Chapter 18

International Managerial Finance

LEARNING GOALS

LG1 Understand the major factors that influence the financial operations of multinational companies (MNCs).

LG2 Describe the key differences between purely domestic and international financial statements—consolidation, translation of individual accounts, and international profits.

LG3 Discuss exchange rate risk and political risk, and explain how MNCs manage them.

LG4 Describe foreign direct investment, investment cash flows and decisions, the MNCs’ capital structure, and the international debt and equity instruments available to MNCs.

LG5 Discuss the role of the Eurocurrency market in short-term borrowing and investing (lending) and the basics of international cash, credit, and inventory management.

LG6 Review recent trends in international mergers and joint ventures.

ACROSS THE DISCIPLINES  WHY THIS CHAPTER MATTERS TO YOU

Accounting: You need to understand the tax rules for multinational companies, how to prepare consolidated financial statements for subsidiary companies, and how to account for international items in financial statements.

Information systems: You need to understand that if the firm undertakes foreign operations, it will need systems that track investments and operations in another currency and their fluctuations against the domestic currency.

Management: You need to understand both the opportunities and the risks involved in international operations; the possible role of international financial markets in raising capital; and the basic hedging strategies that multinational companies can use to protect themselves against exchange rate risk.

Marketing: You need to understand the potential for expanding into international markets and the ways of doing so (exports, foreign direct investment, mergers, and joint ventures); also, you should know how investment cash flows in foreign projects will be measured.

Operations: You need to understand the costs and benefits of moving operations offshore and/or buying equipment, parts, and inventory in foreign markets. Such an understanding will allow you to participate in the firm’s decisions with regard to international operations.
The world’s largest firm, General Electric Company (www.ge.com), with a market capitalization of more than $343 billion, considers globalization one of its core competencies. GE has manufactured and sold products outside the United States for 100 years, and a third of its leadership team is global. With global revenues of $61 billion (45 percent of its total revenues in 2003), the company expects its international sales to grow 15 percent in 2004. GE believes that global growth requires more than simply shipping products. A company must be equally committed to developing capabilities and relationships in the markets where it wants to succeed.

One of GE’s markets is China, where its revenues totaled $2.6 billion in 2003. China will invest $300 billion for infrastructure—energy, aviation, water, and health care—in this decade. The 2008 Olympics in Beijing will be one of its massive infrastructure projects. With its superior infrastructure technology, GE expects to be a major participant in helping China prepare for the 2008 summer games. To support its Chinese customers, GE has more than 1,700 sales and service people on the ground. It has built a Global Research Center in Shanghai to develop the capabilities of its Chinese suppliers, and the company is training its own Chinese business leaders and customers in GE management techniques. In other words, it is treating China exactly as it does developed markets such as the United States, Japan, and Europe.

This approach is working in other developing markets. The firm’s revenues in Eastern Europe, Russia, and Iraq are expected to grow from $1.2 billion in 2003 to $5 billion in 2005. GE recently signed a $700 million agreement to modernize the rail system in Russia and has an additional $2 billion of power project opportunities. GE’s Consumer and Commercial Finance profits in Eastern Europe are growing 30 percent annually. With more than half of Iraq’s power grid based on GE technology, the company has the capabilities that Iraq will need as it rebuilds. GE received $450 million of orders in Iraq in 2003 and believes that it could receive $3 billion more over the next few years.

Like GE, many companies are looking beyond their home countries’ borders for new market opportunities. While globalization can bring controversy, companies such as GE believe that future growth requires that U.S. companies view the world as their market. This chapter will explain the additional considerations they must take into account as they apply the principles of managerial finance in the international setting.


When countries or regions experience currency and/or economic stress, how might it affect a company that does business in that area of the world?
**18.1 The Multinational Company and Its Environment**

In recent years, as world markets have become significantly more interdependent, international finance has become an increasingly important element in the management of multinational companies (MNCs). These firms, based anywhere in the world, have international assets and operations in foreign markets and draw part of their total revenue and profits from such markets. The principles of managerial finance presented in this text are applicable to the management of MNCs. However, certain factors unique to the international setting tend to complicate the financial management of multinational companies. A simple comparison between a domestic U.S. firm (firm A) and a U.S.-based MNC (firm B), as illustrated in Table 18.1, indicates the influence of some of the international factors on MNCs’ operations.

