrapped package to using the product.

Scott Cook, Intuit founder and chairman of the executive committee.

Guided by what was learned from "Follow Me Home," the third principle was invoked for simplifying and improving Quicken. As word spread about the software's success with personal finance on home computers, entrepreneurs started using it—making changes to suit their needs—for financial management tasks in their companies. Once again, by listening to these new customers, Intuit modified the software into a new product—Quickbooks—especially designed for business financial management. Because these companion tools—Quicken and Quickbooks—are the most popular in the industry, the firm's $3.1 billion sales revenues and market leadership are evidence that Cook fulfilled the product-design obligations for which he was accountable.

Critical Thinking Questions

1. Choose two consumer products that you use and come up with specific suggestions for pursuing accountability in the way that Cook did for his company's products. Be specific.
2. Does Cook's view of "accountability" seem extreme? Is there a downside to such aggressive accountability?

By anticipating shortfalls, a financial manager can seek advance funds and minimize their cost. By anticipating excess cash, a manager can plan to put the funds to work in short-term, interest-earning investments. The Managing in Turbulent Times box describes how one entrepreneur was successful by helping other individuals organize their financial matters.

LO-6 Risk Management

Risk—uncertainty about future events—is a factor in every manager's job because nearly every managerial action raises the possibility for either positive or negative outcomes. Risk management is therefore essential.[8] Firms devote considerable resources not only to recognizing potential risks but also to positioning themselves to make the most advantageous decisions regarding risk.

The financial crisis that erupted in 2008 caused many firms to take a second look at their risk-management practices. For example, the Caisse de dépôt et placement du Québec incurred heavy losses in 2008 as a result of its involvement in currency- and stock-related derivatives and the commercial paper crisis.[9] The Bank of Montreal (BMO) also had problems and reported write-downs of $490 million. That was on top of the $850 million charge it incurred as the result of fraud committed by one of its traders. As a result of the losses, BMO did a complete review of its risk-management systems and procedures. Bill Downe, the CEO, admitted that BMO got involved in some business activities that were beyond the company's risk tolerance and strategic plan.[10]

According to a survey of 600 executives conducted by Toronto-based recruitment firm Watson Gardner Brown, the most difficult jobs to staff are in the risk management and compliance areas. Why? Firms are increasing the size of these divisions because of the scandals and the meltdown in some securities in recent years. Institutional investors are demanding more attention to risk oversight before they will trust their funds to such organizations. Finding enough highly qualified people to fill these spots, even with generous salaries, has been a challenge.[11]

Coping with Risk

Businesses constantly face two basic types of risk: **Speculative risks**, such as financial investments, involve the possibility of gain or loss. **Pure risks** involve only the possibility of loss or no loss. For example, designing and distributing a new product is a speculative risk. The product may fail or succeed. The chance of a warehouse fire is a pure risk.

For a company to survive and prosper, it must manage both types of risk in a cost-effective manner. We can thus define the process of **risk management** as "conserving the firm's earning power and assets by reducing the threat of losses due to uncontrollable events."[12]

The risk-management process usually involves five steps.

Step 1: Identify Risks and Potential Losses Managers analyze a firm's risks to identify potential losses. For example, a firm with a fleet of delivery trucks can expect that one of them will eventually be involved in an accident. The accident may cause bodily injury to the driver or others, and may cause physical damage to the truck or other vehicles.

RISK Uncertainty about future events.

SPECULATIVE RISK An event that offers the chance for either a gain or a loss.

PURE RISK An event that offers no possibility of gain; it offers only the chance of a loss.

RISK MANAGEMENT Conserving a firm's (or an individual's) financial power or assets by minimizing the financial effect of accidental losses.

RISK AVOIDANCE Stopping participation in or refusing to participate in ventures that carry any risk.

RISK CONTROL Techniques to prevent, minimize, or reduce losses or the consequences of losses.

Step 2: Measure the Frequency and Severity of Losses and Their Impact To measure the frequency and severity of losses, managers must consider both past history and current activities. How often can the firm expect the loss to occur? What is the likely size of the loss in dollars? For example, our firm with the fleet of delivery trucks may have had two accidents per year in the past. If it adds more trucks to its fleet, it may reasonably expect the number of accidents to increase.

Step 3: Evaluate Alternatives and Choose Techniques That Will Best Handle Losses Having identified and measured potential losses, managers are in a better position to decide how to handle them. They generally have four choices: *risk avoidance*, *control*, *retention*, or *transfer*.

Risk Avoidance A firm opts for **risk avoidance** by declining to enter or by ceasing to participate in a risky activity. For example, the firm with the delivery trucks could avoid any risk of physical damage or bodily injury by closing down its delivery service. Similarly, a pharmaceutical maker may withdraw a new drug for fear of liability lawsuits.

Risk Control When avoidance is not practical or desirable, firms can practise **risk control**—say, the use of loss-prevention techniques to minimize the frequency of

RISK RETENTION
The covering of a firm's unavoidable losses with its own funds.

RISK TRANSFER
The transfer of risk to another individual or firm, often by contract.

losses. A delivery service, for instance, can prevent losses by training its drivers in defensive-driving techniques, mapping out safe routes, and conscientiously maintaining its trucks.

Risk Retention When losses cannot be avoided or controlled, firms must cope with the consequences. When such losses are manageable and predictable, they may decide to cover them out of company funds. The firm is thus said to "assume" or "retain" the financial consequences of the loss: hence the practice known as **risk retention**. For example, the firm with the fleet of trucks may find that each vehicle suffers vandalism totalling $300 per year. Depending on its coverage, the company may find it cheaper to pay for repairs out of pocket rather than to submit claims to its insurance company.

Risk Transfer When the potential for large risks cannot be avoided or controlled, managers often opt for **risk transfer**. They transfer the risk to another firm—namely, an insurance company. In transferring risk to an insurance company, a firm pays a *premium*. In return, the insurance company issues an insurance policy—a formal agreement to pay the policyholder a specified amount in the event of certain losses. In some cases, the insured party must also pay a *deductible*—an agreed-upon amount of the loss that the insured must absorb prior to reimbursement. Thus, the truck company may buy insurance to protect itself against theft, physical damage to trucks, and bodily injury to drivers and others involved in an accident.

Every year in Canada, well over $1 billion is lost to insurance fraud. The insurance industry estimates that between $10 and $15 of every $100 you pay in premiums goes to cover fraud losses. The Canadian Coalition Against Insurance Fraud (CCAIF) exists to curb this fraud. CCAIF members include mutual and private insurance companies, public automobile insurers, and representatives from health care, law enforcement, and consumer advocacy groups. Part of the CCAIF's mandate is to ensure that consumers are aware of the connection between insurance fraud and higher insurance rates. Working with Crime Stoppers, the CCAIF offers a reward to tipsters who provide information leading to the discovery of fraud.

Step 4: Implement the Risk-Management Program The means of implementing risk-management decisions depend on both the technique chosen and the activity being managed. For example, risk avoidance for certain activities can be implemented by purchasing those activities from outside providers, such as hiring delivery services instead of operating delivery vehicles. Risk control might be implemented by training employees and designing new work methods and equipment for on-the-job safety. For situations in which risk retention is preferred, reserve funds can be set aside out of revenues. When risk transfer is needed, implementation means selecting an insurance company and buying the right policies.

Step 5: Monitor Results Because risk management is an ongoing activity, follow-up is always essential. New types of risks emerge with changes in customers, facilities, employees, and products. Insurance regulations change, and new types of insurance become available. Consequently, managers must continually monitor a company's risks, re-evaluate the methods used for handling them, and revise them as necessary.

