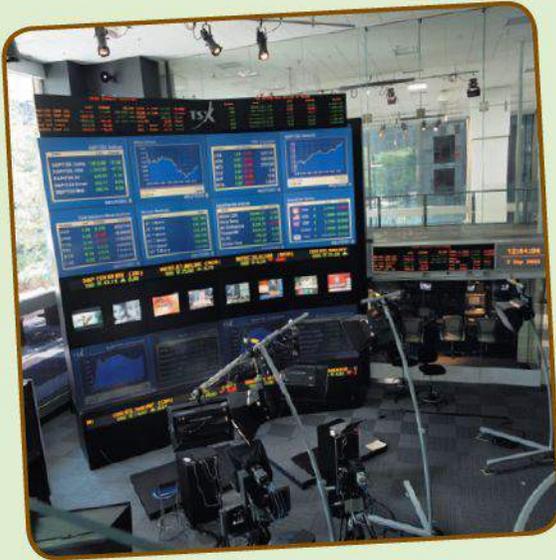


PART

5

Managing Financial Issues



Management of the financial transactions of a business firm is absolutely critical to the firm's survival. Whether it involves raising money to start a new firm, accurately assessing the riskiness of the firm's investments, or monitoring the firm's activities in securities markets, financial management is a key business activity.

Part Summary

Part 5, Managing Financial Issues, provides an overview of the importance of money and banking in the modern business environment, how firms raise and manage money, how they define and manage risk, and how they use Canadian securities markets to meet their financial needs.

- In **Chapter 15, Money, Banking, and Securities Markets**, we explore the nature of money, its creation through the banking system, and the role of the Bank of Canada in the nation's financial system. We also look at the securities markets in which Canadian firms raise long-term funds, how these markets operate, and how they are regulated.
- In **Chapter 16, Financial Decisions and Risk Management**, we look at the reasons businesses need funds and how financial managers raise both long- and short-term funds. We also examine the kinds of risks businesses encounter and the ways in which they deal with these risks.

chapter

15

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Money, Banking, and Securities Markets

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After reading this chapter, you should be able to:

LO-1 Define *money* and identify the different forms it takes in Canada's money supply.

LO-2 Understand the different kinds of *financial institutions* that make up the Canadian financial system and explain the services they offer.

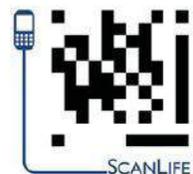
LO-3 Explain the functions of the *Bank of Canada* and describe the tools it uses to control the money supply.

LO-4 Discuss the value of *common stock* and *preferred stock* to stockholders and describe the secondary market for each type of security.

LO-5 Describe the investment opportunities offered by *bonds*, *mutual funds*, and *commodities*.

LO-6 Explain the process by which securities are bought and sold.

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Money, Money, Money

Money has been important in business (and family) transactions for thousands of years. Various objects have served as money, including pig tusks (New Guinea), whale teeth (Fiji Islands), large stones (Islands of Yap in the western Pacific Ocean), cows (Ireland), and cowrie shells (China). Objects that have been used as money typically have one (or more) of the following characteristics: they are rare (e.g., gold or silver), hard to get (e.g., whale teeth), or have some intrinsic beauty that makes them desirable (e.g., feathers from a beautiful bird).

Some items that we would consider odd are still used for money. For example, the teeth of spinner dolphins are used as money in the Solomon Islands of the South Pacific. One dolphin tooth is equal to about two Solomon Islands dollars (a dollar was worth about US\$0.13 in 2010). The governor of the Central Bank of the Solomon Islands says people keep dolphin teeth as a “store of wealth” in much the same way that people in most countries put money in the bank. A pig costs about 50 dolphin teeth, while just a handful of dolphin teeth are needed to buy some yams and cassava. Counterfeiting is an issue in the Solomon Islands just as it is in industrialized societies (counterfeiters try to pass off the teeth of fruit bats as the real thing).

The demand for dolphin teeth as currency is driven by a couple of unique aspects of Solomon Island society. First, tribal disputes that result in the loss of property or human life are often settled by paying compensation, in teeth, rather than in dollars. Second, teeth are the currency of choice when young men choose a bride (a bride costs at least 1000 teeth). Each dolphin yields only about 20 teeth, so many dolphins need to be killed each year to balance supply and demand. Henry Sukufatu is a dolphin hunter who sells about 1000 teeth a month. He says he can’t keep up with demand, which is why the exchange value of teeth is rising.

In most societies today, metal coins and paper money predominate. But have you ever wondered how a country decides what denominations of

How Will This Help Me?

By understanding the material in this chapter, you will benefit in two ways: (1) as a *consumer*, you’ll learn what money is, where it comes from, how the supply of money grows, and the kinds of services that are available to you from the financial services industry; (2) as an *investor*, you’ll be better prepared to evaluate investment opportunities that will improve your personal financial situation.

coins and paper money it should have? One model—called D-metric—uses the average day’s net pay to make suggestions about the denomination structure of a country’s currency. For example, if the average day’s pay in a country is \$100, the D-metric model recommends that the lowest denomination should be the nickel, and that a \$500 bill should be introduced. The model also recommends introducing a \$5 coin when the average day’s net pay reaches \$150. Another model looks at other factors, including cultural preferences, the impact of other methods of paying for things (credit and debit cards), and the average size of exchange transactions. It provides similar recommendations.

A Bank of Canada study back in 2005 suggested that Canada should drop the penny because it is more trouble than it is worth, and it is costing Canadian society about \$130 million each year. New Zealand stopped making the penny in 1987 and Australia in 1990. France, Norway, and Britain have also eliminated low-denomination coins. But in Canada, there is still a lot of demand for pennies. The production of pennies has actually increased in recent years because people are not recirculating them. In 2009 alone, the Royal Canadian Mint produced 948 million pennies. In 2008, a report from the Desjardin Group proposed eliminating the nickel, replacing the \$5 bill with a coin, adding a 20-cent piece, making the 50-cent piece smaller, and introducing a \$200 bill.

The United States is also dealing with the question of denominations for their currency. Many people wonder why the United States is still using a \$1 bill and note that it is out of step with many other industrialized countries. For example, the smallest bill used in the 15 countries in the euro zone is the five-euro note (worth US\$6.18 in 2010). In Britain, the smallest bill is the five-pound note (worth US\$7.27 in 2010), and in Japan, it’s the 1000-yen note (worth about US\$11.28 in 2010). It is estimated that if the United States switched to a \$1 coin like Canada has done, it would save taxpayers there about \$522 million a year in production expenses. Each dollar bill costs about 4 cents to produce, and it has a life span of only about 21 months. In contrast, a coin costs more to produce (about 20 cents), but lasts 30 years or more.

The use of coins and paper money dominate in modern society. But the barter system—exchanging goods and services instead of paying money for them—is still evident. For example, a painter might agree to paint a plumber’s house if the plumber will fix the painter’s leaky pipes. Barter was common in ancient societies, and it is making something of a comeback. In the 1990s, when Russia was trying to move away from a command economy and toward a market-based economy, barter accounted for more than half of the business transactions. When the recession began in 2008, barter exchanges reported a big jump in the number of transactions that were taking place. Barter became more important even in North America because during an economic downturn participants want to conserve cash.

High-tech barter organizations like International Monetary Systems and U-Exchange.com make it possible for people from around the world to get involved in the barter economy. For example, Rich Rowley of Tacoma, Washington, offered to provide new home construction, remodeling, home repairs, home maintenance, and commercial improvements in return for things like tickets to sporting events, vacations, land, medical and dental care, a boat, and a motor home. Participants can build up credits that they can use for future transactions. The trade publication Barternew.com estimates that in the United States, bartering is worth more than \$3 billion annually.

LO-1 What Is Money?

When someone asks you how much money you have, what do you say? Do you count the bills and coins in your pockets? Do you mention the funds in your chequing and savings accounts? What about stocks, or bonds, or your car? Taken together, the value of everything you own is your personal *wealth*. Not all of it, however, is *money*.

The Characteristics of Money

As we saw in the opening case, many different objects have been used as money in different societies. Modern

money usually takes the form of stamped metal or printed paper—Canadian dollars, British pounds—that is issued by governments. The Chinese were using metal money to represent the objects they were exchanging as early as 1100 BCE. Coins probably came into use in China sometime around 600 BCE and paper money around 1200 CE. Just about any object can serve as **money** if it is portable, divisible, durable, and stable. To understand why these qualities are important, imagine using something that lacks these features (e.g., a 35-kilogram salmon).

- **Portability.** If you wanted to use the salmon to buy goods and services, you would have to carry a

35-kilogram fish from shop to shop. Modern currency, in contrast, is lightweight and easy to handle.

- **Divisibility.** Suppose you wanted to buy a hat, a book, and some milk from three different stores using salmon as money. How would you divide the fish? First, out comes a cleaver at each store. Then, you would have to determine whether a kilogram of its head is worth as much as a kilogram from its middle. Modern currency is easily divisible into smaller parts with fixed values for each unit. In Canada, a dollar can be exchanged for 4 quarters, 10 dimes, 20 nickels, 100 pennies, or any combination of these coins.
- **Durability.** Fish seriously fail the durability test. Each day, whether or not you “spend” it, the salmon will be losing value (and gaining scents). Modern currency does not spoil, it does not die, and, if it wears out, it can be replaced with new coins and paper money.
- **Stability.** If salmon were in short supply, you might be able to make quite a deal for yourself. But in the middle of a salmon run, the market would be flooded with fish. Since sellers would have many opportunities to exchange their wares for salmon, they would soon have enough fish and refuse to trade for salmon. While the value of the paper money we use today has fluctuated over the years, it is considerably more stable.

the fisherman would sell his catch, receive money, and exchange it for goods like a new sail. Thus, the barter economy is relatively inefficient. This example demonstrates the three functions of money:

- **Medium of exchange.** Like the fisherman “trading” money for a new sail, we use money as a way of buying and selling things. Without money, we would be stuck in a barter system.
- **Store of value.** Pity the fisherman who catches a fish on Monday and wants to buy a few bars of candy on, say, the following Saturday. By then, the fish would have spoiled and be of no value. In the form of currency, however, money can be used for future purchases and so “stores” value.
- **Unit of account.** Finally, money lets us measure the relative values of goods and services. It acts as a unit of account because all products can be valued and accounted for in terms of money. For example, the concepts of “\$1000 worth of clothes” or “\$500 in labour costs” have universal meaning because everyone deals with money every day.

MONEY Any object generally accepted by people as payment for goods and services.

M-1 Only the most liquid forms of money (currency and demand deposits).

CURRENCY Paper money and coins issued by the government.

The Functions of Money

What if a successful fisherman needs a new sail for his boat? In a *barter economy*—where goods are exchanged directly for one another—he would have to find someone who not only needs fish but who is willing to exchange a sail for it. If no sail maker wants fish, the fisherman must find someone else—say, a shoemaker—who wants fish and will trade for it. Then the fisherman must hope that the sail maker will trade for his new shoes. Contrast this with a money economy, where

The Spendable Money Supply: M-1

For money to serve as a medium of exchange, a store of value, or a unit of account, buyers and sellers must agree on its value. The value of money, in turn, depends in part on its supply (how much money is in circulation). When the money supply is high, the value of money drops. When the money supply is low, the value of money increases.

It is not easy to measure the supply of money, nor is there complete agreement on exactly how it should be measured. The “narrow” definition of the money supply is called **M-1**, which includes only the most liquid forms of money: currency and demand deposits (chequing accounts) in banks. As of April 2010, M-1 totalled \$539.4 billion in Canada.¹

Currency is paper money and coins issued by the Canadian government. It is widely used to pay small bills. Canadian currency—which clearly states “This note is legal tender”—is money the law requires a creditor to accept in payment of a debt. Counterfeiting of paper currency is now a worldwide problem, partly because new technologies like scanners and colour copiers allow counterfeiters to make real-looking bills rather easily. In 2009, there were over 1.48 billion Bank of Canada notes in circulation; over 67 000 counterfeit bills were detected.² A survey conducted by SES Canada Research Inc. found



This 100-kilogram gold coin—produced by the Royal Canadian Mint—is the largest gold coin ever produced. It is 99.99 percent pure gold and sells for \$3 million.

CHEQUE An order instructing the bank to pay a given sum to a specified person or firm.

DEMAND DEPOSITS

Money in chequing accounts; counted as M-1 because such funds may be withdrawn at any time without notice.

M-2 Everything in M-1 plus savings deposits, time deposits, and money market mutual funds.

TIME DEPOSIT

A deposit that requires prior notice to make a withdrawal; cannot be transferred to others by cheque.

MONEY MARKET MUTUAL FUNDS

Funds operated by investment companies that bring together pools of assets from many investors to buy short-term, low-risk financial securities.

that 18 percent of Canadians have received a counterfeit bill, and 39 percent felt that it was likely that they would receive a counterfeit bill at some point.³

In an attempt to reduce counterfeiting, the Bank of Canada has issued new \$20 and \$5 bills with more sophisticated security features.⁴

A **cheque** is an order instructing the bank to pay a given sum to a specified person or firm. Cheques enable buyers to make large purchases without having to carry large amounts of cash. Money in chequing accounts, known as **demand deposits**, is counted in M-1 because such funds may be withdrawn at any time without notice.