In the present international environment, multinationals face a variety of laws and restrictions when operating in different nation-states. The legal and economic complexities existing in this environment are significantly different from those a domestic firm would face. Here we take a brief look at the newly emerging trading blocs in North America, western Europe, and South America; GATT and the WTO; legal forms of business organization; taxation of MNCs; and financial markets.

### Emerging Trading Blocs

During the early 1990s, three important trading blocs emerged, centered in the Americas and western Europe. Chile, Mexico, and several other Latin American countries began to adopt market-oriented economic policies in the late 1980s,

### Table 18.1 International Factors and Their Influence on MNCs’ Operations

<table>
<thead>
<tr>
<th>Factor</th>
<th>Firm A (Domestic)</th>
<th>Firm B (MNC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign ownership</td>
<td>All assets owned by domestic entities</td>
<td>Portions of equity of foreign investments owned by foreign partners, thus affecting foreign decision making and profits</td>
</tr>
<tr>
<td>Multinational capital markets</td>
<td>All debt and equity structures based on the domestic capital market</td>
<td>Opportunities and challenges arise from the existence of different capital markets where debt and equity can be issued</td>
</tr>
<tr>
<td>Multinational accounting</td>
<td>All consolidation of financial statements based on one currency</td>
<td>The existence of different currencies and of specific translation rules influences the consolidation of financial statements into one currency</td>
</tr>
<tr>
<td>Foreign exchange risks</td>
<td>All operations in one currency</td>
<td>Fluctuations in foreign exchange markets can affect foreign revenues and profits as well as the overall value of the firm</td>
</tr>
</tbody>
</table>
forging very close financial and economic ties with the United States and with each other. In 1988, Canada and the United States negotiated essentially unrestricted trade between their countries, and this free-trade zone was extended to include Mexico in late 1992 when the North American Free Trade Agreement (NAFTA) was signed by the presidents of the United States and Mexico and the prime minister of Canada. NAFTA was ratified by the U.S. Congress in November 1993. This trade pact simply mirrors underlying economic reality—Canada and Mexico are among the United States’ largest trading partners. In 2003–2004, the United States signed a bilateral trade deal with Chile and also a regional pact, known as the Central American Free Trade Agreement (CAFTA), with the Dominican Republic and five Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua).

The European Union, or EU, has been in existence since 1956. It has a current membership of 25 nations. With a total population estimated at more than 430 million (compared to the U.S. population of about 295 million) and an overall gross national income paralleling that of the United States, the EU is a significant global economic force. Via a series of major economic, monetary, financial, and legal provisions set forth by the member countries during the 1980s, the countries of Western Europe opened a new era of free trade within the union when intraregional tariff barriers fell at the end of 1992. This transformation is commonly called the European Open Market. Although the EU has managed to reach agreement on most of these provisions, debates continue on certain other aspects (some key), including those related to automobile production and imports, monetary union, taxes, and workers’ rights. As a result of the Maastricht Treaty of 1991, 12 EU nations adopted a single currency, the euro, as a continent-wide medium of exchange beginning January 1, 1999. Beginning January 1, 2002, 12 EU nations switched to a single set of euro bills and coins, causing the national currencies of all 12 countries participating in monetary union to slowly disappear in the following months.

At the same time that the European Union implemented monetary union (which also involved creating a new European Central Bank), the EU had to deal with a wave of new applicants, resulting in the May 1, 2004, admission of 10 new members from eastern Europe and the Mediterranean region. The rapidly emerging new community of Europe offers both challenges and opportunities to a variety of players, including multinational firms. MNCs, especially those based in the United States, today face heightened levels of competition when operating inside the EU. As more of the existing restrictions and regulations are eliminated, for instance, U.S. multinationals will have to face other MNCs, some from within the EU itself.