Summary of Learning Objectives

1. **Describe the responsibilities of a *financial manager.*** A financial manager's overall objective is to increase a firm's value and stockholders' wealth. They must ensure that earnings exceed its costs so that the firm generates a profit. The responsibilities of the financial manager fall into two general *categories:* (1) *cash-flow management,* and (2) *financial control.*
2. **Distinguish between *short-term (operating)* and *long-term (capital)* expenditures.** *Short-term (operating)* expenditures are incurred in a firm's everyday business activities. To handle these expenditures, managers must pay attention to accounts payable, accounts receivable, and inventories. *Long-term (capital)* expenditures are required to purchase fixed assets.
3. **Identify four sources of *short-term financing* for businesses.** The four sources of short-term financing are *trade credit, secured short-term loans, factoring accounts receivable,* and *unsecured short-term loans.*
4. **Distinguish among the various sources of *long-term financing* and explain the risks involved in each.** Firms may seek long-term funds to pay for fixed assets through two channels: (1) *debt financing,* and (2) *equity financing.* All-debt financing is the most speculative, while all-equity is the most conservative. The use of *preferred stock* is a "hybrid" approach; it has features of both corporate bonds and common stocks.
5. **Discuss some key issues in financial management for small businesses.** Obtaining credit begins with finding a bank to support a small firm's financial needs. Once a *line of credit* is obtained, the small business can seek more liberal credit policies from other businesses. Obtaining long-term loans is more difficult for new businesses than for established companies, and start-ups pay higher interest rates than older firms. To demonstrate that it's a good credit risk, a start-up must usually present a *business plan.*
6. **Explain how *risk* affects business operations and identify the five steps in the *risk-management process*.** Businesses face two basic types of *risk*: (1) *speculative risks,* and (2) *pure risks. Risk management* entails conserving earning power and assets by reducing the threat of losses due to uncontrollable events. The process has five steps: Step 1: *Identify risks and potential losses.* Step 2: *Measure the frequency and severity of losses and their impact.* Step 3: *Evaluate alternatives.* Step 4: *Implement the risk-management program.* Step 5: *Monitor results.*

Questions and Exercises

Questions for Analysis

1. In what ways do the two sources of debt financing differ from each other? How do they differ from the two sources of equity financing?
2. Describe the relationship between investment risk and return. In what ways might the risk–return relationship affect a company's financial planning?
3. What is the basic relationship between the amount of risk associated with a project and the likelihood of gains (or losses) on the project? Explain how several financial instruments (GICs, common stocks, preferred stocks, corporate bonds) illustrate this basic relationship.
4. How would you decide on the best mix of debt and equity for a company?
5. Why would a business "factor" its accounts receivable?
6. What are the risks and benefits associated with the sources of short-term funds (trade credit, secured and unsecured loans, and factoring accounts receivable)? How do these risks and benefits compare with those associated with sources of long-term funds (debt and equity)?

Application Exercises

7. Interview the owner of a small local business. Identify the types of short-term and long-term funding that this firm typically uses. Why has the company made these particular financial management decisions?
8. Interview the owner of a small local business. Ask this person to describe the risk-management process that he or she follows. What role, for example, is played by risk transfer? Why has the company made the risk-management decisions that it has?
9. Go to Sedar.com and find the balance sheets of two corporations operating in the same industry. Determine the relative emphasis each company has placed on raising money through debt versus equity. Why might these differences exist?
10. Interview a risk manager of a large firm and ask him or her the following questions: What risks do you think your firm faces? How does your firm manage these risks? How have your policies changed over the years to adjust for new risk levels?

TEAM EXERCISES

Building Your Business Skills

Understanding Risk-Management Issues

Goal

To encourage students to gain a better understanding of the major financial and risk-management issues that face large companies.

Method

During the last few years, all of the following companies reported financial problems relating to risk management:

- Air Canada
- Bombardier
- EarthLink
- BP

Step 1 Working alone, research one of the companies listed above to learn more about the financial risks that were reported in the news.

Step 2 Write a short explanation of the risks and financial-management issues faced by the firm you researched.

Step 3 Join in teams with students who researched other companies and compare your findings.

Follow-Up Questions

1. Were there common themes in the "big stories" in financial management?
2. What have the various companies done to minimize future risks and losses?

Exercising Your Ethics

Doing Your Duty When Payables Come Due

The Situation

Sarah Keats is the vice-president of finance at Multiverse, a large firm that manufactures consumer products. On December 15, 2010 (two weeks before the end of the fiscal year), she attends an executive committee meeting at which Jack Malvo, the CEO, expresses concern that the firm's year-end cash position will be less favourable than projected. The firm has exceeded analysts' performance expectations in each of his eight years at the helm, and Malvo is determined that stockholders will never be disappointed as long as he is CEO. The purpose of the meeting is to find solutions to the cash problem and decide on a course of action.

The Dilemma

To open the meeting, Malvo announces, "We have just two weeks to reduce expenses or increase revenues. We need a $100 million swing to get us where market analysts predicted we'd be on cash flows for the year. Any suggestions?"

In the discussion that ensues, it is noted that Multiverse owes $150 million to about 80 companies that supply component parts and other operating supplies to Multiverse. The money is due before year-end. Sarah Keats says, "Our cash outflows for the year will be lower if we delay paying suppliers, which will help the bottom line. And, it's like getting a free loan." The procurement director, Julie Levin, expresses the following concern: "Our agreements with suppliers call for faithful payments at designated times, and many of the smaller firms depend on receiving that cash to meet their obligations. Also, we've worked hard for two years at improving relationships with all suppliers, and that effort could go down the drain if we don't meet our financial commitments as promised."

As the meeting draws to a close, Malvo announces, "Keep me posted on any unexpected developments, but if nothing helpful comes up in the next few days, let's go ahead and withhold supplier payments for three weeks."

Team Activity

Assemble a group of four students and assign each group member one of the following roles:

- Jack Malvo (CEO of Multiverse)
- Sarah Keats (vice-president of finance)
- Julie Levin (procurement director)
- A stockholder of Multiverse

Action Steps

1. Before discussing the situation with your group, and from the perspective of your assigned role, decide whether there are any ethical issues here.
2. Before discussing the situation with your group, and from the perspective of your assigned role, decide what action you think should be taken. Write down your recommended action.
3. Gather your group together and reveal, in turn, each member's comments and recommendations.
4. Appoint someone to record the main points of agreement and disagreement within the group. How do you explain the results? What accounts for any disagreements?
5. From an ethical standpoint, what does your group recommend?

BUSINESS CASE 16

The Commercial Paper Crisis

Commercial paper is sold to investors on the promise that the issuing organization will pay back the principal (plus interest) in the near future (usually 30 or 60 days). In effect, the issuer might say something like this: If you loan my company $99, in one month my company will give you $100. So, the investor earns $1 of interest in one month on a $99 loan. Both individuals and organizations buy commercial paper because they want to put their extra cash into a liquid (and safe) short-term investment that will earn interest until they need the money.

In recent years, a variation of this basic system was developed. Asset-backed commercial paper (ABCP) is issued by companies (called conduits) that sold subprime mortgages to people with poor credit ratings. They then packaged these mortgages together with other, more traditional loans (on credit cards, automobiles, and regular home mortgages) and sold them as collateralized debt obligations (CDOs) to investors. These products were

Baffinland Iron Mines Corporation was one of many companies to suffer during the ABCP crisis through no fault of its own. It bought $43.8 million of ABCP to earn interest on extra cash but got a big surprise when the issuer was unable to pay on time.

much riskier than traditional commercial paper, but investors typically didn't know that.

In 2007, problems developed in the Canadian commercial paper market as a result of problems in the U.S. subprime mortgage market (where people who wouldn't usually qualify for mortgage money got money to buy a house). People who wanted to buy a home but had a poor credit rating got subprime mortgages with low interest "teaser" rates for the first two years. But those rates then rose to market rates for the remaining years of the mortgage. When people with subprime mortgages started defaulting, because they couldn't afford the higher interest rates, the subprime market collapsed. Foreclosures increased and the returns that normally would have been earned on these mortgages dropped sharply. And since these subprime mortgages were included in commercial paper that was sold to investors, the conduits couldn't pay their investors as they had promised. When word got out about this problem, investors refused to "roll over" their commercial paper (i.e., they wouldn't agree to keep their money in commercial paper for another 30 or 60 days) because they felt that it was too risky. The conduits thus experienced a sharp decline in the money they had available. They then went to their liquidity providers (Canadian banks) to get more money, but the banks argued that since the whole commercial paper market hadn't seized up (just the non-bank part of the market), they weren't obliged to provide the conduits with any money. The result was that many holders of commercial paper did not receive their principal and interest when they thought they would.

Many individuals who bought ABCP were assured by their financial advisers or by the Canadian bond rating firm DBRS that it was AAA-rated and was as safe as guaranteed investment certificates (GICs). DBRS was later criticized for giving such high ratings to such risky investments. Many other investors didn't even know they owned any ABCP until they tried to get some of their money and were told it was "frozen." For example, Angela Speller, a retiree in Victoria, B.C., invested almost $1 million in ABCP and expected to be able to withdraw money as she needed it. But now she fears she will have to wait years to see her money.

