

# Chapter 10

## Financial Management and Accounting in the Global Firm

**Learning Objectives** *After studying this chapter, you should be able to:*

- |  |   |
|--|---|
| <b>10.1</b> Understand how to choose a capital structure.        | <b>10.4</b> Describe how to perform capital budgeting.  |
| <b>10.2</b> Understand how to raise funds for the firm.          | <b>10.5</b> Explain how to manage currency risk.  |
| <b>10.3</b> Explain how to manage working capital and cash flow. | <b>10.6</b> Understand how to manage the diversity of international accounting and tax practices. |

### How a Small Firm Navigates Currency Risk

**M**arkel Corporation is a Pennsylvania-based SME that makes wire and tubing for the automotive and fluid-handling industries. The firm exports to Germany, Spain, Japan, and other countries, generating much of its annual sales from abroad. Markel faces the recurring challenges of fluctuating international currencies.

CEO John Kaestle scans the financial news to keep informed about how exchange rates affect sales and profits. An appreciating dollar makes Markel's products more expensive to European and Japanese customers, lessening demand from such sources. But the currency game works both ways—when the euro and yen strengthen, the buying power of European and Japanese customers increases, boosting Markel's sales.

Exchange-rate fluctuations in the \$5 trillion-a-day world currency market exert an impact on small

international firms. Markel experienced such a problem when it quoted prices in its customers' currencies. The firm lost more than \$600,000 due to exchange-rate losses when the U.S. dollar weakened significantly against the euro.

Let's explain with an example. Suppose Markel sells merchandise to its Spanish importer for €50,000, payable in 90 days. The delay in getting paid exposes Markel to currency risk. If the euro depreciates during the 90-day period, Markel will receive fewer dollars.

To deal with fluctuating currency rates, Markel developed a three-part strategy:

- Quote prices in the customer's currency, which results in more consistent prices for the customer and creates more sales.



Source: diego vito cervo/123RF

- Purchase forward contracts to stabilize future dollar-denominated revenues.
- Improve the efficiency of company operations to make it through the times when exchange rates move in the wrong direction and hurt sales.

A forward contract is an agreement to buy or sell currency at an agreed-upon exchange rate for delivery at a specific future date. Firms like Markel buy *forward contracts* from banks to hedge exchange-rate exposure. For example, Markel might enter a forward agreement to sell €50,000, at a date 90 days in the future and an exchange rate agreed on today. This approach ensures that Markel receives a known dollar amount in the future for a sale made today. The goal of such *hedging* is to balance purchases and sales of foreign currencies to lessen exposure to future currency risk. Buying forward contracts helps Markel manage its cash flow.

When the dollar is expected to appreciate (go up in value) against the euro, Markel's chief financial officer hedges the firm's expected euro revenue stream with a forward contract. But Markel's forecast isn't always correct. Suppose Markel buys a €50,000 contract at \$1.05 per euro, or \$52,500. Suppose further that when the contract is exercised at the end of the 90-day period, the euro is trading at \$1.08. Had Markel estimated correctly, it could have made an extra \$1,500. Like most international firms, however, Markel does not try to make money on foreign-exchange trading. Its goal instead is to minimize its international currency risks and manage its cash flow.

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## Questions

**10-1.** How does Markel Corporation gain and lose from fluctuating exchange rates?

**10-2.** What is hedging? Why do firms that do international business engage in hedging?

**10-3.** What is a forward contract? How do such contracts help Markel?

**SOURCES:** Philip Alexander, "As Markets Deepen, Hedges Heighten," *Banker*, October 2011, Special Report, pp. 2–4; Barry Goss and Joost Pennings, "Reducing the Likelihood and Impact of Currency Crises," *The Banker*, January 2010, p. 8; Peter Bartram, "How to . . . Manage Foreign Exchange Currency Risk," *Director*, March 2015, p. 70; Markel Corporation, corporate website, [www.markelcorporation.com](http://www.markelcorporation.com), accessed March 9, 2018; Michael M. Phillips, "How a Small Firm Rides Foreign-Exchange Waves," *Wall Street Journal*, February 7, 2003, [www.wsj.com](http://www.wsj.com); Abdul Rashid and Shahid Waqar, "Exchange Rate Fluctuations, Firm Size, and Export Behavior: An Empirical Investigation," *Small Business Economics* 49, No. 3 (2017), pp. 609–625; Robert Wade, "The Perils of Cross-Border Payments," *World Trade*, June 2009, p. 8.

Markel, the firm in the opening case, pays close attention to *international financial management*. International financial management is the acquisition and use of funds for cross-border trade, investment, R&D, manufacturing, marketing, outsourcing, and other commercial activities. It is a complex but critical business function. Firms face various international financial challenges. These arise from globalization, integration of financial markets, rise of global e-commerce, global financial crises, and expanding opportunities to profit from financial activities.

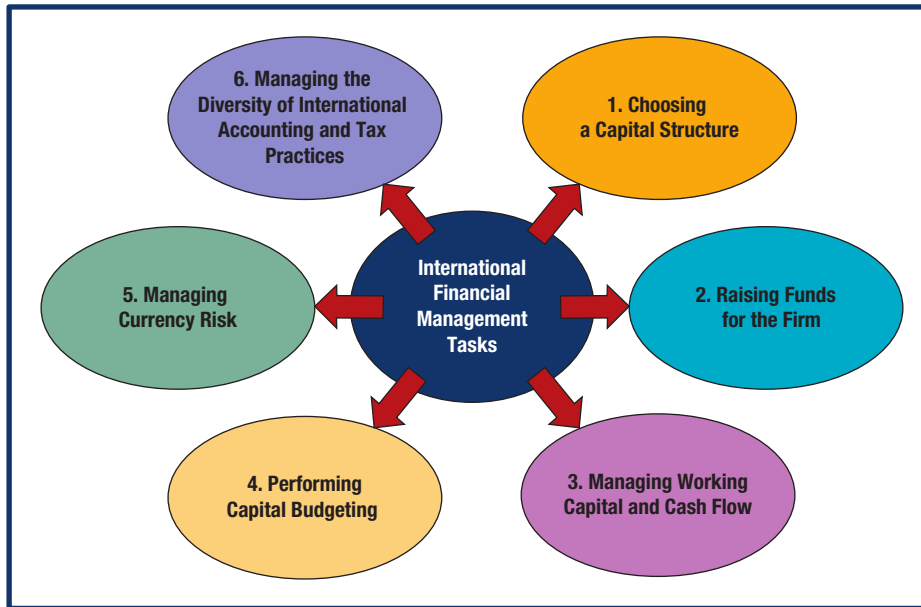
A key job of financial managers is to obtain funds from wherever in the world capital is least costly. Sources include investors in the world stock and bond markets, banks, and venture capital firms anywhere in the world. An additional source is *intra-corporate financing*: obtaining funds from within the MNE's operations worldwide. Managers' ability to minimize risk and seize opportunities depends on their financial management skills and their understanding of the regulations that govern financial systems worldwide.

## KEY TASKS IN INTERNATIONAL FINANCIAL MANAGEMENT

International financial management is challenging for large MNEs. Motorola ([www.motorola.com](http://www.motorola.com)) has facilities in nearly 50 countries. Its network of subsidiaries and strategic business units raises funds in financial markets worldwide. International financial managers at firms like Markel and Motorola acquire and allocate financial resources for the firm's current and future activities to help maximize company value. In this chapter, we examine six financial management tasks that are critical to MNE success. They are highlighted in Exhibit 10.1.

- *Choosing a capital structure.* Determine the ideal long-term mix of financing for the firm's international operations.
- *Raising funds for the firm.* Obtain financing for funding value-adding activities and investment projects. Financing might come from selling stocks, borrowing money, or using internally generated funds.
- *Managing working capital and cash flow.* Administer funds passing in and out of the firm's value-adding activities.
- *Performing capital budgeting.* Assess the financial attractiveness of major investment projects such as foreign expansion.
- *Managing currency risk.* Oversee transactions in various foreign currencies and manage risk exposure resulting from exchange-rate fluctuations.
- *Managing the diversity of international accounting and tax practices.* Learn to operate in a global environment with diverse accounting practices and international tax regimes.

Such tasks become especially relevant as the firm expands the scale of its international operations. Increasing global operations gives the firm strategic flexibility. Companies with extensive international operations benefit from increased opportunities to tap lower-cost capital, minimize taxes, and increase the efficiency of their financial operations. Let's delve into each of the six tasks.

**EXHIBIT 10.1****International Financial Management Tasks**

## Choosing a Capital Structure

A *capital structure* is the mix of long-term equity financing and debt financing that firms use to support their international activities. Capital structure affects the profitability and stability of the firm and its international operations. Companies obtain capital in two basic ways: by borrowing it or by selling shares of ownership in the firm. **Equity financing** is selling shares of stock to investors, which provides them with an ownership interest—that is, *equity*—in the firm. The firm can also retain earnings—that is, reinvest profit rather than paying it out as dividends to investors. In new companies, founders often provide equity financing from their personal savings. **Debt financing** comes from either of two sources: (a) loans from banks and other financial intermediaries or (b) the sale of corporate bonds to individuals or institutions.

Debt service payments—the periodic principal and interest payments to pay off a loan—are a fixed cost. Using debt financing can add value to the firm because some governments allow firms to deduct interest payments from their taxes. MNEs want to minimize the possibility of bankruptcy and maintain a good credit rating. Thus, most MNEs keep the debt proportion of their capital structure below a level that they can service even during tough times. Too much debt can force companies into financial distress and even bankruptcy.<sup>1</sup>

How much debt a firm should hold depends partly on the nature of its industry and its target markets. For example, an insurance company with relatively stable sales to wealthy foreign markets can keep a higher debt ratio than a consumer goods firm that sells mostly to poor countries with cyclical sales.

The riskiness of debt is perceived differently around the world. The average debt ratio in Germany, Italy, Japan, and numerous developing economies typically exceeds 50 percent. High reliance on debt financing can arise if a country lacks a well-developed stock market or other systems for obtaining capital from equity sources. Under such conditions, firms may have little choice but to borrow money from banks. In other nations, firms maintain close relationships with banks. In Japan, large MNEs are often part of a conglomerate or holding company that includes a bank. Sony Corporation has its own bank, Sony Bank.

## Raising Funds for the Firm

Lufthansa Airlines raised several hundred million euros by issuing stock shares to acquire A380 airplanes from Airbus. Grupo Mexico, a giant producer of copper and silver, issued millions of peso-denominated shares to pay expenses incurred by its foreign subsidiaries. Stanley Works, the U.S. toolmaker, funds part of its Japanese operations by selling shares on the Tokyo Stock Exchange.

**10.1** Understand how to choose a capital structure.

### Equity financing

The issuance of shares of stock to raise capital from investors and the use of retained earnings to reinvest in the firm.

### Debt financing

The borrowing of money from banks or other financial intermediaries or the sale of corporate bonds to individuals or institutions to raise capital.

**10.2** Understand how to raise funds for the firm.



### Global money market

The collective financial markets where firms and governments raise short-term financing.

### Global capital market

The collective financial markets where firms and governments raise intermediate and long-term financing.

Companies can obtain financing in the **global money market**, the collective of financial markets worldwide where firms and governments raise *short-term* financing. Alternatively, companies may obtain financing from the **global capital market**, the collective of financial markets worldwide where firms and governments raise *intermediate* and *long-term* financing. Because funding for most projects comes from instruments whose maturity period is longer than one year, we refer to all such funding as *capital*. In this chapter, we focus on the global capital market.

The great advantage for international investors of participating in the global capital market is the ability to access a wide range of investment opportunities. The benefit for corporations is the ability to access funds from a large pool of sources at a competitive cost. Access to capital is one of the main criteria that businesses consider when deciding to expand abroad.<sup>2</sup>

## Financial Centers

The global capital market is concentrated in major *financial centers*, such as New York, London, Tokyo and, increasingly, Hong Kong, Singapore, and Shanghai. At these locations, firms can access the major suppliers of capital through banks, stock exchanges, and venture capitalists. Exhibit 10.2 lists the proportion of major financial activity in Japan, the United States, major European countries, and the rest of the world. The United Kingdom, France, and Germany are home to the largest proportion of foreign-exchange trading (41 percent). The United States has the largest share of market capitalization of companies listed in its stock exchanges (40 percent). In the “rest of world” category, China is emerging as an important center of global finance, particularly in banking and equity finance.