M-1 Plus the Convertible Money Supply: M-2

M-2 includes everything in M-1 plus items that cannot be spent directly but that are easily converted to spendable forms: *time deposits, money market mutual*

funds, and savings deposits. M-2 accounts for nearly all the nation's money supply. As this overall supply of money increases, more is available for consumer purchases and business investment. When this supply decreases, less is available for consumer purchases and business investment. As of April 2010, M-2 totalled \$967.5 billion in Canada.⁵

Unlike demand deposits, **time deposits** require prior notice of withdrawal and cannot be transferred by cheque. The supply of money in time deposits (e.g., *certificates of deposit [CDs]*) grew rapidly in the 1970s and 1980s as interest rates rose to 15 percent. But when interest rates dropped in the late 1990s, consumers began putting more of their money into mutual funds.

Money market mutual funds are operated by investment companies that bring together pools of assets from many investors. The fund buys a collection of short-term, low-risk financial securities. Ownership of and profits (or losses) from the sale of these securities are shared among the fund's investors. These funds attracted many investors in the 1980s and 1990s because of high payoffs. But the sharp decline in the stock market in 2001–2002 and again in 2008, and more importantly the environment of low interest rates, meant reduced consumer interest in money market mutual funds.

Credit Cards: Plastic Money?

Although not included in M-1 or M-2, credit—especially credit cards—has become a major factor in the purchase of consumer goods in Canada. The use of MasterCard, Visa, American Express, and credit cards issued by individual businesses has become so widespread that many people refer to credit cards as “plastic money.” In 2008, Canadians spent \$267 billion using credit cards.⁶ Credit cards are actually a *money substitute*; they serve as a temporary medium of exchange but are not a store of value. With the recent financial crisis as an incentive, the Canadian government is planning to adopt a new code of conduct to further regulate credit and debit cards.⁷

In 2009, Canadians held 72 million credit cards.⁸ Visa is the world's biggest credit card company with 56.7 billion transactions registered in 2009, more than MasterCard and American Express combined.⁹ Worldwide, the total value of goods purchased with Visa cards is above \$3 trillion annually.¹⁰

Credit cards are big business for two reasons. First, they are quite convenient for consumers. Second, credit cards are extremely profitable for issuing companies because of fees they collect. Some cards charge annual fees to holders, and all of them charge interest on unpaid balances. Depending on the issuer, cardholders pay interest rates ranging from 11 to 20 percent. Merchants who accept credit cards also pay fees to card issuers.

Banks like the Bank of Montreal, the Canadian Imperial Bank of Commerce, the Bank of Nova Scotia, and TD Canada Trust are the biggest issuers of Visa cards in Canada. Each time a card is used, the banks receive an “interchange” fee, which is a percentage of the purchase value of the transaction. The banks use these fees to offset costs they incur with loyalty and points programs. There is an ongoing battle for market share among Canada's major banks as they issue credit cards, so banks are continually offering more perks. However, as the perks improve for consumers, banks pass on their costs to retailers in the form of higher interchange fees. For example, the fees paid by the owner of the Bloor Street Diner in Toronto on Visa transactions increased from 1.51 percent to 1.86 percent, including interchange fees (the annual payout of credit card fees is about \$120 000). The owner feels that he simply has to take Visa credit cards or he will lose business.¹¹ Credit card companies collected \$4.5 billion in fees in 2008.¹²

Credit card fraud is an increasing concern for both consumers and retailers. The Interac Association estimated that credit and debit card fraud cost financial institutions over \$100 million in 2007.¹³ Sometimes criminals pay retail workers to steal information from customers' credit cards. Then that information is used to purchase thousands of dollars' worth of goods over the internet or through mail-order



The hub of operations at Amazon.com is this 840 000 square-foot warehouse, where workers can ship as many as 11 000 boxes an hour. The key to the efficiency of the facility is technology—all orders are processed electronically. The most important technology of all may be the credit card. If you had nothing but cash, you'd find it hard to shop on the internet, and internet retailers who depend on credit card transactions (like Amazon, Dell, and eBay) couldn't exist in a cash-only world.

houses. By the time the credit card holder gets his or her next bill, the thieves are long gone. Another approach is to use a card reader. When a credit card is swiped through the reader, key information about the cardholder is produced. Then a counterfeit card is made and used.¹⁴

To deal with these problems, credit card companies have developed a new encryption technology. In 2008, holders of CIBC Visa, Royal Bank Visa, and BMO MasterCard began receiving new high-tech, crime-detering credit cards with a computer chip embedded in them. Two million of the new cards were sent to customers, and millions more will be sent out in the next couple of years. Royal Bank said its customers will receive the new chip cards when their old ones expire. With the new system, consumers won't swipe their cards as they used to. Rather, they will insert the credit card in a reader, then punch in a personal identification number (PIN) just as they do with their debit card. Once it is approved, they will remove the card from the reader. There is no signature required. A pilot project in Kitchener-Waterloo, Ontario, involved the use of more than 170 000 chip cards and 3500 reading devices at various retailers. There was an 80 percent decrease in fraudulent activity in areas where the new cards were being used.¹⁵ More detail about credit cards is provided in Appendix C.

institutions to provide a broad spectrum of services to both individuals and businesses. In this section, we describe the major types of financial institutions, explain how they work, and describe some of the special services they offer. We also explain their role as creators of money and discuss the regulation of the Canadian banking system.

CHARTERED BANK

A privately owned, profit-seeking firm that serves individuals, non-business organizations, and businesses as a financial intermediary.

Financial Institutions

There are several types of financial institutions in Canada, but the main function of all of them is to facilitate the flow of money from sectors with surpluses to those with deficits by attracting funds into chequing and savings accounts. Incoming funds are loaned to individuals and businesses and perhaps invested in government securities.

For many years, the financial community in Canada was divided rather clearly into four distinct legal areas. These “four financial pillars” are (1) chartered banks, (2) alternate banks (i.e., trust companies and credit unions/*caisses populaires*), (3) life insurance companies and other specialized lending and saving intermediaries (i.e., factors, finance companies, venture capital firms, mutual funds, and pension funds), and (4) investment dealers. We will discuss each of these financial institutions in detail later in this chapter, but it is important to understand that many changes have taken place in the financial services industry in the last couple of decades; the differences across the four divisions has been blurred.

Changes Affecting Financial Institutions

The crumbling of the four financial pillars began in 1980 when changes were made to the Bank Act. In the years since then, many other changes have been made. For example, banks are now permitted to own securities dealers, to establish subsidiaries to sell mutual funds, and to sell commercial paper (see Chapter 16). Trust companies have declined in importance, and many trust companies have been bought by banks or insurance companies. The largest trust company—Canada Trust—merged with the Toronto-Dominion Bank and is now called TD Canada Trust.

Financial Pillar #1— Chartered Banks

A **chartered bank** is a privately owned, profit-seeking financial intermediary that serves individuals, businesses, and non-business organizations. Chartered banks are

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LO-2 The Canadian Financial System

Many forms of money, especially demand deposits and time deposits, depend on the existence of financial

TRUST SERVICES

The management of funds left in the bank's trust.

LETTER OF CREDIT

A promise by a bank to pay money to a business firm if certain conditions are met.

BANKER'S ACCEPTANCE

A promise that a bank will pay a specified amount of money at a future date.

ELECTRONIC FUNDS TRANSFER (EFT)

A combination of computer and communications technology that transfers funds or information into, from, within, and among financial institutions.

AUTOMATED BANKING MACHINES (ABMS)

Electronic machine that allows bank customers to conduct account-related activities 24 hours a day, 7 days a week.

the largest and most important financial institution in Canada. In March 2010, Canadian chartered banks had assets totaling \$1.98 trillion.¹⁶ Chartered banks offer chequing and savings accounts, make loans, and provide many services to their customers. They are the main source of short-term loans for business firms.

Unlike the United States, where there are hundreds of banks, each with a few branches, in Canada there are only a few banks, each with hundreds of branches. The five largest Canadian banks account for about 90 percent of total bank assets. *Schedule I* banks are those that are Canadian-owned and have no more than 10 percent of voting shares controlled by a single interest. *Schedule II* banks are those that may be domestically owned but do not meet the 10 percent limit, or may be foreign-controlled. Several foreign banks have set up

Schedule II subsidiaries in Canada. The Act limits foreign-controlled banks to deposits that do not exceed 8 percent of the total domestic assets of all banks in Canada.

Services Offered by Banks

The banking business is highly competitive; therefore, banks no longer just accept deposits and make loans. Most banks now offer pension services, trust services, international services, financial advice, and electronic money transfer.

Pension Services Most banks help customers establish savings plans for retirement. Banks serve as financial intermediaries by receiving funds and investing them as directed by customers. They also provide customers with information on investment possibilities.

Trust Services Many banks offer trust services—the management of funds left “in the bank’s trust.” In return for a fee, the trust department will perform such tasks as making your monthly bill payments and managing your investment portfolio. Trust departments also manage the estates of deceased persons.

International Services The three main international services offered by banks are *currency exchange*, *letters of credit*, and *banker’s acceptances*. Suppose that a Canadian company wants to buy a product from a French supplier. For a fee, it can use one or more of three services offered by its bank:

- 1 It can exchange Canadian dollars for euros at a Canadian bank and then pay the French supplier in euros.
- 2 It can pay its bank to issue a **letter of credit**—a promise by the bank to pay the French firm a certain amount if specified conditions are met.
- 3 It can pay its bank to draw up a **banker’s acceptance**, which promises that the bank will pay some specified amount at a future date.

Financial Advice Many banks, both large and small, help their customers manage their money. Depending on the customer’s situation, the bank may recommend different investment opportunities. The recommended mix might include guaranteed investment certificates, mutual funds, stocks, and bonds. Today, bank advertisements often stress the role of banks as financial advisers.

Electronic Funds Transfer Electronic funds transfer (EFT) combines computer and communication technology to transfer funds or information into, from, within, and among financial institutions. In addition to internet banking, examples include *automated banking machines*, *pay-by-phone*, *direct deposits and withdrawals*, *point-of-sale transfers*, and *smart cards*.

Automated Banking Machines (ABMs) ABMs (also called automated teller machines—ATMs) let you bank at almost any time of day or night. There are over 17 000 ABM machines in Canada and many of them are located inside the more than 6000 Canadian bank branches. However, there are plenty of independent “white label” machines that usually charge higher fees. In 2010, First-Ontario Credit Union launched a new version it called the Personal Assistant Teller (PAT). This system provides a video link with a teller who can talk to the consumer about loans or listen to complaints in addition to offering the traditional ABM transactions.¹⁷

Pay-by-Phone These systems let you telephone your financial institution and pay certain bills or transfer funds between accounts.

Direct Deposits and Withdrawals This system allows you to authorize in advance specific, regular deposits and withdrawals. You can arrange to have pay-cheques and social assistance cheques automatically deposited and recurring expenses, such as insurance premiums and utility bills, automatically paid.

Point-of-Sale Transfers These let you pay for retail purchases with your **debit card**, a type of plastic money that immediately reduces the balance in the user's bank account when used. There are more than four billion debit card transactions each year. There were more than 21 million active debit cards in Canada in 2009 and approximately 1 percent of these cards were affected by fraud.¹⁸ Debit cards are convenient but should be used with basic caution.

Smart Cards Smart cards (e.g., phone cards)—also known as “electronic purses” or “stored-value cards”—can be programmed with “electronic money” at ATM machines or with special telephone hookups. After using your card to purchase an item, you can then check an electronic display to see how much money is left. European and Asian consumers are the most avid users. In North America, smart cards are most popular in gas pump payments, followed by prepaid phone service, ATMs, self-operated checkouts, and automated banking services.¹⁹ Analysts predict that in the near future smart cards will function as much more than electronic purses.

E-Cash Electronic money, known as **e-cash**, is the money that moves along multiple channels of consumers and businesses via digital electronic transmissions. The money flows from the buyer to the seller's e-cash funds, which are instantaneously updated and stored on a microchip. Although e-cash transactions are cheaper than handling cheques, there are potential problems in the form of hackers and system crashes.

Figure 15.1 summarizes the services that chartered banks offer. Banks are chartered by the federal government and are closely regulated when they provide these services.

Bank Loans

Banks are the major source of short-term loans for business. Although banks make long-term loans to some firms, they prefer to specialize in providing short-term

funds to finance inventories and accounts receivable. A **secured loan** is backed by collateral (e.g., accounts receivable). If the borrower cannot repay the loan, the bank sells the collateral. An **unsecured loan** is backed only by the borrower's promise to repay it. Only the most credit-worthy borrowers can get unsecured loans.