Baffinland Iron Mines Corp. is typical of companies that discovered they were not going to get their money when they wanted it. The company mines iron ore deposits on Baffin Island and needs money to buy equipment of all kinds to carry on its regular operations. The company bought $43.8 million of ABCP to earn interest on extra cash that it had. One month later, some of the proceeds of the ABCP (principal plus interest) that were supposed to be paid to Baffinland were not paid because the company Baffinland had bought the ABCP from was unable to pay. This created a major cash shortage at Baffinland that hindered its exploration activities.

Another example is Petrolifera Petroleum Ltd. of Calgary. The company invested about $37 million in ABCP, but when $31 million of the notes came due, they were not paid.

Caisse de dépôt et placement du Québec had the greatest exposure to the ABCP securities market (perhaps as much as $13 billion). Other organizations with some exposure included Nav Canada ($368 million), Ontario Power Generation Inc. ($102 million), and Canada Post ($27 million). Major Canadian banks had exposure too. The Canadian Imperial Bank of Commerce revealed that it lost $1 billion.

One way to solve the problem was to simply convert short-term commercial paper into longer-term debt and then gradually pay off investors. But that solution ignores the very reason that investors buy commercial paper in the first place (i.e., short-term liquidity). A group called the Pan-Canadian Investors Committee was formed for the purpose of resolving the commercial paper mess. In April 2008, the committee announced that noteholders had voted in favour of a plan designed to solve the problem, but in September, the financial crisis hit and that further delayed settlement. Finally, in December, the committee announced a formal agreement to restructure $33 billion of ABCP by exchanging short-term notes for longer-term ones. Purdy Crawford, the chair of the group, said that most individuals and companies would likely get all their money back if they held the restructured notes to maturity. The agreement requires the federal government and the provinces of Quebec, Ontario, and Alberta to provide over $4 billion to ensure that the $32 billion in ABCP is actually restructured.

In 2010, long after the ABCP financial mess, investors were still a bit skeptical about commercial paper. The DBRS did not expect a solid rebound in the market until 2011 at the earliest. Canaccord Financial Inc., which sold ABCP paper to retail clients before this market essentially froze, disposed of its ABCP assets and effectively closed the book. It was trying to forget or at least distance itself from a time when clients were legitimately yelling for their funds.

Questions for Discussion

1. Why do investors buy commercial paper? Why did some investors buy non-bank commercial paper?
2. How does the commercial paper crisis demonstrate the risk–return principle?
3. Explain how problems in the U.S. subprime mortgage market caused difficulties in the Canadian commercial paper market.
4. Should Canada's federal government become more involved in regulation of the commercial paper market so problems like the one described above won't happen again? Defend your answer.

Appendix C
Managing Your Personal Finances

For many people, the goal of financial success isn't *being* wealthy; it's the things that they can *do* with wealth. That's why chapter one in so many financial success stories deals with a hard reality: Like it or not, dealing with personal finances is a life-long job. As a rule, it involves a life-altering choice between two options:

- committing to the rational management of your personal finances—controlling them as a way of life and helping them grow
- letting the financial chips fall where they may and hoping for the best (which seldom happens)

Not surprisingly, option one results in greater personal satisfaction and financial stability. Ignoring your finances, on the other hand, invites frustration, disappointment, and, quite often, acute financial distress.

Taking Your Finances Personally

In Chapter 16, we explored some basic financial-management activities, including the role of financial managers in cash flow management, financial planning and control, and debt and equity financing. We discussed the activities of financial managers—clarifying financial goals, determining short-term and long-term funding needs, and managing risk. Many of the principles of *organizational* finance pertain to *personal* finance as well. Recall, for example, the principle of reducing organizational financial risk by diversifying investments.

In managing your own finances and pursuing your own personal financial goals, you must consider the activities that we'll revisit in the following sections: cash management, financial planning and control, investment alternatives, and risk management. We start by describing a key factor in success: the personal financial plan. Then we'll detail the steps in the planning process and relate them to some core concepts and crucial decisions in personal financial management.

Building Your Financial Plan

Financial planning is the process of looking at your current financial condition, identifying your goals, and anticipating your requirements for meeting those goals. Once you've determined the assets you need to meet your goals, you'll then identify the best sources and uses of those assets for eventually reaching your goals. Because your goals and financial position will change as you enter different life stages, your plan should always make room for revision. Figure C.1 summarizes a step-by-step approach to personal financial planning.

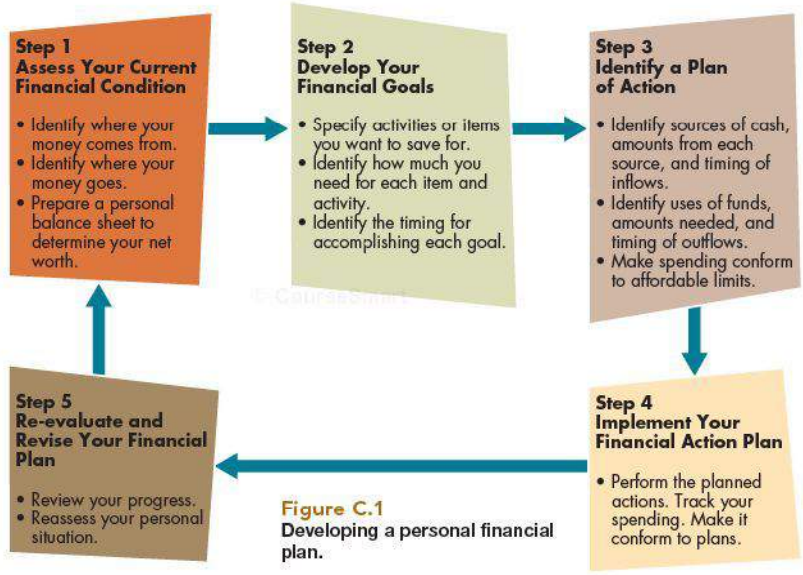


Figure C.1
Developing a personal financial plan.

Knowing Your Net Worth

Begin by assessing your current financial position (Step 1). Your personal net worth is the value of all your assets minus all your liabilities or debts. Bear in mind that personal net worth doesn't refer to the resources that you plan to manage in the future (as in a budget); it's a measure of *your wealth* at the present time. The worksheet in Figure C.2 provides some sample calculations for developing your own personal "balance sheet." Because assets and liabilities change over time, updating your balance sheet not only allows you to monitor changes but also provides more accurate information for realistic budgeting and planning.

Figure C.2
Worksheet for calculating net worth.

Assets: What You Own	Example Numbers	Your Numbers
LIQUID ASSETS:		
1. Cash	$ 300	
2. Savings	+ 3,700	
3. Chequing	+ 1,200	
INVESTMENTS:		
4. RRSP	+ 12,400	
5. Securities	+ 500	
6. Retirement Plan	+ —	
7. Real Estate (other than primary residence)	+ —	
HOUSEHOLD:		
8. Cars (market value)	+ 18,000	
9. House (market value)	+ —	
10. Furniture	+ 3,400	
11. Personal Property	+ 6,600	
12. Other assets	—	
13. Total Assets (add lines 1-12)	**= $46,100**	
Liabilities (Debt): What You Owe		
CURRENT LIABILITIES:		
14. Credit-card balance	$ 1,300	
15. Unpaid bills due	+ 1,800	
16. Alimony and child support	+ —	
LONG-TERM LIABILITIES:		
17. Home mortgage	+ —	
18. Home equity loan	+ —	
19. Car loan	+ 4,100	
20. Student loan	+ 3,600	
21. Other liabilities	+ 2,400	
22. Total Liabilities (add lines 14-21)	**= $13,200**	
Net Worth		
23. Total Assets (line 13)	$46,100	
24. Less: Total Debt (line 22)	– 13,200	
25. Results: Net Worth	**= $32,900**	

Using Your Net Worth to Set and Evaluate Goals

Your personal balance sheet lets you review your *current* overall financial condition. Once you know where you presently stand, you can move on to Step 2 in financial planning: setting specific goals for the future by calculating *changes in net worth*. The worksheet in Figure C.3 allows for goal setting in three time frames: *immediate* (within one year), *intermediate* (within five years), and *long term* (over more than five years). This kind of planning should encourage you to set measurable goals and completion times when calculating your future financial needs. It also lets you set priorities for rationing your resources if, at some point, you don't have the wherewithal to pursue all of your goals.

Because subsequent planning steps—beginning with Step 3 (identifying a plan of action) and including implementation—will affect assets and liabilities, your balance sheet will change over time. That's why it needs periodic updating to reflect your current net worth, to monitor your progress, and to help you start a new planning cycle.