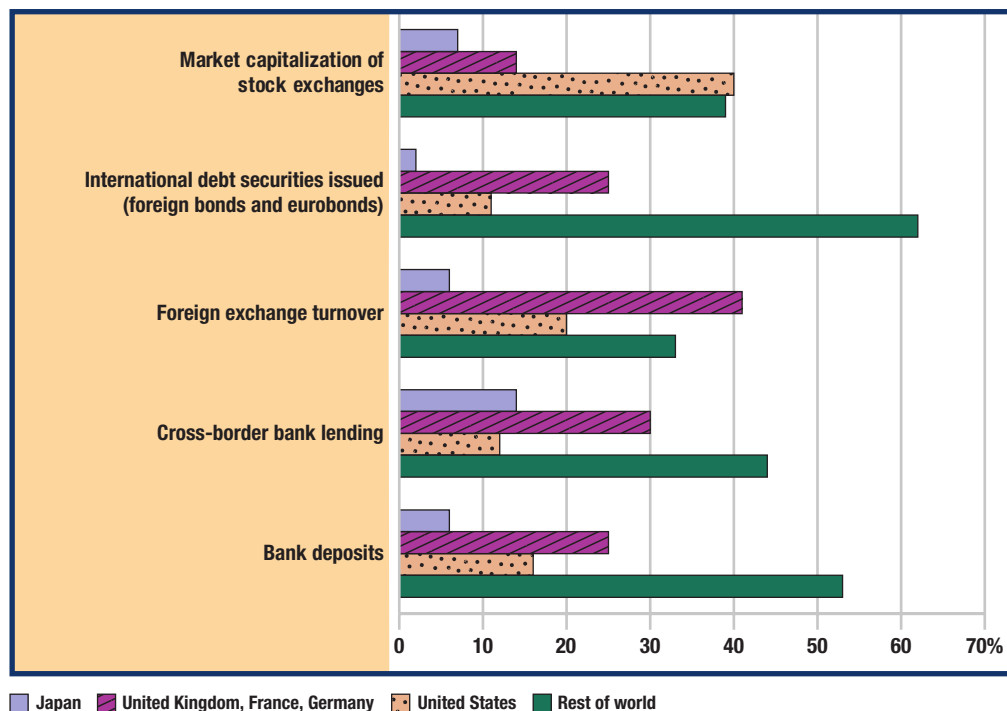
The global capital market is huge and growing rapidly. In 2018:

- The market capitalization of all the world’s stock markets exceeded \$87 trillion, up from about \$30 trillion in the year 2000.
- The total value of all bank loans and deposits worldwide exceeded \$58 trillion, up substantially from a decade earlier.
- Outstanding international bonds and notes accounted for more than \$23 trillion, up from about \$4.5 trillion in 2000.<sup>3</sup>

### EXHIBIT 10.2

#### Share of Financial Activity in Major World Regions (percent)

Sources: Based on *Statistics*, 2018, Bank for International Settlements, [www.bis.org](http://www.bis.org); World Bank, “Market Capitalization of Listed Domestic Companies,” 2017, <http://data.worldbank.org>.



### The global capital market has grown rapidly due to:

- *Government deregulation*, which has made international movement of capital easier.
- *Innovation in information and communication technologies*, which has increased the ease and speed of global financial transactions.
- *Globalization* of business and global competition, which pressures firms to seek cost-effective ways to finance international operations.
- Widespread *securitization* of financial instruments. This refers to an increased ability to convert traditional financial instruments (such as bank loans) into tradable securities (such as bonds). Such instruments have a ready market worldwide.

Some of the preceding factors contributed to the global financial crisis that began in 2007–2008. The crisis arose partially because of the large-scale availability of credit and easy movement of capital across national borders. As investors bought commodities and real estate, the prices of such assets became unrealistically high. Eventually investors realized that valuations in credit markets were too risky, so they sold assets on a massive scale. The total world value of financial assets (stocks, bonds, and loans) declined substantially but returned to earlier levels two years later in 2010.<sup>4</sup>

### The global capital market provides three key advantages to the firm:

- Broader base from which to draw funds to finance company operations.
- Ability to access funds at lower, competitive costs because of increased access to a larger pool of funding sources from around the world.
- Greater variety of investment opportunities for MNEs, professional investment firms, and individuals.

## Sources of Funds for International Operations

Firms obtain funds for their activities from three primary sources: equity financing, debt financing, and intra-corporate financing.

**EQUITY FINANCING** When the firm uses equity financing, it obtains capital by selling stock. Shareholders—those who buy the stock—gain a percentage of ownership in the firm and, often, a stream of dividend payments. The main advantage is that the firm obtains capital without debt. However, whenever new equity is sold, the firm's ownership is diluted. Management also risks losing control if one or more shareholders acquire a controlling interest. Internationally, companies obtain equity financing in the **global equity market**—stock exchanges worldwide where investors and firms meet to buy and sell shares of stock. Exhibit 10.3 lists the world's largest stock exchanges. Total global market capitalization now exceeds 75 trillion U.S. dollars. Historically, exchanges in Europe, Japan, and the United States dominated the list. More recently, exchanges in China have grown in size and influence. Among the roughly 2,400 firms listed on the New York Stock Exchange, about 487 are foreign-owned and represent 46 countries. Aside from the United States, countries with the most listed foreign companies are Canada (128 firms), China, (59 firms), and the United Kingdom (35 firms).<sup>5</sup>

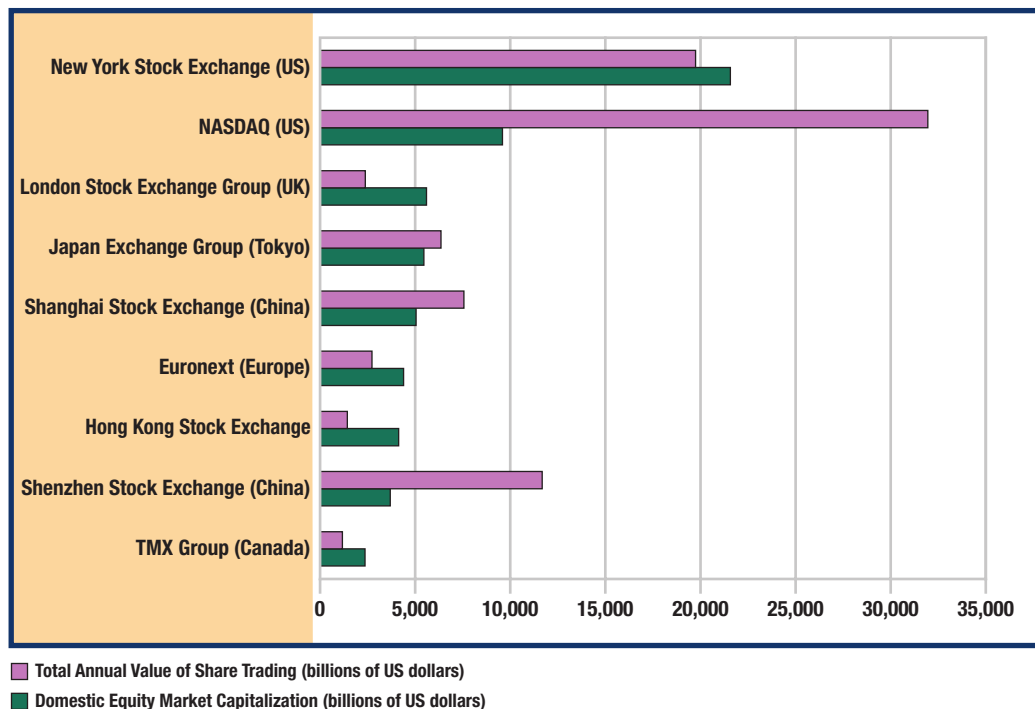
As an investor, you are not limited to buying stock on the stock exchanges of your home country. Many investors today buy stocks on foreign exchanges.<sup>6</sup> Investing in local stocks on foreign exchanges makes sense for two main reasons. First, it provides new opportunities for profitable investing. Second, it helps lessen losses during slumps in the home economy. For example, U.S. investors can buy stock from several hundred companies listed on the London exchange, including Kingfisher, Canon, and South African Breweries. Thanks to the Internet, investors now trade on world stock markets at low cost. Foreign investors can increasingly access stock markets

### Global equity market

The worldwide market of funds for equity financing—stock exchanges around the world where investors and firms meet to buy and sell shares of stock.

**EXHIBIT 10.3****Largest Stock Exchanges in the World (in billions of U.S. dollars)**

Sources: Based on World Federation of Exchanges, 2017 *WFE Annual Statistics Guide*, [www.world-exchanges.org](http://www.world-exchanges.org) and data from individual stock exchanges.



in China. Even a small market such as the Cayman Islands Stock Exchange ([www.csx.com.ky](http://www.csx.com.ky)) offers full online investing opportunities.<sup>7</sup>

Pension funds, which invest employee savings for retirement, represent the largest segment of international investing. The total value of private pension funds worldwide exceeds \$25 trillion, substantially more than the GDP of the United States.<sup>8</sup>

**DEBT FINANCING** In international business, debt financing consists mainly of international loans and the eurocurrency market as well as domestic and foreign bonds. We review these next.

**International Loans** Exhibit 10.4 shows the world's primary banking centers. China gained much momentum as a world banking center in the past decade and is now the world leader in total bank assets. The country's dominant position arose as the Chinese government undertook aggressive monetary and fiscal stimulus, which triggered substantial growth in lending by Chinese banks.<sup>9</sup> In general, a firm can borrow from banks in its home market or in foreign markets. Borrowing internationally is complicated. Challenges include differences in national banking regulations, poor banking infrastructure, capital shortages, economic problems, and fluctuating currency values.<sup>10</sup> Banks are often reluctant to extend credit to small and medium-sized enterprises (SMEs). Such firms may turn to government agencies such as the Export Import (Ex-IM) Bank ([www.exim.gov](http://www.exim.gov)) in the United States, a federal agency for loans and loan guarantees. Governments in the developing world often provide loans to promote inward direct investment projects such as the construction of dams, power plants, and airports. Many subsidiaries of large MNEs obtain loans from their parent firm or a sister subsidiary.

**The Eurocurrency Market** Another key source of loanable funds is money deposited in banks outside a firm's country of origin. **Eurodollars** are U.S. dollars held in banks outside the United States, including foreign branches of U.S. banks. Thus, a U.S. dollar-denominated bank deposit in Barclays bank in London or in Mizuho Bank in Tokyo is a Eurodollar deposit. More broadly, any currency deposited in a bank outside its origin country is called **eurocurrency**. In addition to the U.S. dollar, the other main eurocurrencies are the European euro, the British pound, and the Japanese yen. The four main Eurocurrencies are the U.S. dollar, the euro, the British pound and the Japanese yen.<sup>11</sup> As much as two-thirds of U.S. banknotes are held outside the United States as a reserve currency.

**Eurodollars**

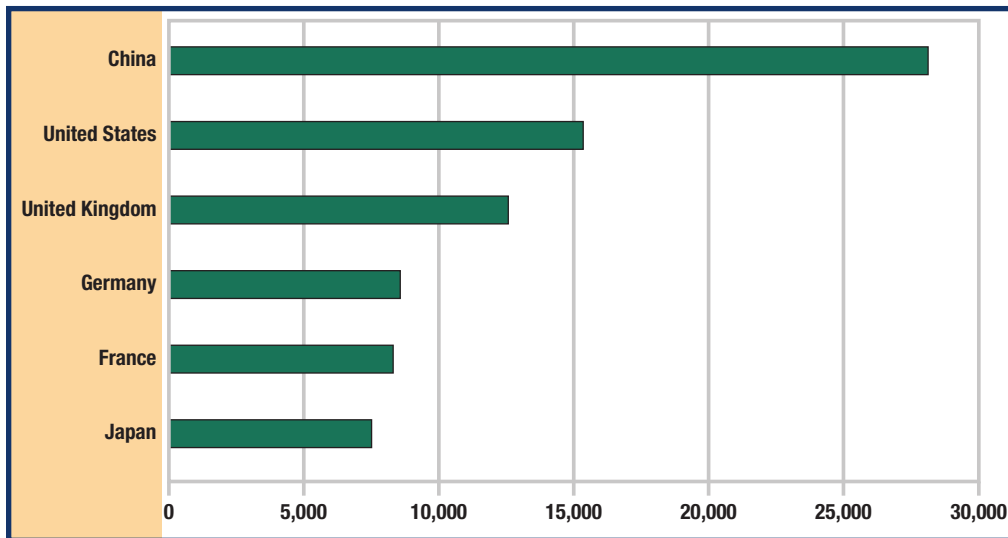
U.S. dollars held in banks outside the United States, including foreign branches of U.S. banks.

**Eurocurrency**

Any currency deposited in a bank outside its country of origin.

**Bond**

A debt instrument that enables the issuer (the borrower) to raise capital by promising to repay the principal on a specified date (at maturity) along with periodic interest payments.

**EXHIBIT 10.4****World's Primary Banking Centers, 2017 (total assets of commercial banks, in billions of U.S. dollars)**

Sources: Based on Bank for International Settlements, *Statistics*, 2018, [www.bis.org](http://www.bis.org); KPMG, *Mainland China Banking Survey 2017*, [www.kpmg.com](http://www.kpmg.com); Z/Yen, *The Global Financial Centres Index 22*, September 2017, [www.longfinance.net](http://www.longfinance.net).

Hitachi, Matsushita, and many other Japanese firms borrowed eurodollars in Japan to help finance their operations worldwide. U.S. companies sometimes borrow euros or yen deposited in the United States to finance their activities. The eurocurrency market is attractive to firms because these funds are not subject to the government regulations of their home-country banking systems. U.S. dollars in French banks and euros in U.S. banks are free of the reserve requirements of their home countries. Banks typically offer higher interest rates on eurocurrency deposits and charge lower interest rates for eurocurrency loans. This has contributed to the emergence of a huge Eurocurrency market.