Borrowers pay interest on their loans. Large firms with excellent credit records pay the **prime rate of interest**, which is the lowest rate charged to borrowers. This rate changes often because of changes in the demand and supply of loanable funds, as well as Bank of Canada policies. The so-called “Big Six” Canadian banks (Royal Bank, CIBC, Bank of Montreal, Bank of Nova Scotia, TD Canada Trust, and National Bank of Canada) typically act in concert with respect to the prime rate.

DEBIT CARD A type of plastic money that immediately on use reduces the balance in the user's bank account and transfers it to the store's account.

SMART CARDS A credit card-sized computer that can be programmed with “electronic money.”

E-CASH Money that moves among consumers and businesses via digital electronic transmissions.

PRIME RATE OF INTEREST The lowest rate charged to borrowers.

RESERVE REQUIREMENT The requirement (until 1991) that banks keep a portion of their chequable deposits in vault cash or as deposits with the Bank of Canada.

Banks as Creators of Money

Financial institutions provide a special service to the economy—they create money. They don't mint bills and coins, but by taking in deposits and making loans, they *expand the money supply*. We will first look at how this expansion process works, assuming that banks have a **reserve requirement**, that they must keep a portion of their chequable deposits in vault cash or as deposits with the Bank of Canada. (The reserve requirement was dropped in 1991 and the implications of this change are described later.)

Figure 15.1
Examples of services offered by many chartered banks and trust companies.



مصرف الشامل
Shamil Bank



Shamil ATM مصرف الشامل



Devout Muslims can't pay or receive interest, a fact that complicates banking operations. Because money has to work to earn a return, institutions like the Shamil Bank in Bahrain invest deposits directly in such ventures as real estate and then pay back profit shares rather than interest. Buying a car is possible through a complex arrangement in which the bank takes temporary ownership and then sells the car to the individual at a profit. Mortgage arrangements are similar but even more complicated.

But what happens if there is no reserve requirement? At the extreme, it means that banks could (theoretically) create infinite amounts of money because they wouldn't have to keep any in reserve. But banks will not do this because it is risky. So, in practice, the dropping of the reserve requirement simply means that banks will be able to create more money than they did when there was a reserve requirement.

Other Changes in Banking

Substantial changes in addition to those already described are taking place in banking, including *deregulation*, *changes in customer demands*, and *changes in international banking*.

Deregulation Deregulation has allowed banks to alter their historical role as intermediaries between depositors and borrowers. Canada's banks are diversifying

to provide more financial products to their clients. Training bankers to be effective in this environment is necessary. For example, over 100 executives at TD Canada Trust attended a Harvard University course that taught them to think like investment bankers. The Bank of Montreal conducted a similar course for over 400 executives. Deregulation has been a change for Canadian banks and in an interesting twist, the "Big Six" banks actually asked the government to get tougher with mortgage rules to cool off the housing market in early 2010 by raising the minimum down payment from 5 percent to 10 percent and reducing amortization maximum periods from 35 to 30 years.²⁰

Changes in Consumer Demands Consumers are no longer content to keep money in a bank when they can get more elsewhere. They are turning to electronic banks like ING Direct and President's Choice Financial (a Loblaw subsidiary) that pay higher interest on savings accounts. Such companies can pay higher rates because they don't incur the costs associated with having branches like traditional banks do.

Traditional banks are responding to this new competition by selling a growing array of services in their branches. For example,

Suppose you saved \$100, took it to a bank, and opened a chequing account. Let's assume for the moment that there is a reserve requirement, and that it is 10 percent. Your bank must therefore keep \$10 of your \$100 deposit in reserve, so it has only \$90 to lend to other borrowers. Now suppose a person named Jennifer Leclerc borrows \$90 from your bank. She now has \$90 added to her chequing account. Assume that she writes a cheque for \$90 payable to Canadian Tire. Canadian Tire's bank ends up with a \$90 deposit, and that bank is also required to keep \$9 in reserve. It therefore has \$81 to lend out to someone else. This process of deposit expansion can continue as shown in Figure 15.2, and your original deposit of \$100 could result in an increase of \$1000 in new deposits for all banks in the system.

Figure 15.2
How the chartered banking system creates money.

Deposit	Money Held in Reserve by Bank	Money to Lend	Total Supply
\$100.00	\$10.00	\$90.00	\$190.00
90.00	9.00	81.00	271.00
81.00	8.10	72.90	343.90
72.90	7.29	65.61	409.51
65.61	6.56	59.05	468.56

the Bank of Montreal started providing bereavement services. If a customer's mother dies, BMO offers a service that takes care of everything from the funeral planning to redirecting the deceased person's mail.²¹ Banks are finding new ways to attract and serve their clientele in order

to remain competitive and attract a new generation that does not have the same loyalties as previous generations. Read the E-Business and Social Media Solutions boxed insert entitled "Online and Mobile Banking Solutions Straight to the Consumer."

E-BUSINESS AND SOCIAL MEDIA SOLUTIONS

Online and Mobile Banking Solutions Straight to the Consumer

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In the past decade, the banking industry has embraced technology. Why? Each time Apple launches a device, or a new generation of an old device (e.g., iPhone or iPad), people line up. Overnight campouts were once reserved for major music concerts. But such images demonstrate a simple fact: consumers have a growing connection with technology. Here are some key statistics to back this up. In 2010:

- 70 percent of Canadians were using mobile devices
- 17 percent of Canadians were already using smart phones (with a 22 percent increase projected by year-end)
- 78 percent of Canadians were using online banking services

Only 10 percent of Canadian consumers were using mobile banking services in 2010, but that number is expected to grow quickly. Many experts predict that mobile banking will eventually surpass online banking. So how can banks take advantage of such trends?

In the U.S., some banks are enabling clients to email a photo of a cheque from their mobile devices, to

be deposited, without an actual visit. Banks in Canada were not standing still. CIBC was the first Canadian bank to launch a mobile banking application for the iPhone platform. A few years back, RBC designed a peer-to-peer website for students, with a slogan to match: "Not your parents' banking site." RBC was also one of the first Canadian banks to create a Facebook group, called RBC Campus Connections. TD Canada Trust created an equivalent group called the Money Lounge, where students can win trips or discuss the merits of making their first RRSP investment. These relationships help students learn in a non-threatening manner. This sort of contact is important. According to an Ipsos Reid poll, 44 percent of Canadians have an account at the bank where they opened their first account. Opportunities to mine data are also a significant part of building such relationships.

The discount brokerage divisions are also trying to exploit opportunities. For example, BMO InvestorLine offers video demonstrations for clients. RBC Dominion Securities has created practice accounts where prospective investors can manage an imaginary \$100 000 portfolio. Banks are also offering online seminars and webinars, as well as online tutorials. A simulation video game called Financial Football was released in New York to help students learn how to balance their checkbooks; the game uses the graphics and rules of professional football. It was sponsored by Visa but it is yet another possible tool for banks to engage consumers, drive traffic to their sites, and build brand loyalty. One thing is clear: banks are now fighting a whole new battle for your financial loyalty.



Critical Thinking Question

1. Have you used a banking smart phone application or visited a bank-sponsored social media group? How effective do you think these tools are for the consumer? For the banks?

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BANK OF CANADA

Canada's central bank; formed in 1935.

BANK RATE (REDIS-COUNT RATE)

The rate at which chartered banks can borrow from the Bank of Canada.

Banks also want to get much more involved in selling insurance, but as of 2010, the Bank Act prohibited banks from selling insurance *in their branch offices* (they are allowed to sell insurance at other locations). Canadian banks are being "creative" in keeping insurance and banking activities separate (but

not too separate). In Oakville, Ontario, Royal Bank of Canada consumers who enter the branch will notice the RBC bank on the right and RBC Insurance on the left. The two operations are separated by only a glass wall. Dan Danyluk, the CEO of the Insurance Brokers Association of Canada, says that RBC's strategy is ignoring the intent of the law. He argues that credit-granting institutions like banks should not be allowed to sell insurance in their branches because they may try to tie the buying of, say, car insurance to the approval of the loan to buy the car.²² The government agrees and in 2010 it sent a message by banning banks from selling unauthorized insurance on their websites.²³

All of this activity is transforming the profit base of banks. In the past, they made most of their money from the spread between interest rates paid to depositors and the rates charged on loans. Investment banking, on the other hand, is fee-based. Banks are making a larger proportion of their profits from fees, and this is blurring the traditional boundary between banks and securities firms.

Changes in International Banking Canada's banks are going to experience increased competition because foreign banks are now allowed to do business in Canada. Canadian banks are responding to this threat with a variety of tactics, including attempts to merge with one

another. But bank mergers have been blocked by the federal government because it feared the mergers would reduce competition and harm consumers. Despite the setback, banks are cooperating to spread their fixed costs. For example, Syncor Services is a joint venture between three of the "Big Six" banks that provides cheque-clearing services across Canada.²⁴

LO-3 The Bank of Canada

The **Bank of Canada**, formed in 1935, is Canada's central bank. It has a crucial role in managing the Canadian economy and in regulating certain aspects of chartered bank operations. The Bank of Canada is managed by a board of governors composed of a governor, a deputy governor, and 12 directors appointed from different regions.

The rate at which chartered banks can borrow from the Bank of Canada is called the **bank rate**, or **rediscount rate**. It serves as the basis for establishing the chartered banks' prime interest rates. In practice, chartered banks seldom have to borrow from the Bank of Canada. However, the bank rate is an important instrument of monetary policy as a determinant of interest rates.

The Money Supply and the Bank of Canada

The Bank of Canada plays an important role in managing the money supply in Canada (see Figure 15.3). If the Bank of Canada wants to *increase* the money supply, it can buy government securities. The people who sell these bonds then deposit the proceeds in their banks. These deposits increase banks' reserves and their willingness to make loans. The Bank of Canada can also lower the bank rate; this action will cause increased demand for loans from businesses and households because these customers borrow more money when interest rates drop.

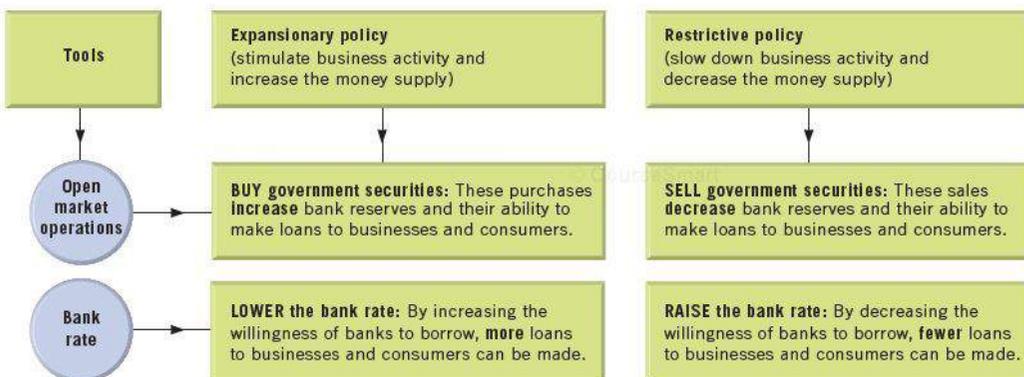


Figure 15.3
Bank of Canada monetary policy actions.

If the Bank of Canada wants to *decrease* the money supply, it can sell government securities. People spend money to buy bonds, and these withdrawals bring down banks' reserves and reduce their willingness to make loans. The Bank of Canada can also raise the bank rate; this action will cause decreased demand for loans from businesses and households because these customers borrow less money when interest rates rise.

Financial Pillar #2— Alternate Banks

Trust Companies

A **trust company** safeguards property—funds and estates—entrusted to it. It may also serve as trustee, transfer agent, and registrar for corporations and provide other services. For example, a corporation selling bonds to investors appoints a trustee, usually a trust company, to protect the bondholders' interests. A trust company can also serve as a transfer agent and registrar for corporations. A *transfer agent* records changes in ownership of a corporation's shares of stock, and a *registrar* certifies to the investing public that stock issues are correctly stated and comply with the corporate charter. Other services include preparing and issuing dividend cheques to stockholders and serving as trustee for employee profit-sharing funds. Trust companies also accept deposits and pay interest on them. As noted previously, trust companies have declined in importance during the last couple of decades.

Credit Unions/Caisses Populaires

Credit unions and *caisses populaires* are cooperative savings and lending associations formed by a group with common interests. They are important because they lend money to businesses and to consumers (who use the money to buy durable goods such as cars and furniture from businesses). Members (owners) can add to their savings accounts by authorizing deductions from their paycheques or by making direct deposits. They can borrow short-term, long-term, or mortgage funds from the credit union. Credit unions invest substantial amounts of money in corporate and government securities and sell certificates of deposits to the general public. According to a Moody's Investor Services report, credit unions are gaining popularity because they offer many services available at banks and they tend to pay dividends to their members when they make profits. In 2010, credit unions accounted for 16 percent of domestic deposits and 19 percent of mortgages.²⁵

Financial Pillar #3—Specialized Lending and Savings Intermediaries

Life Insurance Companies

A **life insurance company** shares risk with its policyholders in return for payment of a premium by policyholders. It lends some of the money it collects from premiums to borrowers. Life insurance companies are substantial investors in real estate mortgages and in corporate and government bonds. Next to chartered banks, they are the largest financial intermediaries in Canada. We discuss insurance in Chapter 16.