The Time Value of Money

The time value of money is perhaps the single most important concept in personal finance. It's especially relevant for setting financial goals and evaluating investments. The concept of *time value* recognizes the basic fact that, while it's invested, money grows by earning interest or yielding some other form of return. Thus, whenever you make everyday purchases, you're

Name the Goal	Financial Requirement (amount) for This Goal	Time Frame for Accomplishing Goal	Importance (1= highest, 5 = lowest)
Immediate Goals:			
Live in a better apartment			
Establish an emergency cash fund			
Pay off credit-card debt			
Other			
Intermediate Goals:			
Obtain adequate life, disability, liability, property insurance			
Save for wedding			
Save to buy new car			
Establish regular savings program (5% of gross income)			
Save for university/college for self			
Pay off major outstanding debt			
Make major purchase			
Save for home remodeling			
Save for down payment on a home			
Other			
Long-Term Goals:			
Pay off home mortgage			
Save for university/college for children			
Save for vacation home			
Increase personal net worth to $___ in ___ years.			
Achieve retirement nest egg of $ __ in ___ years.			
Accumulate fund for travel in retirement			
Save for long-term care needs			
Other			

Figure C.3
Worksheet for setting financial goals.

giving up interest that you could have earned with the same money if you'd invested it instead. From a financial standpoint, "idle" or uninvested money—money that could be put to work earning more money—is a wasted resource.

Why Money Grows The value of time stems from the principle of compound growth—the compounding of interest paid over given time periods. With each additional time period, interest payments accumulate and earn even more interest, thus multiplying the earning capacity of the investment. Let's say, for example, that you invest $1 today at 10 percent annual interest. As you can see from Table C.1, you'll have $1.10 at the end of one year (your $1 original investment plus $0.10 in interest).

If you reinvest your whole $1.10, you'll earn interest on both your first year's interest and your original investment. During year 2, therefore, your savings will grow to $1.21 (your $1.10 reinvestment plus $0.11 in interest). Obviously, each year's interest will be greater than the previous year's. The interest accumulated over a single time period may seem rather modest, but when you add it up over many periods, the growth can be impressive.

Table C.1 Timetable for Growing $1.00

n	1%	2%	4%	6%	8%	10%
1	1.010	1.020	1.040	1.060	1.080	1.100
2	1.020	1.040	1.082	1.124	1.166	1.210
3	1.030	1.061	1.125	1.191	1.260	1.331
4	1.041	1.082	1.170	1.262	1.360	1.464
5	1.051	1.104	1.217	1.338	1.469	1.611
6	1.062	1.126	1.265	1.419	1.587	1.772
7	1.072	1.149	1.316	1.504	1.714	1.949
8	1.083	1.172	1.369	1.594	1.851	2.144
9	1.094	1.195	1.423	1.689	1.999	2.358
10	1.105	1.219	1.480	1.791	2.159	2.594
15	1.161	1.346	1.801	2.397	3.172	4.177
20	1.220	1.486	2.191	3.207	4.661	6.727
25	1.282	1.641	2.666	4.292	6.848	10.834
30	1.348	1.811	3.243	5.743	10.062	17.449

Note:
n = Number of time periods
% = Various interest rates

After about 7½ years at 10 percent, your original $1 will have doubled. In other words, if you had invested $10 000, you'd have $20 000.

You should understand that this one-time investment of $10 000 would be worth $174 490 ($10 000 × 17.449) at 10 percent annual compound interest after 30 years (e.g., tax free in an RRSP account). If, however, you left it lying in a bank account earning 1 percent, that same $10 000 would be worth only $13 480 ($10 000 × 1.348) after 30 years. How is that possible? Take a close look at the following section, which describes a very important concept: the rule of 72.

The Rule of 72 How long does it take to double an investment? A handy rule of thumb is called the "Rule of 72." You can find the number of years needed to double your money by dividing the annual interest rate (in percent) into 72. If, for example, you reinvest annually at 8 percent, you'll double your money in about nine years:

$$72/8 = 9 \text{ years}$$

The Rule of 72 can also calculate how much interest you must get if you want to double your money in a given number of years. Simply divide 72 by the desired number of years. Thus, if you want to double your money in 10 years, you need to get 7.2 percent in interest:

$$72/10 = 7.2 \text{ percent interest}$$

Finally, the Rule of 72 highlights the downside as well as the upside of the compound- growth principle. The process means greater wealth for savers but increased indebtedness for borrowers. As we have seen, for example, an 8 percent rate doubles the principal every nine years:

$$72/8 = 9 \text{ years}$$

Over a period of 36 years, the amount doubles four times:

$$36/9 = 4 \text{ times}$$

At 4 percent, in contrast, it doubles only twice over 36 years. Table C.2 charts the accumulation of the difference—$16 000 versus $4000—between investments (or loans) made at 8 percent versus 4 percent. The lesson for the personal-finance manager is clear: When investing (or saving), seek higher interest rates because money doubles more frequently; when borrowing, seek lower interest rates because indebtedness grows more slowly. If you are risk averse and do not want to invest in higher risk investments (stocks, mutual funds), at a minimum move your funds from basic savings accounts that pay 1 to 2 percent to government bonds that will average 4 to 6 percent over a 30-year span. Even in this conservative scenario a 6 percent average return for the $10 000 investment would be $57 430 rather than $13 480; that is still a significant improvement. If you understand the power of compound interest and make the correct debt reduction and investment appreciation decisions it will make a huge difference in your financial future. Always remember the Rule of 72!

Making Better Use of Your Time Value Most people want to save for the future, either for things they need

Table C.2 The Power of Doubling

Initial Investment (or Initial Unpaid Debt) = $1000	
Number of Times Doubled	Value after Doubling
1	$2000
2	$4000
3	$8000
4	$16 000

(down payment on a house, university or college tuition, retirement nest egg) or for nonessentials (luxury items and recreation). Needless to say, the sooner you get started, the greater your financial power will be. You will have taken advantage of the time value of money for a longer period of time.

Consider the following illustration. Co-workers Ellen and Barbara are both planning to retire in 25 years. Let's assume that they are planning for a 10 percent annual return on investment (stock markets in North America have averaged about 10 percent over the past 75 years, with higher returns in some years and losses in others). Their savings strategies, however, are different. Whereas Barbara begins saving immediately, Ellen plans to start later but invest larger sums. Barbara will invest $2000 annually for each of the next five years (years 1–5), for a total investment of $10 000. She'll let interest accumulate through year 25. Ellen, meanwhile, wants to live a little larger by spending rather than saving for the next 10 years. Then, for years 11–20, she'll start saving $2000 annually, for a total investment of $20 000. She, too, will allow annual returns to accumulate until year 25, when both she and Barbara retire. Will Ellen have a larger retirement fund in year 25 because she's ultimately contributing twice as much as Barbara?

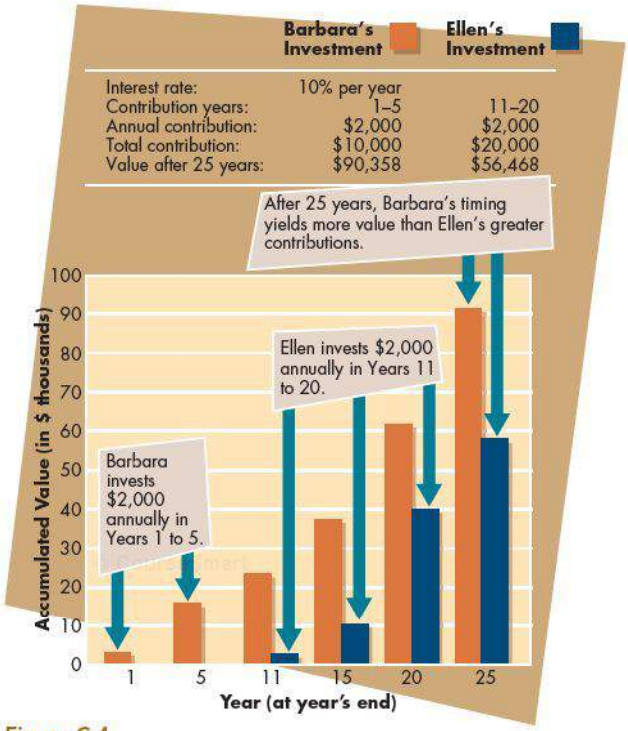


Figure C.4
Compounding money over time.