**Bonds** A major source of debt financing is bonds. A **bond** is a debt instrument that enables the issuer (the borrower) to raise capital by promising to repay the principal on a specified date (at maturity) along with periodic interest payments. Firms, governments, states, and other institutions all sell bonds. Investors buy bonds and redeem them at face value in the future. The **global bond market** is the international marketplace in which bonds are bought and sold, mainly through bond brokers.

**Foreign bonds** are sold outside the bond issuer's country in the currency of the country where issued. When Mexican cement giant Cemex sells dollar-denominated bonds in the United States, it is issuing foreign bonds. **Eurobonds** are sold outside the bond issuer's home country but denominated in its own currency. When Toyota sells yen-denominated bonds in the United States, it is issuing Eurobonds. The telecommunications giant AT&T has issued hundreds of millions of dollars in Eurobonds to support its international operations. Recently, Ryanair airlines issued Eurobonds worth €750 million to finance operations. Express carrier FedEx issued a Eurobond for €3 billion to finance acquisition of another carrier. Eurobonds are typically issued in denominations of \$5,000 or \$10,000, pay interest annually, and are sold in major financial centers.<sup>12</sup>

**Intra-corporate Financing** Firms also obtain funding for international operations from within their network

**Global bond market**

The international marketplace in which bonds are bought and sold, primarily through bond brokers.

**Foreign bond**

A bond sold outside the issuer's country and denominated in the currency of the country where issued.

**Eurobond**

A bond sold outside the issuer's home country but denominated in its own currency.



Source: Elijah Lovkoff/123rf

Eurocurrencies are funds banked outside their country of origin and represent a key source of capital for international business. Pictured is one of the world's leading financial centers, Toronto.



### Intra-corporate financing

Funds from sources inside the firm (both headquarters and subsidiaries) such as equity, loans, and trade credits.

of subsidiaries and affiliates. At times, when some units of an MNE are cash-rich and others are cash-poor, they can lend each other money. **Intra-corporate financing** refers to funds from sources inside the firm (both headquarters and subsidiaries) in the form of equity, loans, and trade credits. Trade credit arises in the firm when a supplier unit grants a buyer unit the option to pay at a later date.

#### Loaning funds to the firm's own foreign subsidiaries provides several advantages.

- Saves bank transaction costs, such as fees charged to exchange foreign currencies and transfer funds between locations.
- Eliminates possible costly effects to the parent's balance sheet because the funds are simply transferred from one area of the firm to another.
- Avoids the ownership dilution of equity financing.
- Can reduce the borrowing subsidiary's income tax burden because interest payments are often tax deductible.

IBM's global financing division invests in international financing assets and obtains and manages international debt to support IBM's global operations. The division provides loan financing to internal users for terms of two to five years. It provides inventory and accounts receivable financing to IBM's dealers and subsidiaries in various countries.<sup>13</sup>

**10.3** Explain how to manage working capital and cash flow.

## Managing Working Capital and Cash Flow

*Working capital* refers to the current assets of a company. *Net working capital* is the difference between current assets and current liabilities. As part of working capital management, firms manage all current accounts, such as cash, accounts receivable, inventory, and accounts payable. Cash comes from various sources, especially sales of goods and services. In the MNE, an important task of working capital management is ensuring that cash is available where and when needed. Cash-flow needs arise from everyday company activities, such as paying for labor and materials or paying taxes and interest on debt. To optimize global operations, international financial managers develop strategies to transfer funds among the firm's operations worldwide.

The volume and complexity of intra-corporate transfers depend on the number of headquarters, subsidiaries, alliances, and business relationships the firm maintains worldwide. For companies with extensive international operations, the network of funds transfers can be vast. Roughly one-third of world trade results from collective trading activities within individual MNE networks.

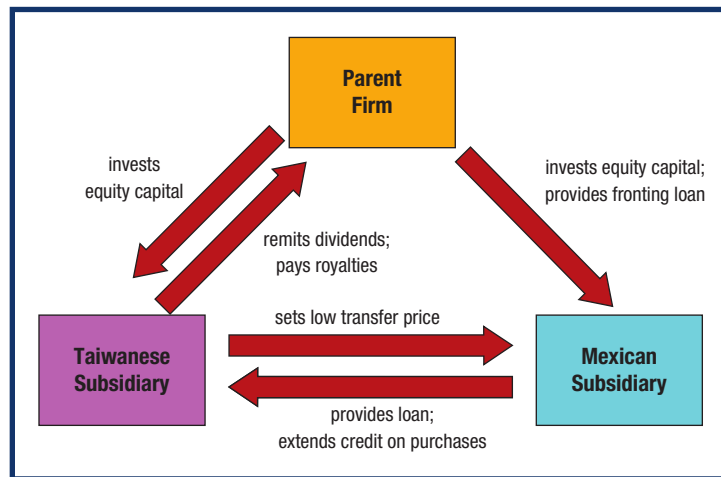
### Methods for Transferring Funds Within the MNE

Financial managers employ various methods for transferring funds within the MNE. Funds must be moved efficiently, both to lessen transaction costs and tax liabilities and to increase returns that the funds can earn. Exhibit 10.5 depicts a typical company with subsidiaries in Mexico and Taiwan. Within its network, this firm can transfer funds through trade credit, dividend remittances, royalty payments, fronting loans, transfer pricing, and multilateral netting. Here is how each works:

- Through *trade credit*, a subsidiary can defer payment for goods and services received from the parent firm. The 30-day credit is the U.S. norm, whereas 90-day credit is typical in Europe, with longer terms elsewhere.
- *Dividend remittances* are common for transferring funds from foreign subsidiaries to the parent but vary depending on tax levels and currency risks. Some host governments levy high taxes on dividend payments or limit how much MNEs can remit.
- *Royalty payments* are compensation paid to owners of intellectual property. Assuming the subsidiary has licensed technology, trademarks, or other assets from the parent or other subsidiaries, royalties can be an efficient way to transfer funds and are tax deductible in many countries. A parent MNE can collect royalties from its own subsidiaries as a way of generating funds.
- In a **fronting loan**, the parent deposits a large sum in a foreign bank, which transfers it to a subsidiary as a loan. Fronting allows the parent to circumvent restrictions that foreign governments impose on direct intra-corporate loans. Although some countries restrict the amount of funds MNEs can transfer abroad, such restrictions usually do not apply to repayment of bank loans.

### Fronting loan

A loan between the parent and its subsidiary, channeled through a large bank or other financial intermediary.

**EXHIBIT 10.5****Typical Methods for Transferring Funds Within the MNE**

- **Transfer pricing** (also known as *intra-corporate pricing*) is the price that subsidiaries and affiliates of the same corporate family charge each other as they buy and sell intermediate or finished products within the firm. For example, when Daimler USA sells truck parts to a Daimler plant in Germany, it charges a price, the transfer price. Firms can use transfer pricing to shift profits from high-tax to low-tax countries, improving internal cash flows.<sup>14</sup>

**Multilateral Netting**

In the past, cash was frequently held in each foreign subsidiary responsible for funding its own short-term needs. Today, MNE managers use a method known as *pooling* to bring surplus funds together in a regional or global *centralized depository*. They then direct these funds to needy subsidiaries or invest them to produce income.

Managers invest the funds from the centralized depository to produce maximal returns. If the depository is in a financial center (such as London, New York, or Sydney), management can also access various short-term investments that pay higher rates of return. Such depositories tend to centralize expertise and financial services, which benefits subsidiaries at lower cost.

Large MNEs conduct many international transactions, each of which creates transaction costs. Suppose a firm's Japanese subsidiary owes the Spanish subsidiary \$8 million and the Spanish subsidiary owes the Japanese subsidiary \$5 million. Although the firm could cancel these debts in separate transactions, a more intelligent solution that reduces transaction costs has the Japanese subsidiary pay the Spanish subsidiary \$3 million. Transferring an amount considerably lower than either of the two original amounts reduces transactions costs such as fees and delays in funds transfers.

At a more sophisticated level, **multilateral netting** is the strategic reduction of cash transfers within the MNE family through the elimination of offsetting cash flows. It usually involves three or more subsidiaries that hold accounts payable or accounts receivable with another subsidiary. MNEs with many subsidiaries usually establish a netting center, a central exchange, that headquarters supervises. The Dutch consumer electronics firm Philips ([www.philips.com](http://www.philips.com)) has operating units in sixty countries. It maintains a netting center to which subsidiaries regularly report all intra-corporate balances on the same date. The center then advises each subsidiary of the amounts to pay and receive from other subsidiaries on a specified date. This helps Philips save money.

**Multilateral netting**

Strategic reduction of cash transfers within the MNE family through the elimination of offsetting cash flows.

**Performing Capital Budgeting**

How do companies decide whether to launch a major exporting effort, acquire a distribution center, build a new factory, or refurbish industrial equipment? Firms have limited resources and cannot afford to invest in every project opportunity. The purpose of *capital budgeting* is to help managers decide which international projects provide the best financial return.

**10.4** Describe how to perform capital budgeting.



Source: boule13/123RF

Dubai, in the United Arab Emirates, is home to subsidiaries of numerous multinational firms, including Google and Sky News. Managers use capital budgeting to decide which foreign locations are best for setting up operations.

The decision depends on the project's initial investment requirement, its cost of capital, and the incremental cash flow or other advantages it can provide. Many variables affect the potential profitability of a venture. Investors in the fast-food industry consider the cost of alternate locations and the level of local competition as well as the distance to highways, availability of public transportation, and amount of traffic at each location.<sup>15</sup>

### Net Present Value Analysis of Capital Investment Projects

Managers typically perform net present value (NPV) analysis to evaluate domestic and international capital investment projects. NPV is the difference between the present value of a project's incremental cash flows and its initial investment requirement.<sup>16</sup> A positive NPV indicates that the projected earnings of the proposed project will be greater than the expected costs (in present dollars or other currency). Projects with a positive NPV usually will be profitable and add value to the company.

Managers can use NPV in two ways. One is to estimate the incremental after-tax operating cash flows in the subsidiary's local currency and then discount them at the project's cost of capital. The cost of capital is expressed as a percentage and is usually the required internal rate of return (IRR) appropriate for the project's level of risk. If the NPV is positive, the project is expected to earn more than its required internal rate of return and add value to the company. This approach takes the *project's perspective* in capital budgeting, and managers can use it as a first screening method.<sup>17</sup>

The second approach, called the *parent's perspective*, estimates future cash flows from the project in the *functional currency* of the parent—that is, the currency of the primary economic environment in which it operates. Thus, U.S.-based firms' functional currency is the U.S. dollar; for Japan-based firms, it is the yen. This approach uses forecasts of future *spot exchange rates* and converts the local currency cash flows to the functional currency at those rates. It then calculates the present value using a discount rate in line with the required return on projects of similar risk. Managers then compute the NPV in the parent's functional currency by subtracting the initial investment cash flow from the present value of the project cash flows. To be acceptable, the project must add value to the parent company. It must have positive NPV from the parent's perspective.

Estimating project cash flows is complex and requires forecasting a range of variables that contribute to anticipated revenues and costs over several years. The largest component of revenue is usually sales. Initial and ongoing costs typically include R&D, development of essential project resources, labor, factor inputs, and marketing.

#### Capital budgeting in the MNE is complicated by four factors:

- Project cash flows are usually in a currency other than the reporting currency of the parent firm.
- Tax rules in the project location and the parent's country usually differ.
- Governments may restrict the transfer of funds from the project to the parent firm.
- The project may be exposed to country risk, such as government intervention or adverse economic conditions.

## Managing Currency Risk

Shifting currency values are among the biggest day-to-day challenges facing international firms, like Markel in the chapter's opening case. Foreign direct investors face currency risk because they receive payments and incur obligations in foreign currencies. Managers of foreign investment portfolios also face currency risk. A Japanese stock might gain 15 percent in value, but if the yen falls 15 percent, the stock gain is zero.<sup>18</sup>

Currency crises affect other local asset prices, including debt, equipment, and real estate markets. Firms face currency risk when their cash flows and the value of their assets and liabilities change due to unexpected changes in foreign-exchange rates. Exporters and licensors face currency risk—from unexpected fluctuations in exchange rates—because foreign buyers typically pay in their own currency. If the firm could quote its prices and get paid in its home-country currency, it could eliminate its currency risk, but the risk would still exist for its foreign customers. To please foreign buyers, companies frequently quote their prices in the buyer's currency. In international transactions, either the buyer or the seller incurs currency risk.

### Three Types of Currency Exposure

Currency fluctuations result in three types of exposure for the firm: transaction exposure, translation exposure, and economic exposure.<sup>19</sup>

**Transaction exposure** is currency risk that firms face when outstanding accounts receivable or payable are denominated in foreign currencies. Suppose Dell imports 3 million Taiwan dollars' worth of computer keyboards and pays in the foreign currency. At the time of the purchase, suppose the exchange rate was US\$1 = T\$30, but Dell pays on credit terms three months after the purchase. If during the three-month period the exchange rate shifts to US\$1 = T\$27, Dell will have to pay an extra US\$11,111 as a result of the rate change ( $[3,000,000/27] - [3,000,000/30]$ ). From Dell's standpoint, the Taiwan dollar has become more expensive. Such gains or losses are real. They affect the firm's value directly by affecting its cash flows and profit.