Factoring Companies

An important source of short-term funds for many firms is factoring companies. A **factoring company** (or **factor**) buys accounts receivable (amounts due from credit customers) from a firm. It *pays* less than the face value of the accounts but *collects* the entire face value of the accounts. The difference, minus the cost of doing business, is the factor's profit. A firm that sells its accounts receivable to a factor shifts the risk of credit loss to the factor. If an account turns out to be uncollectible, the factor suffers the loss.

Financial Corporations

A **sales finance company** specializes in financing instalment purchases made by individuals and firms. When you buy durable goods from a retailer on an instalment plan with a sales finance company, the loan is made directly to you. The item itself serves as security for the loan. Sales finance companies enable firms to sell on credit, even though the firms could not afford to finance credit sales on their own. General Motors Acceptance Corporation (GMAC) is a sales finance company that finances instalment contracts resulting from sales made by General Motors. Industrial Acceptance Corporation is a large Canadian sales finance company.

A **consumer finance company** makes personal loans to consumers. Often, the borrower pledges no

TRUST COMPANY

Safeguards funds and estates entrusted to it; may also serve as trustee, transfer agent, and registrar for corporations.

CREDIT UNIONS

Co-operative savings and lending association formed by a group with common interests.

LIFE INSURANCE

COMPANY A mutual or stock company that shares risk with its policyholders for payment of premiums.

FACTORING COMPANY (OR FACTOR)

Buys accounts receivable from a firm for less than their face value and then collects the face value of the receivables.

SALES FINANCE

COMPANY Specializes in financing instalment purchases made by individuals or firms.

CONSUMER

FINANCE COMPANY Makes personal loans to consumers.

VENTURE CAPITAL FIRM

Provides funds for new or expanding firms thought to have significant potential.

PENSION FUND

Accumulates money that will be paid out to plan subscribers in the future.

security (collateral) for the loan. For larger loans, collateral may be required. These companies do not make loans to businesses, but they do provide the financing that allows consumers to buy goods and services from businesses. Household Finance Corporation is an example of a consumer finance company.

(the underwriting function). They also facilitate secondary trading of stocks and bonds, both on stock exchanges and on over-the-counter stock and bond markets (the brokerage function). These functions are described in more detail later in this chapter.

Other Sources of Funds

Venture Capital Firms

A **venture capital firm** provides funds for new or expanding firms that seem to have significant potential. For example, Google announced in 2009 that it had started a venture capital fund to support “young companies with awesome potential.”²⁶ Venture capital firms may demand an ownership stake of 50 percent or more before they will buy into a company. Because financing new, untested businesses is risky, venture capital firms also want to earn a higher-than-normal return on their investment. They may insist that they be given at least one seat on the board of directors to observe how their investment is faring. Venture capital firms look for companies with growth potential that could lead to substantial increases in stock value.

Venture capital firms obtain their funds from initial capital subscriptions, from loans from other financial intermediaries, and from retained earnings. The amount of venture capital that is raised varies according to economic conditions. In 2009, venture capital firms raised a total of \$1.01 billion in Canada, but this continued a negative trend and represented the lowest levels in 14 years.²⁷ Canada’s venture capital industry has been experiencing serious problems over the past few years. Many Canadian entrepreneurs have turned to U.S.-based venture capital companies for funding.²⁸ In the first quarter of 2010, the energy and environmental technology sector was one bright spot that was experiencing major growth in venture capital funding.²⁹

Pension Funds

A **pension fund** accumulates money that will be paid out to plan subscribers at some time in the future. The money collected is invested in corporate stocks and bonds, government bonds, or mortgages until it is to be paid out.

Financial Pillar #4— Investment Dealers

Investment dealers (called stockbrokers or underwriters) are the primary distributors of new stock and bond issues

Government Financial Institutions and Granting Agencies

In Canada, a number of government suppliers of funds are important to business. In general, they supply funds to new and/or growing companies. However, established firms can also use some of them.

The *Business Development Bank of Canada (BDC)* makes term loans, primarily to smaller firms judged to have growth potential but unable to secure funds at reasonable terms from traditional sources. It provides proportionally more equity financing and more management counselling services. A variety of provincial industrial development corporations also provide funds to developing business firms in the hope that they will provide jobs in the province. A number of federal and provincial programs are specifically designed to provide loans to agricultural operators. Most of these, with the exception of farm improvement loans that guarantee bank loans to farmers, are long-term loans for land purchase.

The federal government’s *Export Development Corporation* finances and insures export sales for Canadian companies. The *Canada Mortgage and Housing Corporation (CMHC)* is involved in providing and guaranteeing mortgages. The CMHC is particularly important to the construction industry. Governments are also involved in providing grants to business operations.

International Sources of Funds

The Canadian capital market is just one part of the international capital market. Canadian provinces borrow extensively in foreign markets such as those in London and New York. Canadian corporations likewise find it attractive to borrow in foreign markets. Foreign sources of funds have been important in the economic development of Canada. Although many groups and individuals have expressed concern about foreign ownership of Canadian businesses, projections of Canada’s future capital requirements indicate that we will continue to need these funds. Canadian financial institutions will continue to play a large role in making these funds available.

International Banking and Finance

Banks and other financial institutions play an important role in the international movement of money and in the value that is placed on the currency of various countries. Each nation tries to influence its currency exchange rates for economic advantage in international trade. The subsequent country-to-country transactions result in an *international payments* process that moves money between buyers and sellers on different continents.

Exchange Rates and International Trade

The value of a given currency such as the Canadian dollar reflects the overall supply and demand for Canadian dollars both at home and abroad. This value changes with economic conditions worldwide; therefore, firms watch for trends. In early 2010, the Canadian dollar fluctuated between US\$0.92 and US\$0.99, but at one point in 2007 it was valued at US\$1.10. This was up sharply from its 2002 value of US\$0.63.

The Law of One Price When a country's currency is overvalued, its exchange rate is higher than warranted by its economic conditions, and its high costs make it less competitive. In contrast, an undervalued currency means low costs and low prices. When a currency becomes overvalued, a nation's economic authorities may *devalue* the nation's currency. This causes a decrease in the country's exchange value, making it less expensive for other countries to buy the country's products. If a nation's currency is undervalued, the government can *revalue* the currency, which will make it more expensive for other countries to buy its products.

But how do we know whether a currency is overvalued or undervalued? One method involves a simple concept called the **law of one price**: the principle that identical products should sell for the same price in all countries. In other words, if the different prices of a Rolex watch in different countries were converted into a common currency, the common-denominator price should be the same everywhere.

A simple example that illustrates over- and undervalued currencies is the Big Mac Index, published annually in *The Economist*. The index lists a variety of countries and their Big Mac prices in terms of U.S. dollars. In March 2010, a Big Mac cost \$3.58 in the United States. If a Big Mac in another country costs more than \$3.58, the currency is overvalued; if it costs less than \$3.58, the currency is undervalued. In 2010, the most overvalued currencies were Norway (\$6.87), Switzerland (\$6.16),

and the Eurozone (\$4.62). Canada ranked fourth at (\$4.06). The most undervalued currencies were China, Malaysia, and Thailand. These different values mean that, in theory, you could buy Big Macs in China and sell them in Norway at a profit. If you did that, the demand for burgers would increase in China, driving up the price to match the other countries. In other words, the law of one price would set it (see Table 15.1).³⁰

LAW OF ONE PRICE

The principle that identical products should sell for the same price in all countries.

The International Payments Process

Transactions among buyers and sellers in different countries are simplified through the services provided by their banks. For example, payments from buyers flow through a local bank that converts them from the local currency into the foreign currency of the seller. Likewise, the local bank receives and converts incoming money from the banks of foreign buyers. This *international payments process* is shown in Figure 15.4.³¹

Step 1 A Canadian olive importer withdraws \$1000 from its chequing account to buy olives from a Greek exporter. The local Canadian bank *converts* those dollars into euros at the current exchange rate (0.76704 euros per dollar).

Step 2 The Canadian bank sends the cheque for 767.04 euros (EUR 767.04 = 0.76704 multiplied by 1000) to the exporter in Greece.

Steps 3 and 4 The exporter sends olives to its Canadian customer and deposits the cheque in its local Greek bank. While the exporter now has euros that can be spent in Greece, the importer has olives to sell in Canada. At the same time, a separate transaction is being made between a Canadian machine exporter and a Greek olive oil producer. This time, the importer/exporter roles are reversed between the two countries: the Greek firm needs to *import* a \$1000 olive oil press from Canada.

Steps 5 and 6 EUR 767.04 withdrawn from a local Greek bank account is converted into \$1000 Canadian and sent via cheque to the Canadian exporter.

Steps 7 and 8 The olive oil press is sent to the Greek importer, and the importer's cheque is deposited in the Canadian exporter's local bank account.

The International Bank Structure

There is no worldwide banking system that is comparable, in terms of policymaking and regulatory power, to the system of any single industrialized nation. Rather, worldwide banking stability relies on a loose structure of agreements among individual countries or groups of countries. In addition, local standards and laws vary

Figure 15.4

The international payments process.

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greatly. Read the Managing in Turbulent Times boxed insert entitled “Canadian vs. U.S. Banks.”

The World Bank and the IMF Two United Nations agencies, the World Bank and the International Monetary Fund, help to finance international trade. Unlike true banks, the **World Bank** actually provides only a very limited scope of services. For instance, it funds national improvements by making loans to build roads, schools, power plants, and hospitals. The resulting improvements eventually enable borrowing countries to increase productive capacity and international trade.

The **International Monetary Fund (IMF)** is a group of some 186 nations that have combined their resources for the following purposes:

- to promote the stability of exchange rates
- to provide temporary, short-term loans to member countries
- to encourage members to cooperate on international monetary issues
- to encourage development of a system for international payments

Securities Markets

So far in this chapter we have talked about the importance of money, the various organizations in the Canadian financial system, and international finance. We now turn our attention to securities markets, where the role of money is very obvious. Stocks and bonds are both

known as **securities** because they represent a secured (asset-based) claim on the part of investors. Collectively, the market in which stocks and bonds are sold is called the *securities market*.

Primary and Secondary Markets for Securities

Primary securities markets handle the buying and selling of new stocks and bonds by firms or governments. When new securities are sold to one buyer or a small group of buyers, these *private placements* allow the businesses that use them to keep their plans confidential.

Investment Banking Most new stocks and some bonds are sold to the public market. To bring a new security to market, the issuing corporation must obtain approval from a provincial securities commission. It also needs the services of an investment banker. **Investment bankers** serve as financial specialists in issuing new securities. Well-known institutions like RBC Dominion Securities and TD Securities provide the following services:

WORLD BANK

A United Nations agency that provides a limited scope of financial services, such as funding national improvements in undeveloped countries.

INTERNATIONAL MONETARY FUND (IMF)

United Nations agency consisting of about 186 nations that have combined resources to promote stable exchange rates, provide temporary short-term loans, and serve other purposes.

SECURITIES Stocks, bonds, and mutual funds representing secured, or asset-based, claims by investors against issuers.

PRIMARY SECURITIES MARKET Market in which new stocks and bonds are bought and sold

INVESTMENT BANKERS

Financial specialists in issuing new securities.

Canadian vs. U.S. Banks: Quite a Difference

As the worldwide recession deepened in 2009, increasing concern was expressed that many U.S. banks were in financial trouble. That news was in sharp contrast to the situation in Canada, where the top five Canadian banks earned \$18.9 billion in profits. Meanwhile, the top five U.S. banks lost \$37 billion. A 2009 World Economic forum report ranked the Canadian banking system as the soundest in the world. (The U.S. ranked fortieth.)

There are three major reasons for the differences in performance between U.S. and Canadian banks. First, Canadian banks are more strictly regulated than U.S. banks. For example, Canadian banks must maintain a bigger cushion to absorb potential losses, and their shares must be widely held. The Office of the Superintendent of Financial Institutions, Canada's banking regulator, gets credit for being very conservative and keeping a close watch on the activities of Canadian banks. There is a bit of irony here, because the characteristics of the Canadian banking system, which have worked well in the recent financial crisis, are the same characteristics that Canadian consumers have complained about for years.

Second, the U.S. and Canadian banking industries are structured differently. In the U.S., there are thousands of banks, and most of them have just one (or a few) branches. In contrast, in Canada there are very few banks, but each one has hundreds of branches. The large number of banks in the U.S. made it difficult to determine how big the problems were when the recession hit in 2008. By the time it became clear that

there were major problems, drastic action was needed to fix them. Multibillion-dollar bailouts were provided for financial institutions as the U.S. tried to cope with bank problems, and President Obama admitted that the Canadian banking system was managed much better than the U.S. banking system. Canadian banks in the U.S.—Royal Bank's RBC Bank, Bank of Montreal's Harris Bank, and Toronto Dominion's TD Bank—all noted a surge in deposits as their U.S. rivals struggled with financial problems.