Not by a long shot. Barbara's retirement wealth will be much larger—$90 358 versus Ellen's $56 468—even though she invested only half as much ($10 000 versus $20 000). We explain the disparity by crunching all the numbers in Figure C.4. As you can see, Barbara's advantage lies in timing—namely, the length of her savings program. Her money is invested longer—over a period of 21 to 25 years—with interest compounding over that range of time. Ellen's earnings are compounded over a shorter period—6 to 15 years. Granted, Ellen may have had more fun in years 1 to 5, but Barbara's retirement prospects look brighter.

Time Value as a Financial-Planning Tool

How much must you set aside today to accumulate enough money for something you want tomorrow? By its very nature, financial planning takes into account not only future needs (retirement, vacations, a wedding, major purchases) but also sources of funds for meeting those needs. Timing, however, is important. The timing of financial transactions will determine whether your plan works or doesn't work the way you intend. Start by considering the time value of money at the outset of your planning cycle. In this respect, various time-based tables for financial calculations are quite useful.[1] As we saw with Table A.1 and the previous example, investment growth is based on interest rates. Let's look at another example to see how we can use this tool for financial planning.

Having recently inherited $50 000, Jason wants to invest for his old age. Specifically, he wants to accumulate a $200 000 nest egg by the time he reaches 55 (30 years from now). He also wants to spend some of the money while he's young enough to enjoy it, but he doesn't know how much he'll have left to spend after he's determined the amount needed to meet his retirement goal.

To help Jason with his planning, we first need to focus on our 30-year investment; thus $n = 30$ in Table C.1. As you can see, the accumulated value of that investment depends on the annual interest rate. At 4 percent, for instance, the growth factor is 3.243. Over 30 years, therefore, $1 invested now will grow to $3.243. Our question, then, is this: If $1 invested now yields $3.243, how many dollars must we invest now to accumulate $200 000 in 30 years? The answer is fairly simple. If $1 provides $3.243

Table C.3 Nest Egg Worksheet

	Investment Returns (annual rate)			Your numbers %
	Conservative 4%	Moderate 6%	Optimistic 8%	
Ending amount after 30 years:	$200 000	$200 000	$200 000	—
Growth factor (from table):	3.243	5.743	10.062	—
Amount* to invest now (end amount/growth factor):	$61 671**	$34 825	$19 877	—
	($200 000/3.243)	($200 000/5.743)	($200 000/10.062)	

*Rounded to nearest whole dollar.
**This amount is greater than the available $50 000.

in 30 years, and if we want to accumulate $200 000, we divide $200 000 by $3.243 to determine that Jason needs to invest $61 671 to reach his retirement goal.

Jason's worksheet, which is shown in Table C.3, reveals trial calculations made with three different interest rates—conservative, moderate, optimistic—available from alternative investments. As you can see, a 4 percent return on investment won't provide the desired $200 000. If he gets only 4 percent, Jason would have to invest $61 671; but, as we know, he has only $50 000. As a matter of fact, if he invested the entire $50 000 at 4 percent, he'd end up with just $162 150 ($50 000 × $3.243 = $162 150), which is well below his $200 000 goal.

Thus, Jason has two choices: find a higher-paying investment or, if he's willing to settle for 4 percent, reduce the amount of his desired nest egg. To make his decision, Jason can use the trial data contained in Table C.3. Projecting an investment at 8 percent, he needs to allocate only about $20 000 to start his nest egg and still have more than $30 000 for other uses. If he considers the 8 percent investment too risky, he may opt for the safer 6 percent return; in that case, he'd still have $15 175 left ($50 000 − $34 825).

Conserving Money by Controlling It

Several steps in the financial planning process call for conserving money by paying attention to where it goes—by keeping spending within affordable limits and understanding what you're spending your money on.[2] As too many people have found out the hard way, a major pitfall in any financial plan is the temptation to spend too much, especially when credit is so easy to get. Consumers often lose track of how much they spend, and, to make matters worse, some don't consider the costly finance charges associated with easy credit. Because many credit-card issuers target university and college students and recent graduates with tempting offers appealing to the desire for financial independence, we'll use the following section to explain the financial costs entailed by credit cards. Keep in mind, however, that the same lessons apply equally to home-equity loans, consumer finance agreements, and other sources of credit.

Credit Cards: Keys to Consumer Satisfaction or Fiscal Handcuffs?

Although some credit cards don't charge annual fees, all of them charge interest on unpaid (outstanding) balances. Because credit-card debt is one of the most expensive sources of funds, you need to understand the costs before you start charging instead of being surprised when you open the bill. For one thing, many card users don't realize how much interest they're paying or how long it will take them to pay off their bills.

Table C.4 reprints a page from Bankrate.com's credit card calculator. Using the table as a guide, let's consider the following situation. Suppose you owe $5000 for credit-card purchases and your card company requires a minimum monthly payment of 5 percent of the unpaid balance. The interest rate is 18 percent APR (annual percentage rate) on the outstanding balance. (By the way, these aren't too high. Some rates are well above 20 percent.)

Thus, Table C.4 reflects an account with $5000 outstanding balance at the end of last month. This is the amount on which your interest of 18 percent APR is charged. Remember, too, that your card company requires a minimum monthly payment (minimum payment due—or MPD) of 5 percent (of the current balance). Let's assume that you pay only the monthly minimum and ask ourselves two questions:

1. How many months will it take to pay off the $5000?
2. How much interest will you have paid when you do pay it off?

Table C.4 Paying Off Credit Card Debt

Balance = $5,000	MPD 3%		MPD 5%		MPD 10%	
APR	Months	Costs	Months	Costs	Months	Costs
6%	144	$5,965.56	92	$5,544.58	50	$5,260.74
9%	158	$6,607.24	96	$5,864.56	51	$5,401.63
12%	175	$7,407.50	102	$6,224.26	53	$5,550.32
18%	226	$9,798.89	115	$7,096.70	55	$5,873.86
21%	266	$11,704.63	123	$7,632.92	57	$6,050.28

Note:
MPD = Minimum Payment Due
APR = Annual Percentage Rate

In Table C.4, the column labelled "MPD 5%" reveals that at 18 percent APR it will take you 115 months to pay off $5000. That's approximately 9½ years! And remember, this number assumes that your balance gradually diminishes to zero because you add no other purchases to the card. Your total payment of $7096.70 covers your $5000 debt plus interest charges. An immediate cash payoff, therefore, would avoid $2096.70 in interest payments.

Why does repayment take so long? In Table C.5, we run through some sample calculations for the first two months in your 115-month repayment process. As you can see, your minimum monthly payment decreases because your ending balance gets smaller with each monthly payment. Your $250 payment in February includes $75 in interest owed on the $5000 balance in the previous month. At 18 percent APR, interest on $5000 would be $900 for a year (0.18 × $5000), but for one month (January), it's only $^1/_{12}$ of that amount—$75. You're paying the rest of your February instalment of $175 ($250 − $75) on the principal amount, thereby reducing the month-end balance to $4825. If we carry out these calculations over 115 months, we find that, when your account is paid in full, you've made "payments on principal" of $5000 and interest payments of $2096.70.

Practise Paying Off Your Debt Using the method illustrated in Table C.5, you should be able to answer the following questions about credit-card repayment (answers appear at the end of the appendix):

1. According to the data in Table C.5, your minimum monthly payment for April would be which of the following? [select one] (a) $232.81; (b) $253.47; (c) $230.56; (d) $226.18.
2. According to the data in Table C.5, for April, the interest owed on your previous balance would be which of the following? [select one] (a) $70.43; (b) $71.94; (c) $69.84; (d) $68.32.
3. According to the data in Table C.5, for April, your ending balance owed on principal would be which of the following? [select one] (a) $4182.16; (b) $4493.16; (c) $4517.22; (d) $4334.97.

Table C.5 Calculating Minimum Monthly Payments

Month	Minimum Monthly Payment (5% of Previous Ending Balance)	=	Interest Owed on Previous Balance* ($^1/_{12}$ × 18%) Previous Balance)	+	Payment on Principal	Ending Balance Owed on Principal
January	—		—		—	$5000
February	$250 [0.05 × $5000]	=	$75 [$^1/_{12}$ × 0.18 × $5000]	+	$175	$4825 [5000 – 175]
March	$241.25 [0.05 × 4825]	=	$72.38 [$^1/_{12}$ × 0.18 × 4825]	+	$168.87	$4656.13 [4825 – 168.87]

*Monthly interest is calculated using $^1/_{12}$ of annual interest rate.

Save Your Money: Lower Interest Rates and Faster Payments

A closer look at Table C.4 confirms two principles for saving money that you can apply when borrowing from any source, not just credit cards: Look for lower interest rates and make faster repayments.