**Translation exposure** results when an MNE translates financial statements denominated in a foreign currency into the functional currency of the parent firm as part of *consolidating* international financial results. **Consolidation** is the process of combining and integrating the financial results of foreign subsidiaries into the parent firm's financial records. Accounting practices usually require the firm to report consolidated financial results in the functional currency.

Translation exposure occurs because, as exchange rates fluctuate, so do the functional-currency values of exposed assets, liabilities, expenses, and revenues. Translating quarterly or annual foreign financial statements into the parent's functional currency results in gains or losses on the date financial statements are consolidated. When translated into dollars, the quarterly net income of the Japanese subsidiary of a U.S. MNE may drop if the Japanese yen depreciates against the dollar during the quarter. Note that gains or losses in translation exposure are paper, or virtual, changes and do not affect cash flows directly. This contrasts with transaction exposure, in which gains and losses are real.

**Economic exposure** (also known as *operating exposure*) results from exchange-rate fluctuations that affect the pricing of products and inputs and the value of foreign investments. Exchange-rate fluctuations help or hurt sales by making the firm's products relatively more or less expensive for foreign buyers. If the yen appreciates against the euro, a European firm can expect to sell more goods in Japan because the Japanese have more buying power for buying euros. But if the yen weakens against the euro, the European firm's sales will likely drop in Japan unless management lowers its Japanese prices by an amount equivalent to the fall in the yen. Similarly, the firm may be harmed by currency shifts that raise the price of inputs sourced from abroad. The value of foreign investments can also fall, in home currency terms, with exchange-rate changes.

Transaction exposure affects ongoing contractual transactions. By contrast, economic exposure affects long-term profitability through changes in revenues and expenses. Such effects are reflected in the firm's financial statements. For example, strengthening of the U.S. dollar against the euro gradually increases the value of U.S. investments in Europe and decreases the cost of euro-denominated input goods. But it also weakens prospects for U.S. firms to sell their dollar-denominated products in the EU.

The three types of currency exposure can produce positive results when exchange rates fluctuate favorably for the firm. Managers are more concerned with fluctuations that harm the firm.

**10.5** Explain how to manage currency risk.

#### Transaction exposure

The currency risk that firms face when outstanding accounts receivable or payable are denominated in foreign currencies.

#### Translation exposure

The currency risk that results when a firm translates financial statements denominated in a foreign currency into the functional currency of the parent firm as part of consolidating international financial results.

#### Consolidation

The process of combining and integrating the financial results of foreign subsidiaries into the financial statements of the parent firm.

#### Economic exposure

The currency risk that results from exchange-rate fluctuations affecting the pricing of products, the cost of inputs, and the value of foreign investments.





Source: Rawpixel.com/Shutterstock

Multinational firms must skillfully manage multiple currency transactions and the risk associated with exchange rate fluctuations.

### Spot rate

The exchange rate applied when the current exchange rate is used for immediate receipt of a currency.

### Forward rate

The exchange rate applicable to the collection or delivery of a foreign currency at some future date.

### Direct quote

The number of units of domestic currency needed to acquire one unit of foreign currency; also known as the normal quote.

### Indirect quote

The number of units of foreign currency obtained for one unit of domestic currency.

### Hedgers

Currency traders who seek to minimize their risk of exchange-rate fluctuations, often by entering into forward contracts or similar financial instruments.

Such problems help explain why many countries in Europe use a single currency, the euro. With a single medium of exchange, currency risk is eliminated in trade among the countries using the euro. For international firms operating outside the euro zone, however, currency risk is still a significant problem.

## Foreign-Exchange Trading

A relatively small number of currencies facilitate cross-border trade and investment. Around 64 percent of allocated foreign reserves are in U.S. dollars, 20 percent are in euros, 4 percent are in each of British pounds and Japanese yen, and 8 percent are in the world's remaining national currencies.<sup>20</sup> The volume of currencies exchanged is huge. The volume of global trading in foreign exchange amounts to \$5 trillion per day, depending on the level of cross-national economic activity.<sup>21</sup> To put this in perspective, that is nearly 100 times the daily value of global trade in products and services.

Information technology is critical to currency trading. For example, the Swiss investment bank UBS ([www.ubs.com](http://www.ubs.com)) offers a range of currency-related products. Customers transact nearly all their spot, forward, and currency-swap trades online using UBS's computer platforms in dozens of countries.<sup>22</sup> Citibank ([www.citibank.com](http://www.citibank.com)) leverages its comprehensive customer portal, CitiFX, to provide clients a wide range of services, including library research, currency trading, and analytical tools.<sup>23</sup>

Large commercial banks and financial institutions—for example, Citi, UBS, Deutsche Bank, Barclays, Goldman Sachs, HSBC—are the main dealers in currency markets. They quote the prices at which they will buy or sell currencies. If an importer wants to exchange \$100,000 for euros to finance a purchase from Austria, the currency exchange typically will be handled through the importer's bank. Large commercial banks such as Barclays and Citibank maintain reserves of major currencies and work with foreign *correspondent banks* to facilitate currency buying and selling. Currency transactions between banks occur in the *interbank market*.

Currency also can be bought and sold through brokers that specialize in matching up buyers and sellers. They are especially active in major financial centers such as London, New York, and Sydney. Trading can also be done through online brokers and dealers at sites such as [www.forex.com](http://www.forex.com) and [www.everbank.com](http://www.everbank.com).

The foreign-exchange market uses specialized terminology to describe the functions that currency dealers perform. The **spot rate** is the exchange rate applied when the current exchange rate is used for immediate receipt of a currency. The rate applies to transactions between banks for delivery within two business days or for immediate delivery for over-the-counter transactions involving nonbank customers—for example, when you buy currencies at airport kiosks.

The **forward rate** is the exchange rate applicable to the collection or delivery of foreign currencies at some future date. Dealers in the forward exchange market promise to receive or deliver foreign exchange at a specified time in the future but at a rate determined at the time of the transaction. The primary function of the forward market is to provide protection against currency risk.

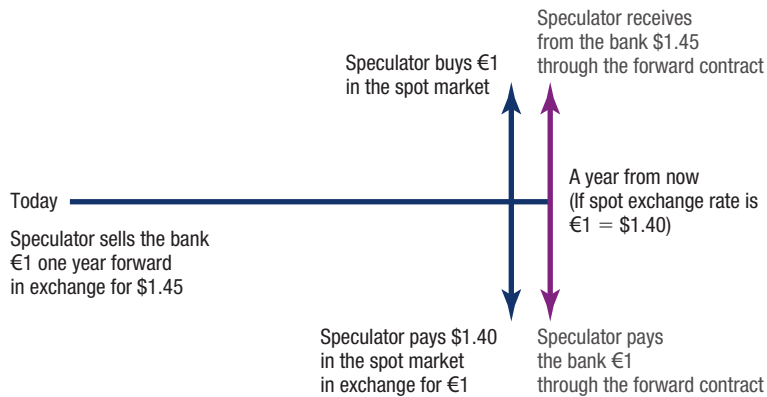
Dealers quote currency exchange rates in two ways. The **direct quote**, also known as the *normal quote*, is the number of units of domestic currency needed to acquire one unit of foreign currency. For example, on March 17, 2018, it cost US\$1.23 to acquire one euro (abbreviated as €). The **indirect quote** is the number of units of foreign currency obtained for one unit of domestic currency. For example, on March 17, 2018, it cost €0.81 to acquire \$1.00. Please review this chapter's appendix to learn more about currency trading.

You may have observed at airports that when foreign-exchange dealers quote prices, they always quote a *bid* (buy) rate and an *offer* (sell) rate at which they will buy or sell any particular currency. The difference between the bid and offer rates—the *spread*—is the margin on which the dealer earns a profit.

## Types of Currency Traders

Hedgers, speculators, and arbitrageurs represent the three main types of currency traders. **Hedgers**, typically MNEs and other international trade or investment firms, seek to minimize their risk of exchange-rate fluctuations, often by entering into forward contracts or similar financial instruments. They are not necessarily interested in profiting from currency trading.

Scenario: A speculator is offered a forward contract by a bank to be able to sell the bank €1 in exchange for \$1.45 one year from now. Suppose that the speculator expects the spot exchange rate to be €1 = \$1.40 a year from now. The speculator may try to profit from the difference between the expected spot exchange rate and the quoted forward exchange rate by entering into a forward contract with the offering bank. In this case, the speculator is taking a risk by attempting to make a profit based on an uncertain future spot exchange rate.



Outcome: If the spot exchange rate is actually €1 = \$1.40 a year from now, the speculator earns a profit of \$0.05. However, if the spot exchange rate turns out to be €1 = \$1.50, the speculator will lose \$0.05 as a result of having to sell the bank, through the forward contract, €1 for \$1.45 instead of its actual spot value of \$1.50.

## EXHIBIT 10.6

### An Example of Speculation in the Foreign-Exchange Market

**Speculators** are currency traders who seek profits by investing in currencies with the expectation that their value will change in the future and then sell them later at the different value. A speculator might purchase a certificate of deposit denominated in Mexican pesos or a money market account tied to the Chinese yuan, believing the value of these currencies will rise. The speculator can also bet on a currency's downturn by taking a *short position* in that currency. When investors take a short position, they sell a currency that they previously borrowed from a third party (usually a broker) with the intention of buying the identical currency back at a later date to return to the lender. In so doing, the short seller hopes to profit from a decline in the value of the currency between the sale and the repurchase because the seller will pay less to buy the currency than the seller received on selling it. Exhibit 10.6 shows a sample speculation in the foreign-exchange market through a forward contract.

**Arbitrageurs** are currency traders who buy and sell the same currency in two or more foreign-exchange markets to profit from differences in the currency's exchange rate. But unlike the speculator who bets on the future price of a currency, the arbitrageur attempts to profit from a current disequilibrium in currency markets based on known prices. If the euro-dollar exchange rate quoted in New York on Monday morning is €1 = \$1.25 but the quoted exchange rate in London at that moment is €1 = \$1.30, a trader could buy €1 million for \$1.25 million in New York and simultaneously sell those euros in London for \$1.3 million, yielding a riskless profit of \$50,000 before commission and expenses. But don't get too excited! When such arbitrage opportunities exist, they quickly disappear because the very actions of the arbitrageurs force the exchange rates to adjust to the equilibrium level.

## Exchange-Rate Forecasting

Losses due to exchange-rate risk are common in international business. Colgate-Palmolive is a U.S. company that makes toothpaste, soap, and other consumer products and generates more than 80 percent of its sales in foreign markets. The dollar's appreciation against the Brazilian real, the euro, and other world currencies in 2016 hurt Colgate-Palmolive's sales. Procter & Gamble, Apple, Honeywell, and other U.S. multinationals experienced similar declines in international sales due to the stronger dollar. Such firms raise prices in global markets to offset losses caused by the dollar's rise. However, higher prices reduce the attractiveness of U.S. products to consumers outside the United States. Many U.S. firms have relocated some of their manufacturing to major foreign markets in order to avoid exporting the goods. The strategy reduces U.S. firms' vulnerability to harmful currency fluctuations.<sup>24</sup>

### Speculators

Currency traders who seek profits by investing in currencies with the expectation that their value will change in the future and then sell them at the different value.

### Arbitrageurs

Currency traders who buy and sell the same currency in two or more foreign-exchange markets to profit from differences in the currency's exchange rate.

Financial managers monitor currency trading daily. They are especially alert for news and developments that affect currency values. In 2016, companies withdrew billions of dollars of investments from Russia due to concerns about political risk, economic woes, and corruption. As foreign investors sold off holdings from the stock exchange and other markets in Russia, they converted huge sums of Russian roubles into foreign currencies. The event followed substantial depreciation of the rouble.<sup>25</sup> In most countries, exchange rates respond immediately to economic information, such as the election of a new government and labor disputes. Major *supply shocks* also affect exchange rates, as when oil-exporting countries suddenly announce a decrease in the supply of oil. In addition to forecasting such events, managers must assess the likely actions of foreign-exchange traders.

Firms with extensive international operations develop capabilities to forecast exchange rates that combine in-house forecasting with reports provided by major banks and professional forecasters. *Technical analysis* looks at recent movements in exchange rates, *fundamental analysis* studies macroeconomic data, and *market-based forecasting* uses forward rates to predict future spot rates.

SMEs usually lack the resources to do substantial in-house forecasting and rely on forecasts from banks and business news sources. A table in each issue of the *Economist* magazine describes recent exchange-rate trends. Other useful information sources include the Bank for International Settlements ([www.bis.org](http://www.bis.org)), the World Bank ([www.worldbank.org](http://www.worldbank.org)), and the European Central Bank ([www.ecb.int](http://www.ecb.int)).

### Managing Exposure to Currency Risk Through Hedging

Suppose you want to buy a Toyota and the local car dealer insists that you must pay in Japanese yen. You probably wouldn't buy the car, partly because you'd need to acquire yen and partly because other dealers let you pay in your own currency. Customers around the world prefer to deal in their own currency. If firms insist on quoting prices and getting paid in their own currency, the burden is on foreign buyers to monitor and manage foreign exchange. Even small exporters learn to operate in foreign currencies to remain competitive. In so doing, they also learn to minimize their exposure to currency risk.