Third, Canadian laws limited the amount of foreign competition that Canadian banks have to face, so Canadian banks did not feel compelled to take on the kinds of risky mortgages that got U.S. banks into trouble. As well, the risk-averse nature of Canadian banks served them well when the recession hit. When they did get involved, they showed the risky mortgages on their balance sheets so the public knew exactly what their financial condition was.

Critical Thinking Questions

1. Is there a trade-off between bank responsiveness to customers and customer satisfaction with banks?
2. Consider the following statement: "*Governments around the world should continuously apply very strict standards for banks, even in good economic times, so that the kinds of financial problems that developed in the U.S. will not happen again.*" Do you agree with the statement? Explain your reasoning.

SECONDARY SECURITIES

MARKET The sale and purchase of previously issued stocks and bonds.

- 1 They advise companies on the timing and financial terms for a new issue.
- 2 By underwriting (buying) the new securities, investment bankers bear some of the risk of issuing a new security.
- 3 They create the distribution network that moves the new securities through groups of other banks and brokers into the hands of individual investors.

New securities represent only a small portion of securities traded. The market for existing stocks and bonds—the **secondary securities market**—is handled

by organizations like the Toronto Stock Exchange. We will consider the activities of these markets later in this chapter.

LO-4 Stocks

Each year, millions of investors buy and sell the stocks of thousands of Canadian and international companies. This widespread ownership has become possible because of the availability of different types of stocks and because markets have been established for conveniently buying and selling them. In this section, we will focus on *common* and *preferred stock* as securities and the *stock exchanges* where they are bought and sold.

Common Stock

Individuals and companies buy a firm's common stock, hoping that the stock will increase in value (a capital gain) and/or will provide dividend income. Stock values are expressed in three ways: *par value*, *market value*, and *book value*.

Par Value The face value of a share of stock, its **par value**, is set by the issuing company's board of directors. Each company must preserve money in the amount of its stock's par value in its retained earnings, and cannot distribute it as dividends.

Market Value A stock's real value is its **market value**—the current price of a share in the stock market. The price of a stock can be influenced by both objective factors (company profits) and by subjective factors, including *rumours* (e.g., claims that a company has made a big gold strike), *investor relations* (publicizing the positive aspects of a company's financial condition to financial analysts and financial institutions), and *stockbroker recommendations* (a recommendation to buy a stock may increase demand and cause its price to increase, while a recommendation to sell can decrease demand and cause the price to fall). None of these actions is illegal.

Overall, the market value of stocks can show different movements during different decades. For example, in the 1930s, the S&P Financial Index experienced a 41.2 percent decline. The only other negative decade occurred in the 2000s, which showed a 24.1 percent decline; it is referred to by some as the "lost decade." Conversely, the 1990s were a time of great prosperity, with a 308.5 percent increase.³²

The **market capitalization** of a company's stock is computed by multiplying the number of a company's outstanding shares times the market value of each share. Because stock prices change every day, so does market capitalization. The Royal Bank topped the Canadian list in 2009 with a market capitalization of approximately \$54 billion.³³

Book Value *Stockholders' equity* is the sum of a company's common stock par value, retained earnings, and additional paid-in capital. The **book value** of common stock represents stockholders' equity divided by the number of shares. Book value is used as a comparison indicator because, for successful companies, the market value is usually greater than its book value. Thus, when market price falls to near book value, some investors buy the stock on the principle that it is underpriced and will increase in value in the future.

Preferred Stock

Preferred stock is usually issued with a stated par value, such as \$100. Dividends paid on preferred stock are

usually expressed as a percentage of the par value. For example, if a preferred stock with a \$100 par value pays a 6 percent dividend, stockholders would receive an annual dividend of \$6 on each share.

Some preferred stock is *callable*, meaning the issuing firm can require the preferred stockholders to surrender their shares in exchange for a cash payment. The amount of this cash payment, known as the *call price*, is specified in the agreement between the preferred stockholders and the firm.

Stock Exchanges

A **stock exchange** is an organization of individuals formed to provide an institutional setting in which stock can be bought and sold. The exchange enforces certain rules to govern its members' trading activities. Most exchanges are non-profit corporations established to serve their members. To become a member, an individual must purchase one of a limited number of "seats" on the exchange. Only members (or their representatives) are allowed to trade on the exchange. In this sense, because all orders to buy or sell must flow through members, they have a legal monopoly. Memberships can be bought and sold like other assets.

A **stockbroker** receives buy and sell orders from those who are not members of the exchange and executes the orders. In return, the broker earns a commission from the order placer. Like many products, brokerage assistance can be purchased at either discount or at full-service prices. Buying 200 shares of a \$20 stock costs an investor between \$6.99 to \$19.99 in fees at Scotia iTRADE, and up to \$100 at a full-service brokerage firm. Price differences are obvious even among the discount brokers, but the highest discount price is well below the price of the full-service broker.³⁴

Discount brokerage services cost less because sales personnel receive fees or salaries, not commissions. Unlike many full-service brokers, discount brokers do not offer investment advice or person-to-person sales

PAR VALUE The arbitrary value of a stock set by the issuing company's board of directors and stated on stock certificates; used by accountants but of little significance to investors.

MARKET VALUE The current price of one share of a stock in the secondary securities market; the real value of a stock.

MARKET CAPITALIZATION The dollar value (market value) of stocks listed on a stock exchange.

BOOK VALUE Value of a common stock expressed as total stockholders' equity divided by the number of shares of stock.

STOCK EXCHANGE A voluntary organization of individuals formed to provide an institutional setting where members can buy and sell stock for themselves and their clients in accordance with the exchange's rules.

STOCKBROKER An individual licensed to buy and sell securities for customers in the secondary market; may also provide other financial services.

OVER-THE-COUNTER (OTC) MARKET Organization of securities dealers formed to trade stock outside the formal institutional setting of the organized stock exchanges.

NATIONAL ASSOCIATION OF SECURITIES DEALERS AUTOMATED QUOTATION (NASDAQ) A stock market implemented by NASD that operates by broadcasting trading information on an intranet to more than 350 000 terminals worldwide.

A company must pay a fee before it can list its security on the exchange. The TSX has recently gained strength from an unexpected source: During the last economic recession many U.S. companies looked north and listed on the TSX to take advantage of Canada's relatively strong economic climate.³⁵

Foreign Stock Exchanges Many foreign countries also have active stock exchanges, and several foreign stock exchanges—most notably those in the United States and United Kingdom—trade far more shares each day than the TSX does.

The New York and American Stock Exchanges For many people, "the stock market" means the *New York Stock Exchange (NYSE)*. It was founded in 1792 and is located at the corner of Wall Street and Broad Street. In May 2010, the market value of shares traded on the NYSE was US\$11.6 billion. Only firms meeting certain minimum requirements—earning power, total value of outstanding stock, and number of shareholders—are eligible for listing on the NYSE.³⁶

Other Foreign Stock Exchanges In 1980, the U.S. stock market accounted for more than half the value of the *world* market in traded stocks. Market activities, however, have shifted as the value of shares listed on foreign exchanges continues to grow rapidly. The annual dollar

consultations. However, they offer automated online services: stock research, industry analysis, and screening for specific types of stocks. *Online trading* is popular because of convenient access, fast no-nonsense transactions, and the opportunity for self-directed investors to manage their own investments while paying low fees.

Canadian Stock Exchanges The *Toronto Stock Exchange (TSX)* is the largest stock exchange in Canada. It is made up of about 110 individual members who hold seats. The securities of most major corporations are listed here.

value of trades on exchanges in London, Tokyo, and other cities is now in the trillions. In fact, the London exchange exceeds even the NYSE in number of stocks listed. Exchanges are also flourishing in cities from Shanghai to Warsaw, but risk levels in some markets are very high. The Chinese stock market has been compared to a casino, and it is plagued with corruption, lax government regulation, and financially troubled companies. In 2010, the Chinese stock market lost 19 percent of its value in just one month.³⁷

The Over-the-Counter Market The over-the-counter (OTC) market is so called because its original traders were somewhat like retailers—they kept supplies of shares on hand and, as opportunities arose, sold them over the counter to interested buyers. Even today, the OTC market has no trading floor. It consists of many people in different locations who hold an inventory of securities that are not listed on any of the major exchanges. The OTC market consists of independent dealers who own the securities that they buy and sell at their own risk.

NASDAQ The National Association of Securities Dealers Automated Quotation (NASDAQ) is the world's first electronic stock market.³⁸ The NASDAQ telecommunications system operates the NASDAQ Stock Market by broadcasting trading information on an intranet to over 350 000 terminals worldwide. NASDAQ orders are paired and executed on a computer network. The stocks of nearly 3700 companies are traded by NASDAQ. Many newer firms are listed here when their stocks first become available in the secondary market. Highly traded listings include Apple, Microsoft, Intel, RIM, Baidu, and Netflix.³⁹



Founded in 1792 and located at the corner of Wall and Broad Streets in New York City, the NYSE sees billions of shares change hands each day.

BONDS

A **bond** is an IOU—a written promise that the borrower will pay the lender, at some stated future date, a sum of money (the principal) and a stated rate of interest. Bondholders have a claim on a corporation's assets and earnings that comes before the claims of common and preferred stockholders. All corporations issue common stock, but not all issue bonds. Stockholders provide equity (ownership) capital, while bondholders are lenders (although they are also considered "investors" as far as the securities market is concerned). Stock certificates represent ownership, while bond certificates represent indebtedness.

Bonds differ from one another in terms of maturity date and risk level. To help bond investors make assessments, several services rate the quality of bonds from different issuers. Table 15.2 shows ratings by Moody's and Standard & Poor's. The rating measures the bond's *default risk*—the chance that one or more promised payments will be deferred or missed altogether. The financial crisis of 2008 revealed some significant problems with bond rating agencies. The credibility of companies like Moody's and Standard & Poor's declined because they gave overly favourable ratings to mortgage-backed securities that were actually very risky. People who made investments based on the ratings lost billions of dollars when bonds they thought were safe turned out not to be.⁴⁰ Standard & Poor's is revamping its procedures to help investors understand the difference between traditional corporate bonds and the so-called *structured securities* that turned out to be much riskier than anyone thought.⁴¹

Government Bonds

Government bonds—for example, Canada Savings Bonds—are among the safest investments available. However, securities with longer maturities are somewhat riskier than short-term issues because their longer lives expose them to more political, social, and economic changes. All federal bonds are backed by the Canadian government. Government securities are sold in large blocks to institutional investors, who buy them to ensure desired levels of safety in portfolios. In January 2010, it

was reported that net foreign inflows into Canadian bonds was \$86.3 billion. This was the highest level since 1988. In recent years, Canadian bonds have become increasingly attractive for foreign investors, especially Americans (75 percent of the inflows), because of Canada's relatively healthy finances and economy.⁴²

Provincial and local governments also issue bonds (called *municipal bonds*) to finance school and transportation systems and a variety of other projects. Banks invest in bonds nearing maturity because they are relatively safe, liquid investments. Pension funds, insurance companies, and private citizens also make longer-term investments in municipal bonds.

Corporate Bonds

Corporate bonds are a major source of long-term financing for Canadian corporations. They usually have maturity dates of 10, 20, or 30 years. Longer-term corporate bonds are somewhat riskier than shorter-term bonds. Unlike stocks, nearly all secondary trading in bonds occurs in the over-the-counter market rather than on organized exchanges. Like stocks, market values and prices of bonds change daily. The direction of bond prices moves opposite to interest rate changes—as interest rates move up, bond prices tend to go down. The prices of riskier bonds fluctuate more than those of higher-grade bonds and often exceed the interest rate of the economy. Corporate bonds may be categorized in two ways: (1) according to methods of interest payment, and (2) according to whether they are *secured* or *unsecured*.

Interest Payment: Registered and Bearer Bonds

Registered bonds register the names of holders with the company, which simply mails out cheques. Certificates are of value only to registered holders. **Bearer (or coupon) bonds** require bondholders to clip coupons from certificates

BOND A written promise that the borrower will pay the lender, at a stated future date, the principal plus a stated rate of interest.

REGISTERED BONDS The names of holders are registered with the company.

BEARER (OR COUPON) BONDS Require bondholders to clip coupons from certificates and send them to the issuer to receive interest payments.

Table 15.2 Bond Ratings

	High Grade	Medium Grade (Investment Grade)	Speculative	Poor Grade
Moody's	Aaa Aa	A Baa	Ba B	Caa to C
Standard & Poor's	AAA AA	A BBB	BB B	CCC to D

SECURED BONDS

Bonds issued by borrowers who pledge assets as collateral in the event of non-payment.

DEBENTURES

Unsecured bonds.

CALLABLE BOND

A bond that may be paid off by the issuer before the maturity date.

SINKING-FUND

PROVISION A clause in the bond indenture (contract) that requires the issuing company to put enough money into a special bank account each year to cover the retirement of the bond issue on schedule.