Seeking Lower Interest Rates Because higher interest rates obviously mean more expensive money, you save money with lower interest rates (money that you can use for other things). With a little research, you'll find that potential creditors charge different rates (ranging from below 10 percent to over 20 percent APR). How much can you save? Look again at Table C.4 and compare the cost of borrowing $5000 at 18 percent with the cost of borrowing it at 9 percent. If you assume the same 5 percent minimum monthly payment, how much interest does 9 percent save you over the life of the repayment? The answer is $1232.14 ($864.56 instead of $2096.70). That's a nearly 59 percent savings.

Making Faster Payments Because money has a time value, lenders charge borrowers according to the length of time for which they borrow. In general, longer lending periods increase the cost, while shorter periods are cheaper. Accordingly, borrowers often speed up payments to cut interest costs. Using Table C.4, for example, compare the costs of the "5% MPD" (required monthly payment of 5 percent on the remaining balance) with the faster "10% MPD." The faster schedule cuts the repayment period from 115 to 55 months and, at 18 percent APR, reduces interest costs by $1222.84 (7096.70 − 5873.86).

What if you combined both faster repayment and the lower interest rate (9 percent versus 18 percent)? You'd cut your total interest cost to just $450.30—a savings of $1695.07 over the amount you'd pay if you made slower repayments at the higher rate.

Financial Commitments of Home Ownership

Should you rent or buy the roof you need over your head? The answer to that question involves a variety of considerations, including life stage, family needs, career, financial situation, and preferred lifestyle. If you decide to buy, for example, you have to ask yourself how much house you can afford. To answer that question, you need to ask yourself a number of questions about your personal financial condition and your capacity for borrowing.

To Buy or Not to Buy: That Is the Question

Renting is attractive because you can move in without making an initial investment (or at least making a hefty down payment). That's why it's a popular choice among young adults, especially singles with limited budgets and people whose lifestyles aren't congenial to settling down in a fixed location. Flexibility, mobility, and freedom from obligations of maintenance and upkeep are important advantages. Financially speaking, however, rent payments are cash outflows that provide future financial benefits to owners instead of renters.

By the same token, first-time homebuyers cite the prospect of future financial gain as an attractive reason for buying. The financial inducements are in fact powerful, including home equity, increasing property values, and tax advantages. You can see whether buying is a good idea for you by consulting a "rent-versus-buy calculator" on the web, such as the one at www.ginniemae.gov. By letting you try various interest rates, down payments, loan lengths, and rental costs, calculators specify the financial advantages of renting or buying under a wide range of financial circumstances.

Many younger adults with children report that they choose to buy because they want privacy, space, and the freedom to choose a neighbourhood. Finally, most home buyers say that they get satisfaction from a sense of ownership—from having their own property. Table C.6 summarizes the key considerations in deciding whether to rent or buy a place to live.

In addition to loan payments, the typical demands of ownership—time and other resources for maintaining and improving a home—tend to cut into the money left over for recreation, eating out, taking vacations, and so on. You can reduce the financial pressure by calculating in advance a realistic price range—one that not only lets you buy a house but also lets you live a reasonably pleasant life once you're in it.

How Much House Can You Afford?

Buying a home is the biggest investment most people ever make. Unfortunately, many make the mistake of buying a house that they can't afford, resulting in unnecessary stress and even devastating financial loss. This happened on a massive scale in the U.S. housing downfall of 2007–2009: millions of home buyers had borrowed beyond their means by getting larger loans than they could afford. Borrowers were aided by lenders using loose credit standards, unlike the time-proven standards presented below, leading to unrealistic repayment requirements. Borrowers' incomes were too small to

Table C.6 To Buy or Not to Buy

Renting	Buying
• No down payment to get started	• Must make payments for mortgage, property taxes, and insurance
• Flexibility to leave	• Equity builds up over time
• No obligation for upkeep or improvements	• More privacy
• No groundskeeping	• Value of property may increase
• Easy cash-flow planning (a single monthly payment)	• Financial gains from selling house can be exempt from taxes
• May provide access to recreation and social facilities	• Greater control over use of property and improvements
• Rental conditions may be changed by owner	• The home can become a source of cash by refinancing with another mortgage loan or a home-equity loan
• Timing for repairs controlled by owner	

meet monthly payments, especially when interest rates (and thus payments) increased, and when unemployment increased in the recession. They lost their homes.

Most people need a loan to buy a house or a condominium. A **mortgage loan** is a loan that's secured by the property—the home—being purchased. Because the size of a loan depends on the cost of the property, both borrowers and lenders want to know whether the buyer can afford the house they want. How can you determine how much you can afford? One time-tested (though conservative) rule of thumb cautions the buyer to keep the price below 2½ times his or her annual income. Thus, if your income is $48 000, look for a house priced below $120 000.

MORTGAGE LOAN A loan that is secured by the home that is being purchased.

Any such calculation, however, will give you just a rough estimate of what you can afford. There are other considerations. What you can afford also depends on how much money you have for a down payment and how much you can borrow. Lending institutions use two guidelines for estimating a buyer's borrowing capacity: (1) the borrower's ability to meet the recurring costs of buying and owning, and (2) other long-term debt that the buyer has already incurred.

PITI What are those recurring costs? Every month, the homeowner must pay principal, interest, taxes, and insurance—*PITI,* for short. Because all four costs are greater for more expensive homes, the buyer's monthly obligation depends on how much house he or she has bought. The size of principal and interest payments depends on the mortgage amount, the length of the mortgage loan, and the interest rate. Obviously, if you borrow a fixed amount, the larger your monthly payment, the faster you'll pay off your loan. As Table C.7 shows, monthly payments on conventional loans are lower for longer-term loans and higher for higher interest rates.

Table C.7 Monthly Payment on a $10 000 Loan

	Length of Loan				
Interest Rate (%)	3 Years	5 Years	10 Years	20 Years	30 Years
5.0	$299.71	$188.71	$106.07	$66.00	$53.68
6.0	304.22	193.33	111.02	71.64	59.96
6.5	306.49	195.66	113.55	74.56	63.21
7.0	308.77	198.01	116.11	77.53	66.53
8.0	313.36	202.76	121.33	83.65	73.38
9.0	318.00	207.58	126.68	89.98	80.47
10.0	322.67	212.47	132.16	96.51	87.76
11.0	327.39	217.42	137.76	103.22	95.24
12.0	332.14	222.44	143.48	110.11	102.86

In evaluating loan applications, lenders use PITI calculations to estimate the buyer's financial capacity—his or her ability to meet monthly payments. To determine how much someone is likely to lend you, calculate 28 percent of your gross monthly income (that is, before taxes and other deductions). If your PITI costs don't exceed that figure, you'll probably get the loan. With a monthly gross income of $4000, for example, your PITI costs shouldn't exceed $1120 (28 percent of $4000). Additional calculations show a house price of $162 382 is the most this borrower can afford. Figure C.5 gives a sample calculation, and you should be able to make step-by-step computations by plugging your own numbers into the worksheet.

Other Debt In evaluating financial capacity, lenders also look at any additional outstanding debt, such as loans and credit-card bills. They will generally accept indebtedness (including PITI) up to 36 percent of gross income. Because PITI itself can be up to 28 percent, you might be allowed as little as 8 percent in other long-term debt. With your $4000 monthly gross income, your total debt should be less than $1440 ($1120 for PITI and $320 for other debt). If your total debt exceeds $1440, you may have to settle for a smaller loan than the one you calculated with the PITI method. Websites such as http://mortgages.interest.com provide mortgage calculators for testing interest rates, lengths of loans, and other personal financial information.

Cashing Out from Tax Avoidance (Legally)

Personal expenditures always require cash outflows; some also reduce your tax bill and save you some cash. Registered Retirement Savings Plans (RRSPs), Tax-Free Savings Accounts (TFSAs), and Registered Education Savings Plans (RESPs) have this effect. (Before you

Figure C.5
Worksheet for PITI calculations.