The most common method for managing exposure is **hedging**. It refers to the use of financial instruments and other measures to lock in guaranteed foreign-exchange positions. If the hedge is perfect, the firm is protected against the risk of adverse changes in the price of a currency. Banks offer forward contracts, options, and swap agreements to facilitate hedging. Banks charge fees and interest payments on amounts borrowed to carry out the transactions. The firm must balance these costs against expected benefits.

In *passive hedging*, each exposure is hedged as it occurs and the hedge stays in place until maturity. In *active hedging*, the firm frequently reviews total exposure and hedges only a subset of its total exposures, especially those that pose the greatest risk. Hedges may be withdrawn before they reach maturity. Some active hedgers seek to profit from hedging, even maintaining active in-house trading desks. However, most firms are conservative and simply try to cover all exposures—or their most important ones—and leave hedges in place until maturity.

### Hedging Instruments

Having assessed its level of currency risk exposure, the firm attempts to balance exposed assets and exposed liabilities. The four most common hedging instruments are forward contracts, futures contracts, currency options, and currency swaps.

A **forward contract** is an agreement to exchange two currencies at a specified exchange rate on a set future date. No money changes hands until the delivery date of the contract. Banks quote forward prices in the same way as spot prices—with bid and ask prices at which they will buy or sell currencies. The bank's bid-ask spread is a cost for its customers.

Forward contracts are especially appropriate for hedging transaction exposure. Suppose Dow Chemical ([www.dow.com](http://www.dow.com)) sells merchandise to a German importer for €100,000, payable in 90 days. During the 90 days, Dow has a transaction exposure to currency risk. It will receive fewer dollars if the euro depreciates during that time. To hedge against this risk, Dow executes a forward contract with a bank to sell €100,000 in 90 days at an exchange rate agreed upon today. This ensures that Dow will receive a known dollar amount in the future. Exhibit 10.7 illustrates the cash flows of Dow Chemical's forward market hedge.

Like a forward contract, a **futures contract** represents an agreement to buy or sell a currency in exchange for another at a specified price on a specified date. Unlike forward contracts,

#### Hedging

Using financial instruments and other measures to reduce or eliminate exposure to currency risk by locking in guaranteed foreign-exchange positions.

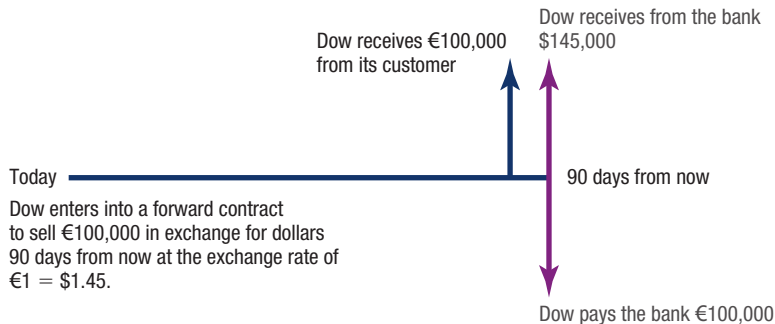
#### Forward contract

A contract to exchange two currencies at a specified exchange rate on a set future date.

#### Futures contract

An agreement to buy or sell a currency in exchange for another at a specified price on a specified date.

Scenario: Dow Chemical sells merchandise to a German importer for €100,000, payable in 90 days. Given that the U.S. dollar - euro spot exchange rate 90 days from now is not known today, Dow faces uncertainty regarding how much it will be receiving from its German customer in U.S. dollar terms. To hedge against this risk, Dow enters into a forward contract with a bank to sell €100,000 90 days from now at an exchange rate of €1 = \$1.45 agreed upon today, ensuring that it receives a known dollar amount in future.



Outcome: Today, Dow is able to see that the €100,000 it will be receiving from its European customer will be worth \$145,000 regardless of how much the actual spot price of the euro is 90 days from now.

### EXHIBIT 10.7

#### An Example of Hedging in the Foreign-Exchange Market

futures contracts are standardized to enable trading in organized exchanges, such as the Chicago Mercantile Exchange. Although the terms of forward contracts are negotiated between a bank and its customer, futures contracts have standard amounts and maturity periods. Futures contracts are especially useful for hedging transaction exposure.

A **currency option** gives the purchaser the right, but not the obligation, to buy (sell) a certain amount of foreign currency at a set exchange rate within a specified length of time. The seller of the option must sell (buy) the currency at a time specified by the option buyer at the price originally set. Currency options typically are traded on organized exchanges, such as the International Securities Exchange ([www.ise.com](http://www.ise.com)) and the Philadelphia Stock Exchange (PHLX; [www.nasdaqtrader.com](http://www.nasdaqtrader.com)), and only for major currencies.<sup>26</sup>

There are two types of options. A *call option* is the right, but not the obligation, to buy a currency at a specified price within a specific period (called an *American option*) or on a specific date (called a *European option*).<sup>27</sup> A *put option* is the right to sell the currency at a specified price. Each option is for a specific amount of currency. Options are useful as an insurance policy or disaster hedge against harmful currency movements.

In a **currency swap**, two parties agree to exchange a given amount of one currency for another and, after a specified period of time, give back the original amounts. Thus, a swap is a simultaneous spot and forward transaction. When the agreement is activated, the parties exchange the base amount (the principal) at the current spot rate. Usually, each party must pay interest on the principal too. If Party A loaned dollars and borrowed euros, it pays interest in euros and receives interest in dollars. Let's give an example. Suppose an MNE agrees to pay 4 percent compounded annually on a euro principal of €1,000,000 and receive 5 percent compounded annually on a U.S. dollar principal of \$1,300,000 every year for two years. As a result, it will receive €1,000,000 and pay \$1,300,000 today. It will then pay €40,000 annual interest and receive \$65,000 annual interest for two years. At the end of the second year, the MNE will receive \$1,300,000 and pay €1,000,000.

### Best Practice in Minimizing Currency Exposure

Managing currency risk across many countries is challenging. Management must stay informed about the firm's evolving exposures as well as shifting laws, regulations, and market conditions. Managers need to pursue a systematic approach to minimize currency risk.

Exhibit 10.8 presents guidelines that managers can use to minimize currency risk. The last recommendation, maintaining strategic flexibility in manufacturing and sourcing, is an ultimate solution. If the firm operates in numerous markets, each with varying degrees of currency, economic, and political stability, it will be well positioned to optimize its operations. For example, Dell outsources parts and components from various countries. It can quickly shift sourcing from one country or supplier to another, depending on the favorability of exchange rates and other factors.

#### Currency option

A contract that gives the purchaser the right, but not the obligation, to buy a certain amount of foreign currency at a set exchange rate within a specified length of time.

#### Currency swap

An agreement to exchange one currency for another according to a specified schedule.



**EXHIBIT 10.8****Managerial Guidelines  
for Minimizing Currency  
Risk**

1. *Seek expert advice.* Initially, management should obtain expert help from banks and consultants to set up programs and strategies that minimize risk.
2. *Centralize currency management within the MNE.* Although some currency management activities may be delegated to local managers, company headquarters should set basic guidelines for the subsidiaries to follow.
3. *Decide on the level of risk the firm can tolerate.* The level varies, depending on the nature of the project, amount of capital at risk, and management's tolerance for risk.
4. *Devise a system to measure exchange-rate movements and currency risk.* The system should provide ongoing feedback to help management develop appropriate risk-minimizing strategies.
5. *Monitor changes in key currencies.* Exchange rates fluctuate constantly. Continuous monitoring can avert costly mistakes.
6. *Be wary of unstable currencies or those subject to exchange controls.* The manager should deal in stable, readily convertible currencies. Be wary of government restrictions that affect the ability to exchange currencies.
7. *Monitor long-term economic and regulatory trends.* Exchange-rate shifts usually follow evolving trends such as rising interest rates, inflation, labor unrest, and the installation of new governments.
8. *Distinguish economic exposure from transaction and translation exposures.* Managers often focus on reducing transaction and translation exposures. However, the long-run effects of economic exposure on company performance can produce even greater harm.
9. *Emphasize flexibility in international operations.* A flexible production and outsourcing strategy means the firm can shift production and outsourcing to various nations to benefit from favorable exchange rates.

**MyLab Management Watch It! 1**

If your professor has assigned this, go to the Assignments section of [www.pearson.com/mylab/management](http://www.pearson.com/mylab/management) to complete the video exercise titled Yongshua USA, LLC the Value of Yuan in China.

**10.6** Understand how to manage the diversity of international accounting and tax practices.

**Managing the Diversity of International Accounting and Tax Practices**

Accounting systems differ around the world. There are dozens of approaches for determining company profits, R&D expenditures, and cost of goods sold.<sup>28</sup> Balance sheets and income statements vary internationally, not just in language, currency, and format but also in their underlying accounting principles. Financial statements prepared according to the rules of one country may be difficult to compare with those of another.



Source: Matyas Rehak/Shutterstock

Transparency is the degree to which companies regularly reveal information about their financial condition and accounting practices. Pictured here is the stock exchange in Santiago, Chile, one of several countries attracting more inward investment by improving transparency in their business sectors.

**Transparency in Financial Reporting**

Local accounting practices determine the degree of transparency in the reporting of financial information. **Transparency** is the degree to which companies regularly reveal substantial information about their financial condition and accounting practices. The more transparent a nation's accounting systems, the more regularly, comprehensively, and reliably the nation's public firms report their financial results to creditors, stockholders, and the government. Transparency facilitates better managerial decision making and lets investors accurately evaluate company performance. Chile, Costa Rica, and the Czech Republic have attracted greater FDI by increasing the transparency of their regulatory systems. By contrast, most developing economies have confusing accounting systems, delayed financial reporting, and

published information that is unreliable or incomplete. Following international financial crises, governments and central banks in Asia, Europe, and the Americas have sought to increase the transparency and strictness of their accounting standards. They have also strengthened supervision of banks and other financial institutions.<sup>29</sup>

### Trends Toward Harmonization

The growth of international business has pressured multinational firms and international organizations to harmonize world accounting systems. Organizations such as the International Accounting Standards Board (IASB), the United Nations, the European Union, and the Asociación Interamericana de Contabilidad (Interamerican Association of Accounting) have sought improvements in accounting measurement, disclosure, and auditing. The IASB is attempting to develop a single set of high-quality, understandable, and enforceable global accounting standards.

#### Harmonizing world accounting practices aims to achieve several goals:

- Reduce the cost of preparing financial statements.
- Increase the efficiency of consolidating financial information from various countries.
- Enhance the reliability of financial reporting by increasing comparability and transparency of accounting practices.
- Facilitate international investment in securities and ventures by helping investors and managers make better decisions.

Harmonization is particularly important to MNEs that seek foreign investors by listing on foreign stock exchanges. More than 120 countries require or allow the use of International Financial Reporting Standards (IFRS; [www.ifrs.com](http://www.ifrs.com)) in public company accounting. In the United States, firms comply with Generally Accepted Accounting Practices (GAAP). However, many large U.S. firms, such as Procter & Gamble, use IFRS standards in their foreign subsidiaries. Europe's IASB and the U.S. Financial Accounting Standards Board have worked to harmonize GAAP and IFRS. However, the effort has been delayed in light of practical and political considerations in Europe and the United States.<sup>30</sup>

### Consolidating the Financial Statements of Subsidiaries

A critical task in international accounting is *foreign currency translation*, or translating data denominated in foreign currencies into the firm's functional currency. Each of the firm's foreign subsidiaries normally maintains its financial records in the currency of the country where it is located. When subsidiary results are consolidated into headquarters' financial statements, they must be expressed in the parent's functional currency. Consolidation also facilitates headquarters' efforts to plan, evaluate, and control the firm's activities around the world.

When headquarters consolidates financial records, foreign currencies are translated into the functional currency by using one of two methods: the current rate method or the temporal method. The **current rate method** translates foreign currency balance sheets and income statements at the current exchange rate. That is, the method uses the spot exchange rate in effect on the day (in the case of balance sheets) or for the period (in the case of income statements) the statements are prepared. This method is typically used when translating records of foreign subsidiaries that are considered separate entities rather than part of the parent firm's operations. Consider Computershare, an Australian firm that markets financial software through its network of subsidiaries worldwide. The company translates the financial statements of its subsidiaries by using the current rate method because these subsidiaries are stand-alone legal entities. Amounts payable and receivable in foreign currencies are converted to Australian dollars at the exchange rate in effect on the day of consolidation.<sup>31</sup>

The current rate results in gains and losses, depending on the exchange rates in effect during the translation period. For example, the value of income received in a foreign currency six months earlier may differ substantially from its value on the day it is translated. For firms with extensive international operations, the accounting translation method can strongly influence company performance and valuation.

#### Transparency

The degree to which companies regularly reveal substantial information about their financial condition and accounting practices.

#### Current rate method

Translation of foreign currency balance sheet and income statements at the current exchange rate—the spot exchange rate in effect on the day or for the period when the statements are prepared.

### Temporal method

Translation of foreign currency balance sheet and income statements at an exchange rate that varies with the underlying method of valuation.