SERIAL BOND

A bond issue in which redemption dates are staggered so that a firm pays off portions of the issue at different predetermined dates.

CONVERTIBLE

BOND Any bond that offers bondholders the option of accepting common stock instead of cash in repayment.

and send them to the issuer in order to receive payment. Coupons can be redeemed by anyone, regardless of ownership.

Bond Security Borrowers can reduce the risk of their bonds by pledging assets to bondholders in the event of default. **Secured bonds** can be backed by mortgages or other specific assets. If the corporation does not pay interest when it is due its assets can be sold and the proceeds used to pay the bondholders. Unsecured bonds are called **debentures**. No specific property is pledged as security for these bonds. Holders of unsecured bonds generally have claims against property not otherwise pledged in the company's other bonds. Accordingly, debentures have inferior claims on the corporation's assets. Financially strong corporations often use debentures.

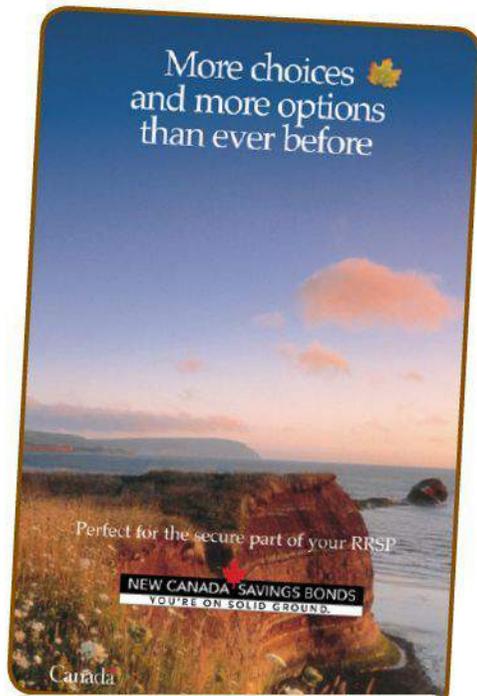
The Retirement of Bonds

Maturity dates on bonds of all kinds may be very long. But at some point, all bonds must be paid off. In terms of maturity

dates, there are three types of bonds: *callable*, *serial*, and *convertible*.

Callable Bonds The issuer of a **callable bond** has the right at almost any time to call the bonds in and pay them off at a price stipulated in the bond indenture (contract). Issuers are most likely to call in existing bonds when the prevailing interest rate is lower than the rate being paid on the bond. But the price the issuer must pay to call in the bond, the *call price*, usually gives a premium to the bondholder. For example, a bond might have a \$100 face value and be callable by the firm for \$108.67 any time during the first year after being issued. The call price and the premium decrease annually as the bond nears maturity.

Bonds are often retired by the use of a **sinking-fund provision** in the bond indenture. This method requires the issuing company to put a certain amount of money into a special bank account each year. At the end of a number of years, the money in this account (including interest) is sufficient to redeem the bonds. Failure to meet the sinking-fund provision places the bond issue in default.



Private corporations are not the only organizations that issue bonds. The Government of Canada issues Canada Savings Bonds to finance its debt.

Bonds with sinking funds are generally regarded as safer investments than bonds without them.

Serial and Convertible Bonds As an alternative to sinking funds, some corporations issue serial or convertible bonds. In a **serial bond** issue, the firm retires portions of the bond issue at different predetermined dates. For example, in a \$100 million serial bond issue maturing in 20 years, the company may retire \$5 million of the issue each year.

Convertible bonds can be converted to common stock, at the option of the bondholder. Since this option gives bondholders a chance for capital gains, the company can offer lower interest rates when issuing these bonds. Suppose that in 2004, Canadian Arctic Explorations sold a \$100 million issue of 4.5 percent convertible bonds. The bonds were issued in \$1000 denominations; they mature in 2014. At any time before maturity, each debenture of \$1000 is convertible into 19.125 shares of the company's common stock. Assume that between October 2004 and March 2011, the stock price ranged from a low of \$28 to a high of \$67. In that time, then, 19.125 common shares had a market value ranging from \$535 to \$1281. In other words, the bondholder could have exchanged the \$1000

bond in return for stock to be kept or sold at a possible profit (or loss).

LO-5 Other Investments

Although stocks and bonds are very important, they are not the only marketable securities for businesses. Financial managers are also concerned with investment opportunities in *mutual funds*, *hedge funds*, *commodities*, and *stock options*.

Mutual Funds

Mutual funds pool investments from individuals and other firms to purchase a portfolio of stocks, bonds, and short-term securities. For example, if you invest \$1000 in a mutual fund that has a portfolio worth \$100 000, you own 1 percent of the portfolio. Mutual funds usually have portfolios worth many millions of dollars. Investors in **no-load funds** are not charged a sales commission when they buy into or sell out of the mutual fund. **Load funds** carry a charge of between 2 and 8 percent of the invested funds. Mutual funds give small investors access to professional financial management. Their managers have up-to-date information about market conditions and the best large-scale investment opportunities.

Mutual funds vary by the investment goals they stress. Some stress safety and invest in treasury bills and other safe issues that offer income (liquidity). Other funds seek higher current income and are willing to sacrifice some safety. Still other mutual funds stress growth. Aggressive-growth mutual funds seek maximum capital appreciation; they sacrifice current income and safety and invest in new companies, and other high-risk securities.

Ethical Funds Mutual funds that stress socially responsible investing are called **ethical funds**. They will not invest in cigarette manufacturers or companies that make weapons, for example, and instead focus on investing in companies that produce safe and useful products and show concern for their employees, for the environment, and for human rights. While many companies offer such investments, The Ethical Funds Company is dedicated to this mission.

Hedge Funds

Hedge funds are private pools of money that try to give investors a positive return regardless of stock market performance. Hedge funds often engage in risky practices like *short-selling* (essentially betting that a company's stock price will go down) and *leveraging* (borrowing money against principal). Historically, interest

in hedge funds has been limited to wealthy people (called "accredited investors") who are assumed to be very knowledgeable about financial matters and are able to weigh the risks of investing. But recently, hedge funds have begun marketing their products to the average investor with something called "principal-protected notes." They guarantee that investors will get their original investment back at a certain time, but they do not guarantee that any additional returns will be forthcoming. Some hedge funds have been in the news for all the wrong reasons. For example, an Ontario Securities Commission panel ruled that two executives from the now-defunct Norshield Asset Management Ltd. knowingly misled their clients and investigators and failed to keep proper books. Losses are estimated at \$159 million from 1900 retail investors.⁴³

Commodities

Futures contracts—agreements to purchase a specified amount of a commodity at a given price on a set date in the future—are available for commodities ranging from coffee beans and live hogs to propane and platinum, as well as for stocks. Since selling prices reflect traders' beliefs about the future, prices of such contracts are very volatile, and futures trading is very risky.

For example, on January 3, 2010, the price of gold was \$1100 per ounce, and futures contracts for July 2010 gold were selling for \$1075 per ounce. This price would reflect investors' judgment that gold prices would be slightly lower in July. Now suppose that you purchased a 100-ounce gold futures contract in January for \$107 500 ($\1075×100). If in March 2011, the July gold futures sold for \$1150, you could sell your contract for \$115 000. Your profit after the two months would be \$7500. Of course, if the futures contract had been selling for less than \$1075, you would have lost money.

Margins Usually, buyers of futures contracts need not put up the full purchase amount. Rather, the buyer posts

MUTUAL FUND

Any company that pools the resources of many investors and uses those funds to purchase various types of financial securities, depending on the fund's financial goals.

NO-LOAD FUND

A mutual fund in which investors are not charged a sales commission when they buy into or sell out of the fund.

LOAD FUND A mutual fund in which investors are charged a sales commission when they buy into or sell out of the fund.

ETHICAL FUNDS

Mutual funds that stress socially responsible investing.

HEDGE FUNDS

Private pools of money that try to give investors a positive return regardless of stock market performance.

FUTURES CONTRACTS

Agreement to purchase specified amounts of a commodity (or stock) at a given price on a set future date.

MARGIN The percentage of the total sales price that a buyer must put up to place an order for stock or a futures contract.

STOCK OPTION The purchased right to buy or sell a stock.

CALL OPTION The purchased right to buy a particular stock at a certain price until a specified date.

PUT OPTION The purchased right to sell a particular stock at a certain price until a specified date.

a smaller amount—the **margin**—that may be as little as \$3000 for contracts of \$100 000. Let us look again at our gold futures example. If you had posted a \$3300 margin for your July gold contract, you would have earned a \$7500 profit on that investment of \$3300 in only two months. However, you also took a big risk involving two big *ifs*: If you had held on to your contract until July *and* if gold had dropped, say to \$1025, you would have lost \$5000 (\$107 500 – \$102 500). If you had posted a \$3300 margin to buy the contract, you would have lost that entire margin and would owe an additional \$1700.

Between 75 and 90 percent of all small-time investors lose money in the futures market.

The boxed insert entitled “Green Trading” describes a different kind of trading that is being increasingly debated.

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Stock Options

A **stock option** is the right to buy or sell a stock. A **call option** gives its owner the right to buy a particular stock at a certain price, with that right lasting until a particular date. A **put option** gives its owner the right to sell a particular stock at a specified price, with that right lasting until a particular date. These options are traded on several stock exchanges.

Suppose that you thought the price of Research In Motion (RIM) (which sold for \$63.79 per share on May 28, 2010) was going to go up. You might buy a call option giving you the right to buy 100 shares of RIM any time in the next two months at a so-called *strike price* of \$75.

THE GREENING OF BUSINESS

Green Trading

Traders are accustomed to using financial markets for investing in just about everything—ranging from pork bellies to movie production—in the hope of gaining a profit. However, new financial markets for commodities known as *carbon credits* are not driven by just the profit motive but also by a sense of social responsibility. The economic incentives of emissions trading (ET) bring together both environmental polluters and green companies in an effort to save the planet and turn a profit.

Here’s how it works. Regulators in various countries are setting limits on the amounts of several industrial pollutants that can be released into the atmosphere, including carbon dioxide (CO₂), sulphur dioxide, and mercury. A leading example is the European Union’s Emissions Trading Scheme (ETS), which was started by the European Commission in 2005 to meet the EU’s obligations for carbon reductions in accordance with the Kyoto Protocol on Climate Change. The ETS annually sets a cap for the total amount of CO₂ emission allowed for each EU country and for each business in that country. The country totals and the EU total cannot exceed the caps.

Individual companies are issued a permit containing a number of credits that represent the right to emit a certain amount of CO₂. Any company producing

below its CO₂ cap can sell its surplus credits to other, more pollution-prone companies that need more credits to keep operating without going over their cap. This is where the trading opportunities arise. It’s like a stock exchange that quickly matches up buyers and sellers, in this case buyers and sellers of emissions credits.

With emissions trading, environmentally oriented companies sell unneeded emissions allowances and gain a financial return on their past investment for reducing pollution. Such companies view environmental cleanup not as an expense but as a responsible investment. Other companies that have previously avoided making such investments face higher costs as they bid for others’ unused carbon credits. The trading scheme has created a new financial incentive for the development of cleaner industries that reduce carbon emissions and other greenhouse gases.

Critical Thinking Questions

1. What are the advantages of emissions trading? What are the disadvantages?
2. What has been the experience of the European Union to date with emissions trading?
3. What is the Canadian government doing about introducing emissions trading?

If the stock rose to \$85 before July, you would exercise your call option. Your profit would be \$10 per share (\$85 – \$75) less the price you paid to buy the option. However, if the stock price fell instead of rising, you would not exercise your call option because RIM would be available on the open market for less than \$75 per share. Your stock option would be “under water”; that is, it would be worthless. You would lose whatever you paid for the option. In recent years, there has been much negative publicity about stock options that are *given* to executives to motivate them to work hard for the company.

LO-6 Buying and Selling Securities

The process of buying and selling stocks, bonds, and other financial instruments is complex. You need to gather information about possible investments and match them to your investment objectives. Then you must decide whether you want to use a broker to buy and sell stocks, or whether you want to do it yourself.

Using Financial Information Services

Have you ever looked at the financial section of your daily newspaper and found yourself wondering what all those tables and numbers mean? If you cannot read stock and bond quotations, you probably should not invest in them. Fortunately, this skill is easily mastered.

Stock Quotations Figure 15.5 shows the type of information newspapers provide about daily market

transactions of individual stocks. The corporation’s name is shown along with the number of shares sold, the high and low prices of the stock for that trading day, the closing price of the stock, and the change from the closing price on the previous day.

Bond Quotations Bond prices also change daily. These changes form the *coupon rate*, which provides information for firms about the cost of borrowing funds. Prices of domestic corporation bonds, Canadian government bonds, and foreign bonds are reported separately. Bond prices are expressed in terms of 100, even though most have a face value of \$1000. Thus a quote of 85 means that the bond’s price is 85 percent of its face value, or \$850.