ASSUMPTIONS:

30-year mortgage
Closing costs (fees for property, survey, credit report, title search, title insurance, attorney, interest advance, loan origination) = $5,000
Funds available for closing costs and down payment = $25,000
Interest rate on mortgage = 6½% per year
Estimated real estate taxes = $200 per month
Estimated homeowner's insurance = $20 month

Example Numbers	Your Numbers
1. Monthly income, gross (before taxes or deductions).....$4,000	_____
2. Apply PITI ratio (0.28 x amount on line 1) to determine borrower's payment capacity: 0.28 x $4,000 = ...$1,120	_____
3. Determine mortgage payment (principal and interest) by subtracting taxes and insurance from PITI (line 2).....–$ 220	_____
4. Result: Maximum mortgage payment (principal and interest)..... $900	_____
5. Using Table C.5 find the monthly mortgage payment on a $10,000 loan at 6½% interest for 30 years..... $63.21	_____
6. Since each $10,000 loan requires a $63.21 monthly payment, how many $10,000 loans can the borrower afford with the $900 payment capacity? The answer is determined as follows: $900.00/$63.21 = 14.2382 loans of $10,000 each	_____
7. Result: Maximum allowable mortgage loan [calculated as follows: 14.2382 loans (from line 6 above) x $10,000 per loan] = **.....$142,382**	_____
8. Result: Maximum house price borrower can afford using PITI (amount of house that can be bought with available funds):	
From loan.....$142,382	_____
From down payment.....$ 25,000	_____
Less closing cost.....–$ 5,000	_____
.....$162,382	_____

commit any money to these instruments or activities, check with an expert on tax regulations; they change from time to time.)

Registered Retirement Savings Plans (RRSPs)

The Registered Retirement Savings Plan (RRSP) program was created by the federal government to provide incentive for Canadians to save money. How does it work? Contributors are able to deduct up to 18 percent of their previous year's salary up to a maximum of $22 000 each year. For example, Sally is 30 years old and earns a salary of $85 000. If she contributes $15 000 into an RRSP investment she will be taxed as if she only earned $70 000. In other words, the other $15 000 is shielded from taxes. This brings down her tax payment and enables her to have more money working for her in her name. In addition, this $15 000 (and any subsequent investments) will grow tax-free for the next 30 to 35 years until she retires.[3]

Tax-Free Savings Accounts (TFSAs)

In 2009, the Canadian government created the TFSA program, which enables individuals to contribute up to $5000 per year. This investment vehicle does not provide a tax deduction, like an RRSP, but it allows investment income and capital gains to grow tax-free. Unlike RRSPs, taxes are not applied even when the funds are withdrawn. However, as some people have discovered, the $5000 per year cap must be respected or else taxes will be applied.[4]

Registered Education Savings Plans (RESPs)

The RESP program enables parents to put money aside for a child's post-secondary education many years before the funds will be needed. The contributions can grow tax-free. However, it gets a bit complicated if the child does not pursue post-secondary studies. There is the possibility of transferring to a sibling under a family plan and the account can be open for up to 36 years. The initial contributions are not tax-deductible.

Protecting Your Net Worth

With careful attention, thoughtful saving and spending, and skilful financial planning (and a little luck), you can build up your net worth over time. In addition to steps for accumulating net worth, therefore, every financial plan should consider steps for preserving it. One approach involves the risk–return relationship that we discussed in Chapter 16. Do you prefer to protect your current assets, or are you willing to risk them in return for greater growth? At various life stages, and whenever you reach a designated level of wealth, you should adjust your asset portfolio to conform to your risk and return preferences—conservative, moderate, or aggressive. Another approach is life insurance.

Life Insurance

You can also think of life insurance as a tool for financial preservation. A life insurance policy is a promise to pay beneficiaries after the death of an insured party. In return, of course, insurance companies collect *premiums*—payments from the insurance purchaser—during his or her lifetime.

What Does Life Insurance Do? From a personal-finance perspective, the purpose of life insurance is to replace income upon the death of the policyholder. Accordingly, the amount of insurance you need depends on how many other people rely on your income. Insurance, for example, is crucial for the married parent who is a family's sole source of income. On the other hand, a single person with no financial dependents needs little or no insurance and will probably prefer to put money into higher-paying investments.

How Much Should I Buy? To estimate the amount you need, begin by adding up all of the annual expenses—rent, food, clothing, transportation, schooling, debts to be paid—that you pay for the dependents who would survive you. Then multiply the total by the number of years that you want the insurance to cover your dependents. Typically, this sum will amount to several times your current annual income. Thus, many policyholders, especially during the life stages of highest need—are insured for 10 to 20 times their annual salaries.

Two Basic Types of Insurance *Term insurance* pays a predetermined benefit when death occurs during the stipulated term—say, 10, 20, or 30 years—covered by the policy. If the insured outlives the term, the policy loses its value and simply ceases. When it is in force, however, the insured knows that it will provide funds to beneficiaries if he or she dies. Premiums for term life insurance are significantly lower than premiums for whole life insurance.

Unlike term life, *whole-life insurance*—also known as *cash-value insurance*—remains in force as long as premiums are paid. In addition to paying a death benefit, whole

life accumulates cash value over time—a form of savings. Once the insured reaches a point at which he or she no longer needs the coverage, paid-in money can be withdrawn. Whole-life savings, however, earn less interest than most alternative forms of investment.

Another important distinction should be made here. If you buy term insurance you can invest your savings (extra funds from lower premiums versus whole life) into your own account, in your own name, and build equity. If something were to happen to the policyholder the beneficiaries would get the insurance payment and would also get the personal investment funds. A whole-life–policy holder would be given the face value of the policy but any savings in the policy would cease to exist and would be kept by the insurance company. In essence, those savings funds belong to the insurance company. That is why many policies charge interest if you borrow from your insurance policy account (because it's not really yours).

How Much Does It Cost? The cost of insurance, of course, depends on how much you buy. But it also depends on your life expectancy and other risk factors that insurers determine statistically. Premiums are higher for people whose life expectancies are shorter, whether because of gender, age, weight, occupation, or pre-existing health conditions.

The lower cost of term insurance is an important consideration, not just for people on limited incomes, but also for those seeking higher returns from other types of investment. To get the best match between your policy and your personal situation, therefore, you should evaluate the terms and conditions of a variety of policies. You can get convenient comparisons on websites such as IntelliQuote.com (www.intelliquote.com).

Answers to "Practise Paying Off Your Debt"

1. Item (a) is the correct answer, obtained as follows:
   Minimum monthly payment
   (5% of previous ending balance):
   April $232.81 = (0.05 × $4656.13)
2. Item (c) is the correct answer, obtained as follows:
   Interest owed on previous balance
   ($\frac{1}{12}$ × 0.18 previous balance):
   April $69.84 = ($\frac{1}{12}$ × 0.18 × $4656.13)
3. Item (b) is the correct answer, obtained as follows:

Payment on principal (monthly payment – monthly interest)	*Ending balance owed on principal* (previous balance – (payment on principal)
April $162.97 = ($232.81 – $69.84)	$4493.16 = ($4656.13 – $162.97)

Part 5: Managing Financial Issues

Goal of the Exercise

In this final part of the business plan project, you'll consider how you'll finance your business as well as create an executive summary for your plan.

Exercise Background: Part 5 of the Business Plan

In a previous part of the business plan, you discussed the costs of doing business, as well as how much revenue you expect to earn in one year. It's now time to think about how to finance the business. To get a great idea off the ground requires money. But how will you get these funds?

You'll then conclude this project by creating an *executive summary*. The purpose of the executive summary is to give the reader a quick snapshot into your proposed business. Although this exercise comes at the end of the project, once you're done writing it, you'll end up placing the executive summary at the *beginning* of your completed business plan.

Your Assignment

Step 1

Open the saved Business Plan file you have been working on.

Step 2

For the purposes of this assignment, you will answer the following questions, shown in Part 5: Managing Financial Issues.

1. How much money will you need to get your business started?

   Hint: Refer to Part 3 of the plan, where you analyzed the costs involved in running your business. Approximately how much will you need to get your business started?

2. How will you finance your business? For example, will you seek out a bank loan? Borrow from friends? Sell stocks or bonds initially or as your business grows?

   Hint: Refer to Chapter 15 for information on securities such as stocks and bonds. Refer also to Chapters 4 and 16 for more information on sources of short-term and long-term funds.

3. Now, create an executive summary for your business plan. The executive summary should be brief—no more than two pages—and cover the following points:
   - The name of your business
   - Where your business will be located
   - The mission of your business
   - The product or service you are selling
   - Who your ideal customers are
   - How your product or business will stand out in the crowd
   - Who the owners of the business are and what experience they have
   - An overview of the future prospects for your business and industry

   Hint: At this point, you've already answered all of these questions, so what you need to do here is put the ideas together into a "snapshot" format. The executive summary is really a sales pitch—it's the investor's first impression of your idea. Therefore, as with all parts of the plan, write in a clear and professional way.

Congratulations on completing the business plan project!