When firms use the **temporal method**, the choice of exchange rate depends on the underlying method of valuation. If assets and liabilities are normally valued at historical cost, they are translated at historical rates. That is, they are translated at the exchange rates in effect when the assets were acquired. If assets and liabilities are normally valued at market cost, they are translated at the current rate of exchange. Thus, monetary items such as cash, receivables, and payables are translated at the current exchange rate. Nonmonetary items such as inventory, property, plant, and equipment are translated at historical rates.

According to U.S. accounting standards, if the functional currency of the subsidiary is that of the local operating environment (for example, if the yen is the main currency the Japanese subsidiary of a U.S. multinational firm uses), the company must use the current rate method. If the functional currency is the parent's currency, the MNE must use the temporal method. The choice of method results in different profitability and other performance outcomes.

### International Taxation

In the countries where they operate, companies pay direct taxes, indirect taxes, sales taxes, value-added taxes, and carbon taxes, among others. *Direct taxes* are typically imposed on income from profits, capital gains, royalties, interest, and dividends. *Indirect taxes* apply to firms that license or franchise products and services or that charge interest. In effect, the local government withholds some percentage of royalty payments or interest charges as tax.

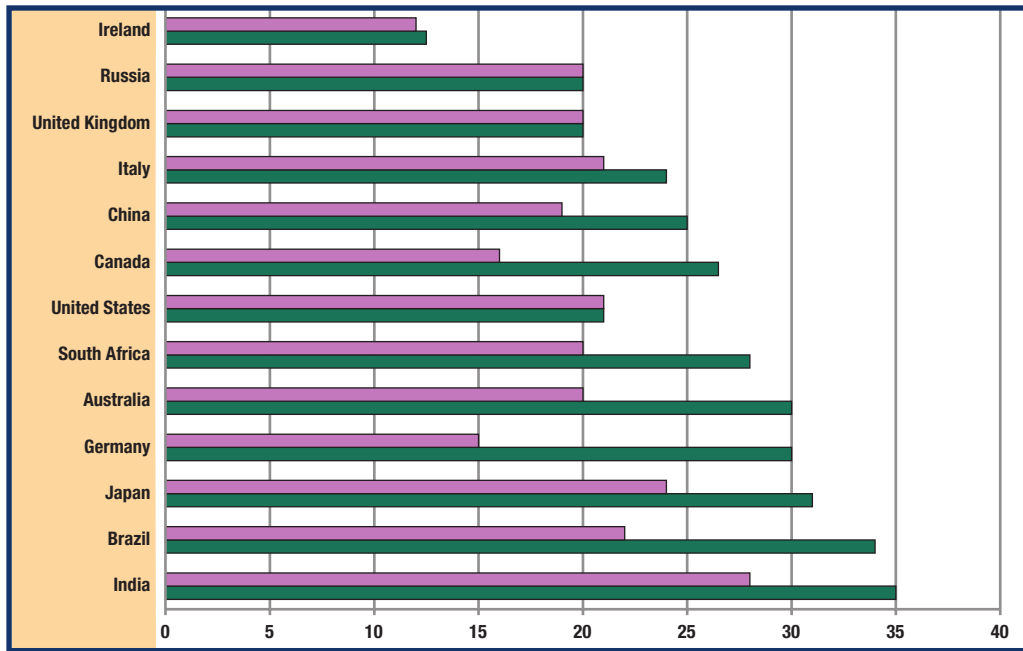
A *sales tax* is a flat percentage tax on the value of goods or services sold. It is paid by the ultimate user of the good or service. A *value-added tax (VAT)* is payable at each stage of processing in the value chain of a product or service. VAT is calculated as a percentage of the difference between the sale and purchase price of a product. The tax is common in Canada, Europe, and Latin America. Each business in a product's value chain is required to bill the VAT to its customers and pay the tax on its purchases, crediting the amounts it paid against the amounts due on its own activities. The net result is a tax on the added value of the good. Sales and VAT taxes are types of *consumption taxes*, which affect consumer spending on goods and services.

*Carbon taxes* are levied on the carbon content of fuels, such as coal, petroleum, and natural gas. When burned, such fuels convert to carbon dioxide and other substances, which can harm air quality or influence climate change. Numerous countries, including Denmark, Germany, India and Japan, have imposed taxes on carbon emissions in order to generate tax revenues and to reduce harmful effects on air quality and human health.

The most common form of direct tax is the *corporate income tax*. Exhibit 10.9 provides top marginal and effective corporate tax rates for a sample of countries. The top marginal rate is the maximum tax rate that corporations should pay. Most taxation systems charge taxes as multi-tiered brackets, which rise in increments depending on the amount of income earned. In the exhibit, the effective rate is an estimate of the rate that corporations actually pay. It is the rate calculated by dividing total taxes paid by total taxable income. Tax rates affect international planning because they encourage managers to organize and locate business activities in ways that minimize the tax. In most countries, firms reduce their tax burden substantially by taking deductions and allowances specified by national laws. MNEs employ various tax avoidance strategies; thus, the taxes that corporations pay are often much lower than those indicated in Exhibit 10.9.

Income tax influences the timing, size, and composition of company investment in plant and equipment, R&D, inventories, and other assets. Governments in many countries have reduced their income tax rates because they recognize high taxes can discourage investment.<sup>32</sup> For example, the United Kingdom cut its corporate income tax rate from 28 to 19 percent. In China, the rate went from 33 to 25 percent. Ireland has the lowest income tax rate, about 13 percent. The low tax is part of Ireland's effort to attract FDI and stimulate business.<sup>33</sup>

Almost since its founding in 1903, the U.S. automaker Ford sold cars in Canada, Japan, and other countries. At one time, whenever Ford sold cars in Canada, it was required to pay direct taxes on its income in both Canada and the United States.<sup>34</sup> Because of a lack of harmony in international tax rules, many MNEs were subject to double taxation, which reduced company earnings and discouraged firms from investing abroad. To resolve the problem, most countries signed tax treaties with their trading partners that help ensure that firms pay an appropriate amount of tax. A typical tax treaty between country A and country B states that, if the firm pays income tax in A, it does not pay the tax in B (or vice versa). This result is accomplished with foreign tax credits—an automatic decrease in domestic tax liability when the firm can prove it

**EXHIBIT 10.9**

### Top and Effective Corporate Income Tax Rates in Selected Countries (as a percent of corporate income)

Sources: Based on Congressional Budget Office, "International Comparisons of Corporate Income Tax Rates," March 2017, [www.cbo.gov](http://www.cbo.gov); KPMG, "Corporate Tax Rates Table, 2018," [www.us.kpmg.com](http://www.us.kpmg.com); N. Gregory Mankiw, "How Best to Tax Business," *New York Times*, April 21, 2017, [www.nytimes.com](http://www.nytimes.com); PWC, "International Comparison of Effective Corporate Tax Rates," September 2016, [www.pwc.com](http://www.pwc.com).

has already paid income tax abroad. Or the firm may be liable to pay tax in each country, but the amount is adjusted so the total is no more than the maximum tax in either country. Most tax treaties also obligate nations to assist each other in tax enforcement. This helps prevent tax evasion by ensuring that MNEs pay taxes in one country or the other.

Tax systems vary around the world, and MNEs have an incentive to structure their global activities in ways that minimize taxes. A **tax haven** is a country hospitable to business and inward investment because of its low corporate income taxes. MNEs take advantage of tax havens like Switzerland, Singapore, and the Cayman Islands either by establishing operations in them or by funneling business transactions through them. Nissan and Kraft Foods moved their European headquarters to Switzerland to take advantage of lower corporate tax rates. The Irish rock band U2 moved its music-publishing business to the Netherlands to shelter its songwriting royalties from taxation. Apple, Allergan, Facebook, Google, and many other firms have established subsidiaries in low-tax rate countries such as Bermuda, Ireland, Luxembourg, and the Netherlands.<sup>35</sup> The use of tax havens for tax reduction is generally legal but is restricted by some governments.<sup>36</sup> Corporations sometimes use tax havens to park revenues until needed elsewhere for trade or investment.

The OECD, World Bank, and other international organizations discourage the wrongful use of tax havens. These organizations lobby countries to develop transparent tax systems. The EU and OECD also pressure countries to reduce harmful tax competition. In Europe, foreign investors tend to establish operations in countries with low taxes and avoid countries with high taxes. Because this discourages European unity and economic development, EU governments are seeking to harmonize taxation throughout Europe.

### Managing International Finance to Minimize Tax Burden

Taxation affects managerial decisions about the type of entry modes, the legal form of foreign operations, transfer pricing, methods for obtaining capital, and even the choice of target markets. Companies seek to minimize their tax obligations legally. In Japan, the government imposes a high tax on malt, a key beer ingredient. Partly to avoid the tax, firms that brew beer in Japan employ a distillation technology that eliminates the need for malt. The product tastes like beer but is actually a type of liquor.

Every country has its own tax laws and loopholes that MNEs exploit in order to minimize their tax obligations. Global firms reduce taxes through various methods.<sup>37</sup>

- **Deferral of foreign affiliate income.** MNEs usually are liable to pay corporate taxes of both host countries and the country where the firm is headquartered. Once a firm has paid

### Tax haven

A country hospitable to business and inward investment because of its low corporate income taxes.



obligatory foreign taxes, it may be able to defer corporate taxes owed in its home country until later years. Under current tax law, such an option is available in the United States, the United Kingdom, and several other countries. In this way, many MNEs delay paying home-country taxes until rates fall or until they find other ways to reduce their tax burden.

- *Transfer pricing.* MNEs can minimize taxation at home or in other countries through skillful manipulation of transfer prices. For instance, BMW's China plant might charge higher prices for parts sold to BMW affiliates in high-tax countries in order to reduce profits in such locations and thereby reduce tax obligations.
- *Royalty payments.* MNEs often use royalty-based licensing agreements to structure payments among the firm's affiliates for intrafirm use of proprietary technologies and other intellectual assets. Most governments allow firms to deduct royalty payments as expenses, which reduces tax liability to licensees. Thus, many MNEs use licensing agreements within their international operations as a means to reduce taxes.
- *Intra-corporate loans.* Subsidiaries and affiliates of the same MNE often loan funds to each other or receive loans from company headquarters. Most countries allow companies to deduct interest payments on loans as expense items. In this way, MNEs frequently structure international loans within the same corporate family so as to maximize tax benefits.
- *Tax havens and inversions.* Companies may establish their headquarters in tax havens to reduce taxes. An *inversion* occurs when a firm moves its existing headquarters to a tax haven or other low-tax country. Resultant tax savings can be substantial. Ireland has become a popular destination for inversions because of the country's low corporate tax rate. In other cases, the MNE may establish holding companies or finance corporations in government-designated low-tax zones. The approach allows the firm to structure production and selling activities to minimize tax obligations.

MNEs are quite knowledgeable about loopholes and other tactics that help reduce their taxes. Large firms often seek to influence government tax policies in ways that favor corporate interests. However, tax avoidance raises ethical issues because it reduces the flow of revenue to national and local governments. Critics of tax avoidance argue that companies should contribute value to the nations where they do business. Paying taxes enables countries to build roads, support education, and provide other public goods from which corporations benefit.<sup>38</sup>

### MyLab Management Watch It! 2

If your professor has assigned this, go to the Assignments section of [www.pearson.com/mylab/management](http://www.pearson.com/mylab/management) to complete the video exercise titled Did Burger King Defect to Canada to Save Tax Money.

## CLOSING CASE

### International Financial Management at Tektronix

An oscilloscope is a measuring device with a display screen that checks the condition of electronic equipment. In 1946, founders of U.S.-based Tektronix, Inc. ([www.tek.com](http://www.tek.com)) built their first oscilloscope from electronic parts purchased from government surplus sales. Those oscilloscopes and other measuring devices contributed greatly to the development of computers and communications equipment.

TEK, as the firm is known, became a public company in 1963 and employs several thousand employees in dozens of countries. The firm earns roughly half its annual sales from North America, 25 percent from Europe, 15 percent from Japan, and the rest from other countries. TEK owes part of its original success to venture

capital funding. However, the majority of its capital comes from equity financing and debt sources.

#### International Operations

TEK launched its first foreign distributor in Sweden in 1948. In later years, the firm set up many sales subsidiaries abroad. It developed joint ventures in Japan (Sony-TEK) and China to distribute TEK products in those countries. It also established manufacturing plants in Germany, Italy, and Malaysia. TEK still manufactures most of its products in the United States, whereas competitors Agilent, HP, and Xerox have manufacturing plants in numerous countries

around the world. TEK management prefers to centralize manufacturing to synchronize production with R&D, ensure quality control, and exploit economies of scale.

Because TEK manufactures in the United States and sells abroad, it has substantial foreign-exchange exposure. Most of TEK's foreign sales are invoiced in local country currencies. If the U.S. dollar strengthens against those currencies, TEK's profits are reduced when it converts local country revenues into U.S. dollars. TEK also sources many inputs from abroad, which creates currency risks in its accounts payable.

For financial accounting, many of TEK's non-U.S. subsidiaries use their local country currencies as their functional currency. Thus, assets and liabilities are translated into U.S. dollars at end-of-period exchange rates. Income and expense items are translated at the average rate during the accounting period. To minimize currency risk, management deals proactively with transaction, translation, and economic exposures.