A corporate bond selling at 155¼ would cost a buyer \$1552.50 (\$1000 face value multiplied by 1.5525), plus commission. The interest rate on bonds is also quoted as a percentage of par, or face, value. Thus “6½s” pay 6.5 percent of par value per year. Typically, interest is paid semi-annually at half of the stated interest or coupon rate.

The market value (selling price) of a bond at any given time depends on three things: its stated interest rate, the “going rate” of interest in the market, and its redemption or maturity date. A bond with a higher stated interest rate than the going rate on similar quality bonds will probably sell at a premium above its face value—its selling price will be above its redemption price. A bond with a lower stated interest rate than the going rate on similar quality bonds will probably sell at a discount—its selling price will be below its redemption price. How much the premium or discount is depends largely on how far in the future the maturity date is. The maturity date is shown after the interest rate. Figure 15.6 shows the type of information daily newspapers provide.

Figure 15.5
How to read a daily stock quotation.

Company	Volume	High	Low	Close	Change
Four Seasons	633	67.49	65.27	66.15	-1.13
Goldcorp	35 233	31.99	30.65	31.15	+0.83
GW Life	54	25.80	25.57	25.80	-0.22
Hudson Bay	32 376	15.06	15.00	15.04	-0.02
Vale Inco	18 640	58.82	57.01	58.05	+0.84
Ipsco	4341	106.40	104.09	105.75	-0.25
Jean Cou	6918	14.56	14.31	14.31	-0.06
Kinross	72 321	13.68	12.92	13.10	+0.27

- **Stock**
Vale Inco (Name of Company).
- **Volume**
18 640 (total number of shares traded on this date [in 100's]).
- **High and Low**
During the trading day, the highest price was \$58.82 and the lowest price was \$57.01.
- **Close**
At the close of trading on this date, the last price paid per share was \$58.05.
- **Net Change**
Difference between today's closing price and the previous day's closing price. Price increased by 84 cents per share.

MARKET INDEX

A measure of the market value of stocks; provides a summary of price trends in a specific industry or of the stock market as a whole.

BULL MARKET

A period of rising stock prices; a period in which investors act on a belief that stock prices will rise.

BEAR MARKET

A period of falling stock prices; a period in which investors act on a belief that stock prices will fall.

DOW JONES INDUSTRIAL AVERAGE (DJIA)

Market index based on the prices of 30 of the largest firms listed on NYSE.

S&P/TSX INDEX

An average computed from 225 large Canadian stocks from various industry groups.

STANDARD & POOR'S COMPOSITE INDEX (S&P 500)

Market index based on the performance of 400 industrial firms, 40 utilities, 40 financial institutions, and 20 transportation companies.

NASDAQ COMPOSITE INDEX

Value-weighted market index that includes all NASDAQ-listed companies, both domestic and foreign.

For example, market indexes reveal bull and bear market trends. **Bull markets** are periods of upward-moving stock prices. The years 1981–89, 1993–99, and 2004–06 were bull markets. Periods of falling stock prices are called **bear markets**. The years 1972–74, 1991–92, 2000–02, and 2007–09 were bear markets.

The Dow Jones Industrial Average The most widely cited market index is the **Dow Jones Industrial Average (DJIA)**. The Dow is the sum of market prices for 30 of the largest industrial firms listed on the NYSE. By tradition, the Dow is an indicator of blue-chip (top quality) stock

Figure 15.6

How to read a bond quotation.

Issuer	Coupon	Maturity	Price	Yield
GOVERNMENT OF CANADA				
Canada	5.00	June 1, 14	103.71	4.45
Canada	8.00	June 1, 27	145.92	4.58
PROVINCIALS				
Hy Que	6.50	Feb. 15, 11	108.55	4.50
Man	7.75	Dec. 22, 25	135.19	4.93
CORPORATE				
BC Tel	9.65	Apr 8, 22	138.49	6.48
Loblaws	6.65	Nov. 8, 27	107.91	5.99

■ Issuer

Company name is British Columbia Telephone.

■ Coupon

The annual rate of interest at face value is 9.65 percent.

■ Maturity

The maturity date is April 8, 2022.

■ Price

On this date, \$138.9 was the price of the last transaction.

■ Yield

The yield is computed by dividing the annual interest paid by the current market price.

Bond Yield Suppose you bought a \$1000 par-value bond in 1995 for \$650. Its stated interest rate is 6 percent, and its maturity or redemption date is 2015. You therefore receive \$60 per year in interest. Based on your actual investment of \$650, your yield is 9.2 percent. If you hold it to maturity, you get \$1000 for a bond that originally cost you only \$650. This extra \$350 increases your true, or effective, yield.

Market Indexes Although they do not indicate how specific securities are doing, **market indexes** provide a useful summary of trends in specific industries and the stock market as a whole. Such information can be crucial in choosing investments.

price movements. Because of the small number of firms it considers, however, it is a limited gauge of the overall stock market. The Dow increased sharply in the 1990s. It reached 11 000 early in 2000 but dropped to less than 8000 in 2002. By mid-2010, it stood at 11 100.

The S&P/TSX Average The **S&P/TSX index** is an average computed from 225 large Canadian stocks from various industry groups.⁴⁴ The index has also been very volatile during the last few years. It moved sharply upward during the bull market of the 1990s and topped 11 000 in the summer of 2000. It then dropped to 6500 by the end of 2000. By mid-2010, it had risen to 12 700.

The S&P 500 Standard & Poor's Composite Index (S&P 500) consists of 500 stocks, including 400 industrial firms, 40 utilities, 40 financial institutions, and 20 transportation companies. The index average is weighted according to market capitalization of each stock, so the more highly valued companies exercise a greater influence on the index.

The NASDAQ Composite Because it considers more stocks, some stock market observers regard the **NASDAQ Composite Index** as the most important of all market indexes. Unlike the Dow and the S&P 500, all NASDAQ-listed companies are included in the index. The NASDAQ market has been very volatile. In early 2000, it reached 5000, but by 2001 had dropped to just 1300. In mid-2010 it stood at only 2050.

Buying and Selling Stocks

Based on your own investigations and/or recommendations from your broker, you can place many types of

orders. A **market order** requests the broker to buy or sell a certain security at the prevailing market price at the time. A **limit order** authorizes the purchase of a stock only if its price is less than or equal to a given limit. For example, a limit order to buy a stock at \$60 per share means that the broker is to buy it if and only if the stock becomes available for a price of \$80 or less. Similarly, a stop order instructs the broker to sell a stock if its price falls to a certain level. For example, a **stop order** of \$85 on a particular stock means that the broker is to sell it if and only if its price falls to \$85 or below.

You can also place orders of different sizes. A **round lot** order requests 100 shares or some multiple thereof. Fractions of a round lot are called odd lots. Trading **odd lots** is usually more expensive than trading round lots, because an intermediary called an odd-lot broker is often involved, which increases brokerage fees.

The business of buying and selling stocks is changing rapidly. Formerly, a person had to have a broker to buy and sell stocks. More and more individuals are now buying and selling stocks on the internet, and traditional brokers are worried that before long, customers will avoid using their services.

Financing Securities Purchases

When you place a buy order of any kind, you must tell your broker how you will pay for the purchase. You might maintain a cash account with your broker. Then, as stocks are bought and sold, proceeds are added into the account and commissions and costs of purchases are withdrawn by the broker. You can also buy shares on credit.

Margin Trading As with futures contracts, you can buy stocks on *margin*—putting down only a portion of the stock's price. You borrow the rest from your broker, who, in turn, borrows from the banks at a special rate and secures the loans with stock. Suppose you purchased \$100 000 worth of stock in WestJet. Let's also say that you paid \$50 000 of your own money and borrowed the other \$50 000 from your broker at 10 percent interest. Valued at its market price, your stock serves as your collateral. If shares have risen in value to \$115 000 after one year, you can sell them and pay your broker \$55 000 (\$50 000 principal plus \$5000 interest). You will have \$60 000 left over. Your original investment of \$50 000 will have earned a 20 percent profit of \$10 000. If you had paid the entire price out of your own pocket, you would have earned only a 15 percent return.

Although investors often recognize possible profits to be made in margin trading, they sometimes fail to consider that losses can be amplified. If the value of your initial WestJet investment of \$100 000 had instead fallen to \$85 000 after one year, you would have lost 15 percent if you had paid out of pocket. However, if you had used

margin trading, you would have lost \$20 000 (\$5000 interest payment + \$15 000 share decrease) on a \$50 000 investment, which amounts to a 40 percent loss.

The rising use of margin credit by investors was a growing concern during the bull market of 2004–06. Investors focused on the upside benefits but were not sensitive enough to the downside risks. Especially at online brokerages, inexperienced traders were borrowing at an alarming rate, and some were using the borrowed funds for risky and speculative day trading. So-called *day traders* visited websites online to buy and sell a stock in the same day (so-called *intraday trades*), seeking quick in-and-out fractional gains on large volumes (many shares) of each stock. While some day traders were successful, most ended up as financial losers.

Short Sales In addition to money, brokerages also lend buyers securities. A **short sale** begins when you borrow a security from your broker and sell it (one of the few times it is legal to sell what you do not own). At a given time in the future, you must restore an equal number of shares of that issue to the brokerage, along with a fee.

For example, suppose that in June you believe the price of Bombardier stock will soon fall. You order your broker to sell short 1000 shares at the market price of \$5 per share. Your broker will make the sale and credit \$5000 to your account. If Bombardier's price falls to \$3.50 per share in July, you can buy 1000 shares for \$3500 and give them to your broker, leaving you with a \$1500 profit (before commissions). The risk is that Bombardier's price will not fall but will hold steady or rise, leaving you with a loss.

Securities Regulation

In 1912, the Manitoba government was a Canadian pioneer in making laws applying mainly to the sale of new securities. Under these "**blue-sky laws**," corporations issuing securities must back them up with something

MARKET ORDER

An order to a broker to buy or sell a certain security at the current market price.

LIMIT ORDER

An order to a broker to buy a certain security only if its price is less than or equal to a given limit.

STOP ORDER

An order to a broker to sell a certain security if its price falls to a certain level or below.

ROUND LOT The purchase or sale of stock in units of 100 shares.

ODD LOT The purchase or sale of stock in units of other than 100 shares.

SHORT SALE Selling borrowed shares of stock in the expectation that their price will fall before they must be replaced, so that replacement shares can be bought for less than the original shares were sold for.

BLUE-SKY LAWS

Laws regulating how corporations must back up securities.

PROSPECTUS

A detailed registration statement about a new stock filed with a provincial securities exchange; must include any data helpful to a potential buyer.

INSIDER TRADING

The use of special knowledge about a firm to make a profit on the stock market.

more than the blue sky. Similar laws were passed in other provinces. Provincial laws also generally require that stockbrokers be licensed and securities be registered before they can be sold. In each province, issuers of proposed new securities must file a prospectus with the provincial securities exchange. A **prospectus** is a detailed registration statement that includes information about the firm, its operation, its management, the purpose of the proposed issue, and any other data helpful to a potential buyer of these securities. The prospectus must be made available to prospective investors.

The Ontario Securities Act contains disclosure provisions for new and existing issues, prevention of fraud,

regulation of the Toronto Stock Exchange, and takeover bids. It also prohibits **insider trading**, which is the use of special knowledge about a firm to make a profit in the stock market. The Toronto Stock Exchange provides an example of self-regulation by the industry. The TSX has regulations concerning listing and delisting of securities, disclosure requirements, and issuing of prospectuses for new securities.

Unlike the United States with its Securities and Exchange Commission (SEC), Canada does not yet have a comprehensive federal regulatory body. In fact, Canada is the only country in the industrialized world that does not have a single regulator.⁴⁵ But in 2010, the federal government continued to move toward a new national securities act complete with a governing body called the Canadian Securities Regulatory Authority (CSRA). Reactions have been mixed, with the RCMP claiming that the Act does not go far enough to address criminal activity in securities trading. Time will tell, but it is clearly a step in the right direction.⁴⁶

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Summary of Learning Objectives

1. **Define *money* and identify the different forms it takes in Canada's money supply.** Any item that is portable, divisible, durable, and stable satisfies the four basic characteristics of *money*. Money also serves three functions: a medium of exchange, a store of value, and a unit of account. The nation's money supply is often determined by two measures. *M-1* includes liquid (or spendable) forms of money: currency (bills and coins), demand deposits, and other "chequable" deposits. *M-2* includes *M-1* plus items that cannot be directly spent but that can be easily converted to spendable forms: time deposits, money market funds, and savings deposits. *Credit* must also be considered as a factor in the money supply.
2. **Understand the different kinds of *financial institutions* that make up the Canadian financial system and explain the services they offer.** There are four financial pillars in Canada: chartered banks, alternate banks, life insurance companies, and investment dealers. Chartered banks are the most important source of short-term funds for business firms. They create money in the form of expanding demand deposits. The four types of financial institutions offer services like financial advice, brokerage services, electronic funds transfer, pension and trust services, and lending of money.
3. **Explain the functions of the *Bank of Canada* and describe the tools it uses to control the money**

supply. The Bank of Canada manages the Canadian economy, controls the money supply, and regulates certain aspects of chartered banking operations. If the Bank of Canada wants to increase the money supply, it can buy government securities or lower the bank rate. If it wants to decrease the money supply, it can sell government securities or increase the bank rate.