Debt Nation

We are a nation in debt, so *Marketplace* examined the finances of three Canadian families. Here are their stories.

Wayne and Theresa

Wayne and Theresa earn about $85 000 a year between them, but they are struggling with a total debt of $343 000 (mortgages, taxes, and loans). Wayne finishes furniture and Theresa works 25 hours a week from home. When Wayne has lots of work, they get by, but when he doesn't, there are problems because they simply buy too many things. Theresa feels very insecure about their financial situation. When unexpected expenses come up, stress levels increase. For example, when Wayne's van broke down, he borrowed money from Household Finance at a high interest rate.

A financial adviser (John) talks to Wayne and Theresa about their debt problems. He observes that their mortgage is not getting smaller as time passes. He says they simply must make higher payments on their mortgage to reduce the amount they owe. He also notes that some of their credit cards carry a 30 percent interest rate. He says they should cut up their credit cards because they have become addicted to credit card debt. John says that Wayne is too easygoing about their debt level, and fears that he won't follow through on plans to reduce the family's debts.

Wayne and Theresa also talk to a psychologist (Sherrell). She says they behave like ostriches, and they need to get their heads out of the sand and analyze their situation. She recommends that the two of them take 30 minutes each week so that Theresa can bring Wayne up to speed about her concerns about their financial situation. They both admit that they haven't cut up their credit cards. They say they just can't give them up.

Joanne and Travis

Joanne and Travis live in a farmhouse in the country. Travis is a musician and Joanne is often unemployed. They are trying to pay off debts of about $186 000 (credit cards, car loans, and mortgages). Joanne is a shopaholic (she likes vintage dresses), and she shops whether she's on a high or feeling low. She says she buys things she doesn't need (like a drill from Canadian Tire that was on sale). Like Wayne and Theresa, unexpected expenses have caused Joanne and Travis additional stress. For example, their septic tank had to be drained, and that cost several hundred dollars that they didn't have.

John, the financial adviser, talks to Joanne and Travis about their problems. He discovers that Travis earns between $15 000 and $25 000 each year. John tells them to pay off their high-interest debt by selling part of their property, but Joanne and Travis like their country acreage.

Sherrell, the psychologist, says that Joanne's obsession with shopping must stop if they hope to get out of their financial hole. Sherrell says that the great lie of the consumer mentality is that "If I shop, I'll feel better, and the feeling will last." She tells Joanne she must take control of her debt. Sherrell tells Joanne to create a "mad money" jar that can be used when Joanne feels the urge to shop. When the jar has no money in it, Joanne is not allowed to shop.

Hannalaura

Hannalaura is a teacher who wants to retire soon but knows she can't afford to. Her total debt is about $187 000. She also wants to take her daughter on a trip to England. She initially got into trouble when a nasty marriage breakup cost her $50 000 (she added that debt to her existing mortgage). She doesn't want her children to have to look after her during her retirement.

John, the financial adviser, visits Hannalaura and tells her she won't likely be able to get out of debt before she retires. He tells her that the trip to England is out of the question, and that she should finish three more university credits she needs for a degree because that will help her earn more money. But Hannalaura is reluctant.

Sherrell, the psychologist, notes that very few people can follow financial advice. She thinks that Hannalaura has a lot of unresolved anger about her past experiences and feels rather helpless about not being able to change things in her life. Sherrell tells her that she must spend less and save more for her retirement. Sherell is afraid that Hannalaura will not change.

Video Resource: "Debt Nation," *Marketplace* (January 15, 2006).

Questions for Discussion

1. Identify several reasons why people get into financial difficulty. Which reason applies to which family? Is there a common underlying reason for these three families?
2. Consider the following statement: *"Credit card companies should cancel the credit card of any consumer whose credit card balance exceeds $10 000. This will prevent the consumer from falling more deeply into debt."* Do you agree or disagree with this statement? Explain your reasoning.
3. Sherrell, the psychologist, says that very few people follow financial advice. Why do you think that people don't follow financial advice?
4. How successful do you think each family will be as they attempt to resolve their financial problems? (After you have turned in your answers, your instructor will give you an update on the three families.)

VIDEO CASE V-2

CBC

Card Tricks

Do you think that you're credit card savvy? Do you know what's in the fine print in cardholders' agreements? Meet four people who got so fed up with hidden fees and rising interest rates on their credit cards that they decided to do something about it.

David Caldarelli was mistakenly charged double for a highway toll. When he sent in his monthly credit card payment, he did not pay for the highway toll overcharge. When he got his next statement, he was shocked to discover that he had been charged $23 dollars in interest (even on the part of the total bill he had already paid). When he inquired about the charge, he was informed that since he had not paid the entire bill, he was charged interest on his total month's charges. He discovered that if you don't pay every penny you owe on your monthly statement, the next month you will be charged interest as if you hadn't paid anything. He was therefore being charged interest on money that he had already paid back. He discovered that this provision was in his cardholder agreement, but these agreements are complex (almost as if they are written by lawyers for lawyers). David complained about this, and was successful in getting the $23 charge cancelled (a one-time goodwill gesture, he was told). David learned to beware of the partial payment.

Paul Cassano got hit with a fee of a different kind. He stayed at a hotel in New York and left an imprint of his card. But when he checked out, he paid in cash and the hotel cancelled the charge on his credit card. When he got his Visa bill a month later, there was a charge for $42.36 that he couldn't figure out. He inquired and discovered that he had been charged an extra fee for using his credit card in the U.S. It is called a currency conversion fee (this fee is on top of the usual currency exchange rate). He sued Visa on the basis that he had been charged an undisclosed 1.65 percent fee when he first charged his hotel room, and then again when he had cancelled that and paid cash. That fee is now disclosed. A similar lawsuit against CIBC cost that bank $19.5 million. After it lost, CIBC upped its conversion fee.

Victor Moge is concerned that interest rates on unpaid credit card balances keep going up, even as interest rates on many other things are going down. His MBNA card rate used to be 15.99 percent, but now it's 19.99 percent. He discovered that credit card companies can raise your rate whenever they want. Some companies have raised the rate by five percentage points in one jump (for example, if the person misses a payment). The prime rate would never go up that fast, but the rate charged on credit cards has nothing to do with the prime rate. The debt that consumers rack up on credit cards is unsecured, so the card providers want to reduce the risk that you will not pay your bill. If you are carrying a high balance, they get worried that you might not pay your bill. They cover that risk by charging higher interest rates (there is a legal ceiling—60 percent).

Sheri Aberback-Ptack pays her American Express monthly credit card bill on time, but when she was charged $11.00 interest for a supposedly late payment, she looked into the situation. She discovered that even if you pay your bill on time, the credit card company may not record the payment until a few days later. If that few days later is after the due date, you are charged interest. She was upset and brought in

her lawyer. He says American Express should have to assume the cost of any processing delay on their part. On another occasion, Sheri paid her bill two days earlier so she wouldn't get charged interest. But she was still charged interest because the payment wasn't actually processed before the due date. She says the customer should not have to guess how many days ahead they have to pay their bill in order to avoid interest charges. So, the payment due date is an illusion. If you don't send the money before the due date (or even if you do), you might get charged a late payment fee. Sheri and her lawyer are preparing a class action suit against the company.

Since none of the credit card companies or banks would talk to *Marketplace*, it went to the director of public affairs for the Canadian Bankers Association. She observed that credit card debt is unsecured, so the rates customers are charged vary quite a bit, depending on how much risk credit card companies think they are exposed to. She also noted that credit card interest rates have nothing to do with the prime rate, and it's up to the card user to determine whether he or she wants to carry a balance or pay the entire bill each month.

How do you avoid losing in the credit card game? One strategy is to talk to your bank about options like a line of credit or a low-interest credit card. If you can't get either of those, you should look around for cheaper alternatives at other banks or other credit card companies.

Video Resource: "Card Tricks," *Marketplace* (February 27, 2005).

Questions for Discussion

1. Credit cards are often referred to as "plastic money." Explain why credit cards do not actually qualify as "money."
2. Think about the situation that was encountered by each of the four individuals profiled above. Do you think the individual or the credit card company had the most defensible position? Explain your reasoning for each case.
3. Consider the following statement: *"If consumers don't pay off their credit card balance each month, that's their decision, and they shouldn't complain about the interest they are charged. They should just stop spending so much money and pay off their bill each month (or just stop using their credit card). Demanding more restrictive legislation on credit card companies is not the answer. Consumers get into debt because they spend more than they can afford."* Do you agree or disagree with the statement. Explain your reasoning.