### Tax-Related Decisions

In recent years, countries such as France and Germany have increased their tax audits of foreign firms' local country subsidiaries. To help address these and other tax challenges, TEK centralized all its European treasury functions, including cash management, inventory, and receivables, to the firm's subsidiary in England. In addition, the firm sets all the pricing for its markets worldwide at company headquarters. Such approaches provide efficiencies in company financial activities, simplify tax preparation, and enhance TEK's ability to use foreign tax credits. The goal is to minimize TEK's average tax rate legally across all its markets, which had been running at 32 percent.

### Currency Risk Management

TEK has employed currency hedging selectively. Not all risks can be profitably hedged because of the high cost of banking fees and interest charges. As a result, TEK has experienced foreign-exchange losses in the past. To help minimize these losses, management established a unit at headquarters responsible for assessing and managing currency risk. TEK managers obtain intelligence from online sources and the forecasting departments of large banks and regularly monitor changes in key national currencies. Among the approaches that TEK applies are multilateral netting, offsetting cash flows, a centralized depository, forward contracts, and currency options.

### Multilateral Netting

TEK has many ongoing transactions with and among its subsidiaries. Its financial managers can strategically reduce cash transfers, transaction costs, and bank fees by eliminating offsetting cash flows between headquarters and the local country subsidiaries. Using multilateral netting, all subsidiaries report to headquarters what is owed in foreign currencies to other subsidiaries, customers, suppliers, and headquarters. Financial managers then advise each subsidiary how much to pay to minimize the number and amount of inter-subsidiary cash transfers. Managers also match hedging instruments with the firm's most pressing currency exposures. Widespread use of the euro in Europe has simplified international transactions and lessened the need for some netting operations in the firm's European activities.

### Offsetting Cash Flows

Whenever possible, management consolidates accounts receivable and accounts payable, matching them against one another.

If TEK owes a French supplier 800,000 euros, it can grant a trade credit in the amount of 800,000 euros to a German customer, making the receivable and payable offset each other in the same currency. TEK also has some flexibility to change the invoicing currency of its subsidiaries and affiliates—for example, by denominating some invoices from its Japan subsidiary in yen instead of dollars. Cash flows are also offset with counterbalanced investments in Asia and Europe and skillful transfer pricing and other intra-corporate financing activities. If headquarters wants to spend \$1 million to establish a new subsidiary in Europe, it will direct existing European subsidiaries to retain a similar amount of their earnings in euros. Then, instead of converting the foreign earnings into U.S. dollars, TEK uses the retained euro earnings to build the new subsidiary.

### Centralized Depository

Although some currency management is delegated to local country managers, headquarters in the United States is in charge and sets guidelines for the subsidiaries to follow. Management pools funds into centralized depositories and directs them to subsidiaries where needed or invests them to generate income. Management also pools accounts receivable for some European subsidiaries into a regional depository. This approach makes receipt and dispersal of cash more manageable, creates economies of scale in the investment and other uses of excess cash, and reduces the need for local borrowing. The centralized approach also concentrates managerial expertise and financial services at one location. Finally, the firm employs an invoicing center that invoices foreign subsidiaries in the local currency but receives invoices in U.S. dollars.

### Forward Contracts and Currency Options

TEK hedges against currency risk by taking positions in forward contracts. These instruments allow financial managers to buy or sell currency at a specific future date at an agreed-upon exchange rate. If there is much uncertainty about the value of a future receivable, management can guarantee a fixed exchange rate and minimize currency risk. The firm also employs currency options, contracts that grant the holder the right to buy or sell currency at a specified exchange rate during a specified period. TEK uses currency futures contracts with maturities of one to three months to mitigate currency risk. At any time, the firm's currency contracts can exceed \$100 million. The downside is that TEK must pay substantial trading fees and other costs for its currency hedging activities.

### Other Financial Developments

Some years ago, TEK undertook a major restructuring of company operations. The sale of a major division generated proceeds of more than \$900 million. Management used the funds partly to pay down the firm's corporate debt. In comparison to its equity holdings, the firm's debt is modest and manageable. Management favors a low debt-to-equity ratio.

Although TEK regularly experiences fluctuations in sales and currency values, management has developed substantial expertise to weather difficult challenges. Careful planning and implementation of financial operations will help the firm continue to reign as the leader in oscilloscopes and other measuring equipment.

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### Case Questions


- 10-4.** What are the implications for currency risk of TEK focusing its manufacturing in the United States but generating most of its sales abroad? Competitors such as HP and Kodak are more geographically diversified in their sourcing. What advantages does this create for them?
- 10-5.** The case lists various approaches TEK follows to minimize its exposure to currency risk. If hired by TEK, what other strategies and tactics would you recommend to reduce the firm's exposure even further? Justify your answer.
- 10-6.** TEK management attempts to maintain a reasonable ratio of debt to equity. Most firms prefer relatively low levels of debt in their capital structures. Why? What other approaches could TEK use to generate financing for its international operations? What approaches can TEK use to transfer funds within its operations worldwide?
- 10-7.** The case describes approaches TEK follows to minimize its international tax liability. Based on your reading of the chapter, how would you advise TEK management to reduce its taxes around the world further?

Sources: "Tektronix Finds Surprising Results from Net Promoter Scores," *B to B*, June 9, 2008, p. 14; "Danaher to Acquire Tektronix," *Canadian Electronics*, November/December 2007, p. 1; Danaher, Inc., 2017 Annual Report, Washington, DC; Joseph Epstein, "Did Rip Van Winkle Really Lift Its Head?" *Financial World*, April 8, 2006, pp. 42–45; Lori Ioannou, "Taxing Issues," *International Business*, March 1995, pp. 42–45; Marshall Lee, *Winning with People: The First 40 Years of Tektronix* (Beaverton, OR: Tektronix, Inc., 1986); Tim McElligott, "This Way Out: Rick Wills, Tektronix," *Telephony*, June 4, 2001, pp. 190–191; Arthur Stonehill, Jerry Davies, Randahl Finnessy, and Michael Moffett, "Tektronix (C)," *Thunderbird International Business Review* 46, No. 4 (July/August 2004), pp. 465–469; Tektronix, Inc., "Tektronix Named Finalist for 'Best in Test' 2010 Awards," Press release, [www.tek.com](http://www.tek.com); Tektronix corporate profile, [www.hoovers.com](http://www.hoovers.com); Tektronix corporate website, [www.tek.com](http://www.tek.com); Tektronix, Inc. *Marketline Company Profile*, April 19, 2017, pp. 1–8; William Wong, "There's More Than One Way to Skin an Oscilloscope," *Electronic Design*, March 2017, pp. 14–18.

The case was written by Betty Feng and Lawrence Yu under the supervision of S. Tamer Cavusgil.

## END-OF-CHAPTER REVIEW

### MyLab Management

Go to [www.pearson.com/mylab/management](http://www.pearson.com/mylab/management) to complete the problems marked with this icon .

## Key Terms

arbitrageurs 315	eurodollars 308	indirect quote 314
bond 309	foreign bond 309	intra-corporate financing 310
consolidation 313	forward contract 316	multilateral netting 311
currency option 317	forward rate 314	speculators 315
currency swap 317	fronting loan 310	spot rate 314
current rate method 319	futures contract 316	tax haven 321
debt financing 305	global bond market 309	temporal method 320
direct quote 314	global capital market 306	transaction exposure 313
economic exposure 313	global equity market 307	translation exposure 313
equity financing 305	global money market 306	transparency 318
Eurobond 309	hedgers 314	
eurocurrency 308	hedging 316	

## Summary

In this chapter, you learned about:

- **Choosing a capital structure**

*International financial management* involves the acquisition and use of funds for cross-border trade and investment activities. The capital structure is the mix of long-term financing—equity financing and debt financing—that the firm uses to support its international activities. Equity financing is obtained by selling shares in stock markets and by retaining earnings. Debt financing is obtained by borrowing money from banks and other financial institutions or by selling bonds.

- **Raising funds for the firm**

Companies can raise money in the global capital market. Equity financing can be obtained in the global equity market—the stock exchanges throughout the world where investors and firms meet to buy and sell shares of stock. In terms of debt financing, firms may borrow in the eurocurrency market, which uses currency banked outside its country of origin. Firms also sell bonds—often foreign bonds or Eurobonds—in the global bond market. In addition, MNEs can support the operations of their subsidiaries through intra-corporate financing.

- **Managing working capital and cash flow**

*Net working capital* is the difference between current assets and current liabilities. Firms often manage intra-corporate funds by developing a *centralized depository*, into which funds are pooled from the firm's network of subsidiaries and affiliates to distribute to units that need funds. The various methods for transferring funds within the MNE include *dividend remittances*, *royalty payments*, *transfer pricing*, and *fronting loans*. A fronting loan is a loan from a parent firm to its subsidiary, channeled through a bank or other financial intermediary. Multilateral netting is the process of strategically reducing the number of cash transfers between the parent and subsidiaries by eliminating the offsetting cash flows between these entities. Tax havens are countries with low taxes that are friendly to business and inward investment.

- **Performing capital budgeting**

*Capital budgeting* rests on analyses that management undertakes to evaluate the viability of proposed interna-

tional projects. Management calculates the *net present value* of a proposed project to decide whether it should be implemented.

- **Managing currency risk**

There are three main types of currency exposure: transaction exposure, economic exposure, and translation exposure. A firm faces transaction exposure when outstanding accounts receivable or payable are denominated in foreign currencies. Economic exposure results from exchange-rate fluctuations affecting the pricing of products, the cost of inputs, and the value of foreign investments. Translation exposure arises as the firm combines the financial statements of foreign subsidiaries into the parent's financial statements, a process called consolidation. Currency trading takes place between banks and currency brokers, often on behalf of multinational firms. Currency traders include hedgers, speculators, and arbitrageurs. Managers attempt to forecast exchange rates to minimize their firm's exposure to currency risk. Approaches for minimizing exposure to currency risk include centralizing currency management, measuring currency risk, monitoring long-term trends, and emphasizing flexibility in international operations. Firms also employ hedging, the use of specialized financial instruments to balance positions in foreign currencies. Key hedging tools include forward contracts, futures contracts, currency options, and currency swaps.

- **Managing the diversity of international accounting and tax practices**

Financial statements prepared in one country may be difficult to compare with those from other countries. Through transparency, firms regularly and comprehensively reveal reliable information about their financial condition and accounting practices. Various factors account for differences in national accounting systems. Several international organizations are aiming to harmonize cross-national accounting practices. Managers use the current rate method and the temporal method for currency translation. Internationally, firms can employ various methods to minimize taxes, which consist mainly of direct taxes, indirect taxes, sales taxes, and value-added taxes. Governments use two major methods for eliminating multiple taxation: the foreign tax credit and tax treaties.



## Test Your Comprehension

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- 10-8. What are the components of the capital structure in the typical MNE? What about MNEs in Japan and Germany? What about a typical firm in your country?
- 10-9. From a managerial perspective, what are the advantages and disadvantages of financing obtained from each of the following: equity, debt, and intra-corporate sources?
- 10-10. Suppose you had to raise capital to fund international value-adding activities and investment projects. From what types of sources (e.g., stock markets) would you most likely obtain each type of financing? What are financial centers and where are they located?
- 10-11. Identify five global tax havens. Explain their purpose and their attraction for global businesses.
- 10-12. Why would an organization use net present value analysis in order to evaluate domestic and international capital investment projects?
- 10-13. The European market is good for a certain British manufacturer. The problem is that sales are falling as the sterling strengthens against the euro. What can the British manufacturer do to protect its sales?
- 10-14. A French business needs \$30,000 for an immediate transaction. What exchange rate would they pay?
- 10-15. What are the major methods for translating foreign currency-denominated financial statements into the financial statements of the parent firm?

## Apply Your Understanding

**AACSB and CKR Intangible Soft Skills to improve employability and success in the workplace: Written and Oral Communications, Ethical Understanding and Reasoning, Diverse and Multicultural Work Environments, Reflective Thinking, Application of Knowledge**

- 10-16. Marite Perez is CEO of Havana, Inc., a large manufacturer of high-tech medical equipment based in North Miami Beach, Florida. The firm makes vital signs monitors, MRIs, X-ray machines, and other equipment for exploratory medical diagnostics. Marite wants to expand the firm rapidly into foreign markets. To accomplish this, she plans to invest much money in developing new products and establishing production and marketing subsidiaries abroad. What can Marite do to raise capital for these projects? What are the various methods that Marite might employ to raise capital for her firm? What are the advantages and disadvantages associated with each?
- 10-17. Michael Norton is the president of Liberty Enterprises, a large MNE based in Singapore that makes computers and related peripherals. The firm has many subsidiaries around the world. Demand for Liberty's products has been growing in Asia and Europe, especially in Indonesia, Japan, France, and Spain. Michael has always used external sources to finance the firm's working capital needs. Currently, with rapidly expanding business, he needs to access more working capital. What is the feasibility of raising funds through intra-corporate sources? What methods can Michael use to transfer funds within the firm? What should Michael know about multilateral netting?
- 10-18. *Ethical Dilemma:* Suppose you are president of West Turner Bank (WTB). WTB made loans for major construction projects in countries in Eastern Europe and North Africa. However, WTB's fortunes declined in recent years, and the bank now faces financial ruin. WTB senior management decided to call in loans made to these countries to strengthen the bank's deteriorating finances. That is, management decided to force borrowers in the construction projects to repay their loans immediately. You know that calling the loans will cause thousands of workers in the affected countries to lose their jobs. What should you do? Use the ethical framework in Chapter 4 to analyze this situation. Can you find any creative solutions to the dilemma?