4. **Discuss the value of common stock and preferred stock to stockholders and describe the secondary market for each type of security.** *Common stock* gives investors the prospect of capital gains and dividend income. Common stock values are expressed in three ways: *par value*, *market value*, and *book value*. *Preferred stock* is less risky than common stock. Both common and preferred stock are traded on *stock exchanges* (and in *over-the-counter [OTC] markets*). “Members” who hold seats on exchanges act as *brokers*—agents who execute buy-and-sell orders—for non-members.
5. **Describe the investment opportunities offered by bonds, mutual funds, and commodities.** Like stocks and bonds, *mutual funds* offer investors
- different levels of risk and growth potential. *Load funds* require investors to pay commissions of 2 to 8 percent; *no-load funds* do not charge commissions when investors buy in or out. *Futures contracts*—agreements to buy specified amounts of commodities at given prices on preset dates—are traded in the *commodities market*. Commodities traders often buy on *margins*, percentages of total sales prices that must be put up to order futures contracts.
6. **Explain the process by which securities are bought and sold.** Investors generally use such financial information services as newspapers and online stock, bond, and OTC quotations. *Market indexes* such as the Toronto Stock Exchange index, the Dow Jones Industrial Average, the Standard & Poor’s Composite Index and the NASDAQ Composite provide useful summaries of trends. Investors can then place different types of orders. *Market orders* are orders to buy or sell at current prevailing prices. Investors can issue *limit* or *stop orders* that are executed only if prices rise or fall below specified levels. *Round lots* are purchased in multiples of 100 shares. *Odd lots* are purchased in fractions of round lots. Securities can be bought on margin or as part of *short sales*.

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Questions and Exercises

Questions for Analysis

1. What specific changes in banking are shifting banks away from their historical role?
2. Do we really need all the different types of financial institutions we have in Canada? Could we make do with just chartered banks? Why or why not?
3. Should credit cards be counted in the money supply? Why or why not? Support your answer by using the definition of money.
4. Should banks be regulated, or should market forces be allowed to determine the money supply? Defend your answer.
5. Suppose you decided to invest in common stocks as a personal investment. Which kind of broker—full-service or online discount—would you use for buying and selling stock? Why?
6. Choose a stock from the TSX and find a newspaper listing of a recent day’s transactions for the stock. Explain what each element in the listing means.

Application Exercises

7. Start with a \$1000 deposit and assume a reserve requirement of 15 percent. Now trace the amount of money created by the banking system after five lending cycles.
8. Interview several consumers to determine which banking services and products they use (debit cards, ATMs, smart cards, etc.). If interviewees are using these services, determine the reasons. If they are not, find out why not.
9. Interview the manager of a local chartered bank branch. Identify the ways in which the Bank of Canada helps the bank and the ways in which it limits the bank.
10. Contact a broker for information about setting up a personal account for trading securities. Prepare a report on the broker’s requirements for placing buy/sell orders, credit terms, cash account requirements, services available to investors, and commissions/fees schedules.

TEAM EXERCISES

Building Your Business Skills

Market Ups and Downs

Goal

To encourage students to understand the forces that affect fluctuations in stock prices.

Situation

Investing in stocks requires an understanding of the various factors that affect stock prices. These factors may be intrinsic to the company itself or part of the external environment.

- Internal factors relate to the company itself, such as an announcement of poor or favourable earnings, earnings that are more or less than expected, major layoffs, labour problems, management issues, and mergers.
- External factors relate to world or national events, such as the threat of war, the BP oil spill in the Gulf of Mexico, weather conditions that affect sales, the Bank of Canada's adjustment of interest rates, and employment figures that were higher or lower than expected. By analyzing these factors, you will often learn a lot about why a stock did well or why it did poorly. Being aware of these influences will help you anticipate future stock movements.

Method

Step 1 Working alone, choose a common stock that has experienced considerable price fluctuations in the past few years. Here are several examples: BP, Amazon.com, RIM, and Apple. Find the symbol for the stock and the exchange on which it is traded.

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Step 2 Visit the Globe Investor website (or a similar site) and gather information on the particular stock and study its trading pattern. You can also visit your library and find the *Daily Stock Price Record*, a publication that provides a historical picture of daily stock closings. There are separate copies for the various stock exchanges.

Step 3 Find four or five days over a period of several months or even a year when there have been major price fluctuations in the stock. (A two- or three-point price change from one day to the next is considered major.) Then research what happened on that day that might have contributed to the fluctuation. A good place to start is *The Globe and Mail* or *The Wall Street Journal*.

Step 4 Write a short analysis that links changes in stock price to internal and external factors. As you analyze the data, be aware that it is sometimes difficult to know why a stock price fluctuates.

Step 5 Get together with three other students who studied different stocks. As a group, discuss your findings, looking for fluctuation patterns.

Follow-Up Questions

1. Do you see any similarities in the movement of the various stocks during the same period? For example, did the stocks move up or down at about the same time? If so, do you think the stocks were affected by the same factors? Explain your thinking.
2. Based on your analysis, did internal or external factors have the greater impact on stock price? Which factors had the longer-lasting effect? Which factors had the shorter effect?
3. Why do you think it is so hard to predict changes in stock price on a day-to-day basis?

Exercising Your Ethics

Serving Two Masters: Torn between Company and Client

The Situation

Employees in financial services firms are sometimes confronted by conflicting allegiances between the company and its clients. In managing customers' stock portfolios, the best timing for buy and sell decisions for clients' financial positions may not be the most profitable for the financial manager's firm. Investment managers, as a result, must choose a "right" course of action to reconcile conflicting interests.

The Dilemma

George Michaels is a customer portfolio manager employed by Premier Power Investments Company. His 35 clients—individual investors—have portfolios with market values ranging from \$200 000 to \$2 million in stocks, bonds, and mutual funds. Clients generally rely on George's recommendations to buy, sell, or hold each security based on his knowledge of their investment goals and risk tolerance, along with his experience in keeping up with market trends and holding down transactions costs. Premier Power Investments Company earns sales commissions ranging from 2 to 4 percent of market value for each buy and sell transaction.

On Monday morning, George's boss, Vicky Greene, informs him that due to Premier Power Investments Company's sagging revenues, it is to everyone's benefit to increase the number of transactions in customers' portfolios. She suggests that he find some different and attractive securities to replace existing securities for his

customers. As George thinks about possible ways for accelerating his buy and sell recommendations, he has concerns about the motivation behind Vicky's comments. He is unsure what to do.

Team Activity

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

- George Michaels (employee)
- Vicky Greene (employer)
- Portfolio owner (customer)
- Owner (one of many outside shareholders of Premier Power Investments Company)

Action Steps

1. Before discussing the situation with your group, and from the perspective of your assigned role, consider whether there are any ethical issues in this situation. If yes, write them down.
2. Return to your group and reveal ethical issues that were identified by each member. Be especially aware of how different roles resulted in different kinds of ethical issues. Why might role differences result in dissimilar priorities on ethical issues?
3. For the various ethical issues that were identified, decide as a group which one is the most important for Premier Power Investments to resolve. Which issue is second in importance?
4. From an ethical standpoint, what does your group finally recommend be done to resolve the most important ethical issue? To resolve the second most important ethical issue?

Stock Market Games and the Dark Side of Financial Advising

The stock market is supposed to be a place where you can increase your assets over time if you invest wisely and have patience. But some people don't want to trust their financial situation to unpredictable markets, so they come up with creative (often illegal) ways to manipulate the market to ensure that they will get a positive outcome. Unfortunately, it only takes the bad behaviour of a few people to make it seem like the stock market is a haven for con artists. In the following paragraphs, several classic frauds are briefly described.

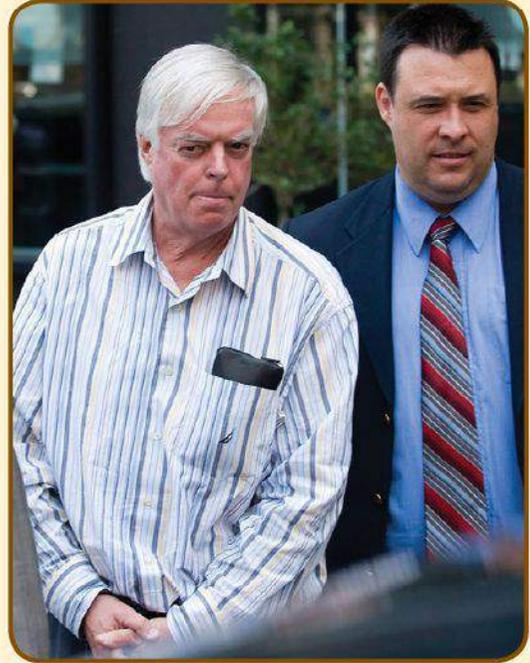
Diverting Investors' Funds

Vincent Lacroix, the founder of Norbourg Asset Management Inc., was found guilty in 2008 of diverting \$115 million from Norbourg into accounts that he and his wife controlled. Some investors lost their entire life savings. Lacroix was sentenced to 12 years in prison and fined \$255 000, but he is appealing the sentence. The case was brought against Lacroix by the *Autorité des marchés financiers* (AMF), which is the securities watchdog in Quebec. The AMF itself is the target of a class action suit that claims that it didn't do enough to protect small investors.

Ponzi Schemes

In 2009, Bernie Madoff confessed to running a Ponzi scheme that bilked investors out of \$50 billion. A Ponzi scheme attracts investors by promising them that they will make very large returns, much larger than can normally be made. Investors who join the scheme early may indeed make large returns because they are being paid with money that is being contributed by later investors. But eventually the scheme collapses, and almost everyone loses their investment. For most of the period from 1990 to 2008, Madoff reported to investors that they were making 12 percent annually on their investment. That was about double what investors could normally be expected to make. But it is alleged that Madoff never invested anyone's money in anything. Rather, he simply falsified financial reports and told people that their "investments" were doing fine. Many charitable organizations and rich individuals lost millions of dollars each as a result of their investment with Madoff.

Closer to home, in 2010, Earl Jones was sentenced to 11 years after his scheme cost 158 Montreal investors



a total of \$50 million. He promised investors 12 percent returns but never invested a penny for them. Upon hearing the sentence, his own brother, Bevon Jones, said that he thought the sentence was too lenient and that his brother should never see the light of day. Bevon Jones lost \$1 million in this scheme.

Insider Trading

Andrew Rankin was an investment banking star with RBC Dominion Securities when he was charged with insider trading and "tipping" his friend Daniel Duic about several big corporate deals that were about to take place. Using the information provided by Rankin, Duic made over \$4 million in profit by buying and selling the stocks of these companies at opportune times. When this was discovered, Duic made a deal with the Ontario Securities Commission to testify against his friend. Rankin was convicted of "tipping" and was sentenced to six months in jail. However, he appealed, and the Ontario Securities Commission agreed to withdraw the criminal charges and he was spared jail

time. Rankin was also fined \$250 000 and barred for life from working in the securities industry.

In another insider trading case, Barry Landen of Agnico-Eagle Mines was found guilty after he sold shares he owned before it became publicly known that the company was going to report poor results. He was sentenced to 45 days in jail and fined \$200 000.

In a third case, Glen Harper, the president of Golden Rule Resources Ltd., was found guilty of insider trading. He had sold \$4 million worth of shares in his company after he found out that its supposedly huge gold find in Ghana was in doubt. When Harper sold his shares, the price of Golden Rule's stock was about \$13 per share. After the bad news became public, the stock fell to \$0.10 a share. Harper was sentenced to one year in prison and fined nearly \$4 million.

High-Closing

In this scheme, just before the stock exchange closes a trader buys enough shares of a given stock so that the price of that stock rises above the price of the previous trade. This makes it look as if the stock has upward momentum. The motivation to "high-close" a stock can be strong for money managers, because they are under intense pressure to increase the value of their portfolios so they can demonstrate high performance and attract more clients. The temptation is particularly strong at year-end because money managers' annual bonuses are tied to their performance.

"Salting" Gold Mines

In a classic case, David Walsh started a small gold-mining company in Calgary that he called Bre-X. After claiming that core samples showed that the company had found a major gold deposit in Indonesia, the price of the stock rose from \$0.27 a share to nearly \$300 a share. But it eventually became clear that the core samples had been tampered with and that there was no gold at the site. The shares of Bre-X quickly became worthless and investors lost millions.

Questions for Discussion

1. What factors determine the market price of a share of stock? Which of those factors were at work in the cases described above that dealt with the issue of stock prices?
2. What is the difference between debt and equity financing? Are the situations described above examples of debt or equity issues? Explain.
3. Consider the following statement: *"Insider trading should not be illegal. In a free-market economy, individuals who have the motivation and intelligence to gather information that allows them to make a lot of money should not be prevented from capitalizing on the information they have collected."* Do you agree or disagree with the statement? Explain your reasoning.

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