## INTERNET EXERCISES

Access globalEDGE™ at [www.globalEDGE.msu.edu](http://www.globalEDGE.msu.edu)

### **AACSB and CKR Intangible Soft Skills to improve employability and success in the workplace: Written and Oral Communications, Information Technology, Analytical Thinking, Diverse and Multicultural Work Environments, Reflective Thinking, Application of Knowledge**

- 10-19.** The World Federation of Exchanges is the organization that represents major stock exchanges worldwide. Visit the online portal at [www.world-exchanges.org](http://www.world-exchanges.org), and access its detailed statistics, including data on individual exchanges, to answer the following questions.
- What percentage of the world market capitalization is represented by the top 10 exchanges?
  - For the most recent year, what exchanges accounted for the largest increases in market capitalization?
  - Which exchanges have seen the greatest increase recently in the number of firms listed?
  - For the most recent year, summarize highlights of global stock market activity.
- 10-20.** Suppose your job is to ensure that your firm has enough foreign exchange on hand to pay outstanding accounts payable. Assume your firm owes 1 million yen to a Japanese supplier, which is due exactly 60 days from now. Your task is to exchange dollars for the right amount of yen. To do this, you can enter a contract with a bank today to buy 1 million yen 60 days forward or wait 60 days and buy 1 million yen at the then-prevailing spot exchange rate. Which alternative do you prefer, and why? If you expect the spot rate 60 days from now will be the same as it is today, what is the expected dollar cost of buying 1 million yen in the spot market 60 days from now? How many dollars will it cost you to obtain 1 million yen if you entered the forward contract? To obtain the spot exchange rates, go to [www.ft.com](http://www.ft.com) and click Markets and then choose Currencies, or go to globalEDGE™ and enter “exchange rates” in the search engine.
- 10-21.** Many corporate websites provide financial information, including financial statements, as well as other information about companies’ status and progress. As an institutional investor, you are thinking of investing in one of the following firms: Diageo ([www.diageo.com](http://www.diageo.com)), the premium drinks firm; Vivendi ([www.vivendi.com](http://www.vivendi.com)), a French telecom; Grupo Carso ([www.gcarso.com.mx](http://www.gcarso.com.mx)), a major Mexican retailing conglomerate; and SK Telecom ([www.sktelecom.com](http://www.sktelecom.com)), the largest wireless communication services provider in South Korea. Look up each firm’s corporate website. Based on the information provided, answer the following questions:
- How would you rate the transparency of each firm?
  - How inclined are you to invest in each firm based on the information provided? Justify your answer.
  - In terms of transparency and investor-oriented information, which site is best?
  - Based on the best site, what recommendations would you make to the firm that owns the weakest site to improve its transparency and attract investors?

### **CKR Tangible Process Tool Exercise™**

#### **Finding the Best Location for a Bank Branch Abroad**

Banks are a critical participant in the world economy. They provide capital, foreign exchange, and other forms of money to national economies. Banks are expanding their operations to new markets around the world. Branch banking is a relatively cost-effective way to enter foreign markets. Under a branch banking model, the bank opens branches in target countries.

The problem of choosing the best markets for locating bank branches abroad is complex. What makes a good location? What types of indicators should be considered? Before locating new branches abroad, managers ascertain the most appropriate location to maximize bank performance. The successful international manager investigates the best locations in advance. Given the number of potential locations and the variables to consider, deciding on the best locations is challenging.

In this exercise, you will acquire skills on researching monetary and financial statistics for international markets, factors to consider when locating bank branches abroad, and

understanding how these factors relate to bank performance and competitive advantages abroad.

Assume you are a manager at Barclays, Citibank, or some other large bank. Management wants to establish additional bank branches abroad. Your task is to identify the most appropriate foreign location for setting up a bank branch. Based on your analysis, make a recommendation on which country is most promising.

### **Background**

Banking is a critical industry for various reasons. It has become truly international for various reasons. These include growing interdependence of national economies, expansion of world trade, deregulation of financial services, and advances in communications and information technologies.

Large banks often establish foreign branches. The best approach is through branch banking, that is, setting up bank branches at customers' locations abroad. Branch banks provide much the same financial services as local banks abroad. Banks that expand internationally help create jobs, supply capital to local economies, and contribute to the tax base.

However, the international environment entails various risks. When banks establish branches abroad, they want to maximize conditions for success and minimize risk. Banks seek the best markets and the most effective locations to grow and deliver services to current and new customers.

To complete this exercise, go to MyLab Management ([www.pearson.com/mylab/management](http://www.pearson.com/mylab/management)) and click on **Career Toolbox**.

## APPENDIX

### The Math of Currency Trading

News outlets such as the *Financial Times* and the *Wall Street Journal*, as well as online sources, publish bilateral exchange-rate tables that list currency values in terms of other currencies. These tables typically report bid–ask midpoints. Here is an example:

	£	€	¥	\$
UK pound (£)	1	0.8786	0.006803	0.7143
Euro (€)	1.1382	1	0.007743	0.8130
Japanese yen (¥)	147.00	129.15	1	105.00
U.S. dollar (\$)	1.4000	1.2300	0.009524	1

The numeric cells contain the number of units of the currency in the left-most column that equal one unit of the currencies along the top row of the table (e.g., £0.8786/€1). Rather than trying to remember this convention, it is usually easier to infer the convention used in these tables from the values of your domestic currency. In the preceding example, Japanese and U.S. residents are likely to know that the dollar/yen price of 105.00 reflects a yen-per-dollar exchange rate of ¥105.00/\$1 rather than a dollar-per-yen price. This is a direct price for a Japanese resident and an indirect price for a U.S. resident. The dollar-per-yen price is then simply the reciprocal of the yen-per-dollar price:

$$1/(\text{¥}147.00/\text{\$}) = \$0.009524/\text{¥}$$

Note that the values in this table are *internally consistent*. Thus, the yen-per-pound exchange rate must equal the yen-per-dollar rate times the dollar-per-pound rate:

$$\text{¥}147.00/\text{£} = (\text{¥}105.00/\text{\$}) \times (\text{\$}1.4000/\text{£})$$

Alternatively, the yen-per-pound rate can be calculated by dividing the yen-per-dollar rate by the pound-per-dollar rate:

$$\text{¥}147.00/\text{£} = (\text{¥}105.00/\text{\$})/(\text{£}0.7143/\text{\$})$$

Keeping track of the currency units ensures that the answer has the correct units.

Exchange rates that do not involve the domestic currency are called *cross rates*. Cross rates for infrequently traded currencies can be calculated by comparing them against an actively traded currency such as the dollar. For example, the cross rate between the Chilean peso (CLP) and Japanese yen can be calculated by combining the CLP-per-dollar rate with the yen-per-dollar rate. If one U.S. dollar is worth 607.75 Chilean pesos, then the CLP-per-yen rate must be:

$$(\text{CLP } 607.75/\text{\$})/(\text{¥}105.00/\text{\$}) = \text{CLP } 5.7881/\text{¥}$$

Again, it is important to keep track of the currency units to ensure the desired result.

### Endnotes

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  14. Here is an example of how transfer pricing works: Consider an MNE with subsidiaries in three countries. Suppose that subsidiary A operates in country A with high corporate income taxes, and subsidiary B operates in country B, a tax haven. One way to minimize taxes is for subsidiary A to sell merchandise to subsidiary B for a low transfer price. Subsidiary B then resells the merchandise to subsidiary C in the third country at a high transfer price. This results in lower overall taxes for subsidiary A because of its low profits, for subsidiary B because of country B's low tax rates, and for subsidiary C because the high cost of its purchase reduces its profits. Although this approach to transferring funds within the MNE is quite common, transfer pricing has some drawbacks. First, although transfer pricing between members of the corporate family is legal when carried out within reasonable limits, governments strongly disapprove of the practice of avoiding tax obligations. Thus, many governments impose policies that restrict transfer pricing. Coca-Cola's Japan subsidiary was fined 15 billion yen for making royalty payments from trademarks and products to its U.S. parent that Japan's National Tax Administration judged as too high. Second, transfer pricing can distort the financial results of foreign subsidiaries. For instance, a subsidiary that is required to charge low prices for its exports may experience unusually low profitability, which harms its performance and can demoralize local staff. Third, some MNEs use artificial transfer prices to hide the poor results of a badly performing subsidiary or achieve other goals aimed at concealing the true performance of the firm.
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  16. Here is an illustration of net present value analysis: A U.S.-based MNE is considering an expansion project through its subsidiary in Mexico. The project requires an initial investment of 220 million Mexican pesos (MXP) and has an economic life of five years. The project is expected to generate annual after-tax cash flows of MXP120 million, MXP125 million, MXP150 million, MXP155 million, and MXP200 million, which will be remitted to the parent company during the next five years. The current spot exchange rate is MXP11/\$1, and the spot rates are expected to be MXP11.10/\$1, MXP11.25/\$1, MXP11.50/\$1, MXP11.55/\$1, and MXP11.75/\$1 for the next five years. Assuming that the appropriate discount rate for this project is 10 percent, what is the NPV of the project from the parent company's perspective? Should the MNE accept this project based on its NPV? Let's analyze. The U.S. cash flows of the project can be calculated as follows:

	0	1	2	3	4	5
Mexican peso cash flows	MXP 220 Million	MXP 120 Million	MXP 125 Million	MXP 150 Million	MXP 155 Million	MXP 200 Million
Prevailing spot exchange rate	MXP 11/\$1	MXP 11.10/\$1	MXP 11.25/\$1	MXP 11.50/\$1	MXP 11.55/\$1	MXP 11.75/\$1
U.S. dollar cash flows	\$20,000,000	\$10,810,811	\$11,111,111	\$13,043,478	\$13,419,913	\$17,021,277

The NPV of the project can be calculated as follows:

$$\text{NPV} = -\$20,000,000 + \$10,810,811/(1 + 0.10)^1 + \$11,111,111/(1 + 0.10)^2 + \$13,043,478/(1 + 0.10)^3 + \$13,419,913/(1 + 0.10)^4 + \$17,021,277/(1 + 0.10)^5$$

$$\text{NPV} = \$28,545,359$$

The MNE can accept the project because it has a positive NPV.

17. The discount rate used in the NPV analysis of international projects may be higher due to a premium for additional risks involved in doing business internationally. Management may insist on a higher level of required return in the net present value calculation because higher country-political and currency risks indicate a higher probability of venture failure. A firm might apply a 7 percent discount rate to potential investments in Germany and Japan because those countries enjoy political and economic stability. However, the same firm might use a 14 percent discount rate for similar potential investments in Pakistan and Russia because those countries experience political and economic turmoil. The higher the discount rate, the higher the projected net cash flows must be for the investment to have a positive net present value contribution. Occasionally, the discount rate for international projects can be lower than for domestic ones. Risk arises from various sources, and management must systematically assess the range of potentially influential factors.
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38. The authors gratefully acknowledge Professor Hakan Saraoglu, Bryant University, for his assistance in preparing Chapter 10, "Financial Management and Accounting in the Global Firm."

## Part 3 | Strategy and Opportunity Assessment

# Chapter 11

## Strategy and Organization in the International Firm

**Learning Objectives** *After studying this chapter, you should be able to:*

- 11.1 Describe strategy in international business.
- 11.2 Understand building the global firm.
- 11.3 Describe the integration-responsiveness framework.
- 11.4 Learn to identify strategies based on the integration-responsiveness framework.
- 11.5 Understand organizational structure in international business.
- 11.6 Understand foreign market entry strategies.

### IKEA: Global Retailing Success Story

IKEA evolved from a small, Swedish company to become the leading global retailer of specialty furniture. Ingvar Kamprad founded the firm in Sweden in 1943. IKEA originally sold pens, picture frames, jewelry, and nylon stockings—anything Kamprad could sell at a low price. In 1950, IKEA began selling furniture and housewares. In the 1970s, the firm expanded into Europe and North America and began to grow rapidly. Total sales in 2017 exceeded \$40 billion, making IKEA the world's largest furniture retailer. Usually located in major cities, IKEA stores are huge warehouse-style outlets that stock some 12,000 items. They include everything for the home—from sofas to plants to kitchen utensils.

IKEA's philosophy is to offer high-quality, well-designed furnishings at low prices. Its functional, utilitarian, and space-saving pieces have a distinctive Scandinavian style and are knock-down furniture, which the customer assembles at home.

IKEA's corporate offices are located in the Netherlands and Sweden. The firm employs numerous global strategies that enable its success. Product development, purchasing, and warehousing are centered in Sweden. Headquarters designs and develops IKEA's global branding and product line, often collaborating closely with external suppliers. About half of IKEA products are made in Europe. Another one-third are made in Asia, and the rest are mainly made in the United States. Approximately 90 percent of IKEA's product line is identical worldwide. Store managers constantly report market research to headquarters on sales and customer preferences.

IKEA targets moderate-income households with limited living space. The preferred market segment is progressive, well-educated people who care little about status. Targeting a global customer segment allows IKEA to offer standardized products at uniform prices.