The third major trading bloc that arose during the 1990s is the Mercosur Group of countries in South America. Beginning in 1991, the nations of Brazil, Argentina, Paraguay, and Uruguay began removing tariffs and other barriers to intraregional trade. The second stage of Mercosur’s development, which began at the end of 1994, involved the development of a customs union to impose a common tariff on external trade while enforcing uniform and lower tariffs on intragroup trade. The long-term importance of Mercosur, CAFTA, and other regional and bilateral trade agreements will be influenced by the decisions of the U.S. Congress in expanding the “reach” of NAFTA, as well as by other hemispheric and global economic developments and agreements. In any case, the Mercosur countries represent well over half of total Latin American GDP, and
thus they will loom large in the plans of any MNC that wishes to access the
growth markets of this region.

U.S. companies can benefit from the formation of regional and bilateral trade
pacts, but only if they are prepared to exploit them. They must offer a desirable
mix of products to a collection of varied consumers and be ready to take advan-
tage of a variety of currencies and of financial markets and instruments (such as
the Euroequities discussed later in this chapter). They must staff their operations
with the appropriate combination of local and foreign personnel and, when nec-
essary, enter into joint ventures and strategic alliances.

GATT and the WTO

Although it may seem that the world is splitting into a handful of trading blocs,
this is less of a danger than it may appear to be, because many international
treaties are in force that guarantee relatively open access to at least the largest
economies. The most important such treaty is the General Agreement on Tariffs
and Trade (GATT). In 1994, Congress ratified the most recent version of this
treaty, which has governed world trade throughout most of the postwar era. The
current agreement extends free-trading rules to broad areas of economic
activity—such as agriculture, financial services, and intellectual property rights—
that had not previously been covered by international treaty and were thus effect-
ively off-limits to foreign competition.

The 1994 GATT treaty also established a new international body, the World
Trade Organization (WTO), to police world trading practices and to mediate dis-
putes between member countries. The WTO began operating in January 1995. In
2004, preliminary approvals were granted for an eventual membership of the
Russian Federation in the WTO. As more countries join the WTO, the long-term
prospects are expected to improve for trade and economic performance around
the world. In December 2001, the People’s Republic of China was, after years of
controversy, granted membership. Now that China’s status is resolved, there is an
improved chance for stability in world trading patterns, in spite of the stunning
collapse of several East Asian economies that began in July 1997.

Legal Forms of Business Organization

In many countries outside the United States, operating a foreign business as a
subsidiary or affiliate can take two forms, both similar to the U.S. corporation. In
German-speaking nations the two forms are the Aktiengesellschaft (A.G.) or the
Gesellschaft mit beschränkter Haftung (GmbH). In many other countries the
similar forms are a Société Anonyme (S.A.) or a Société à Responsabilité Limitée
(S.A.R.L.). The A.G. and the S.A. are the most common forms, but the GmbH
and the S.A.R.L. require fewer formalities for formation and operation.

Although establishing a business in a form such as the S.A. can involve most
of the provisions that govern a U.S.-based corporation, to operate in many for-
eign countries, it is often essential to enter into joint-venture business agreements
with private investors or with government-based agencies of the host country. A
joint venture is a partnership under which the participants have contractually
agreed to contribute specified amounts of money and expertise in exchange for stated proportions of ownership and profit. Joint ventures are common in most of the less developed nations.

Emerging and developing countries have varying laws and regulations regarding MNCs’ subsidiary and joint-venture operations. Whereas many host countries (including Mexico, Brazil, South Korea, Thailand, and Taiwan) have either completely removed or significantly liberalized their local-ownership requirements, other major economies (including China and India) are just beginning to relax these restrictions. China, for instance, has gradually opened up new economic sectors and industries to partial (and, in a few cases, full) foreign participation, while India continues to insist on majority local ownership in widening segments of its economy. MNCs, especially those based in the United States, the EU, and Japan, will face new challenges and opportunities in the future in terms of ownership requirements, mergers, and acquisitions.

The existence of joint-venture laws and restrictions has implications for the operation of foreign-based subsidiaries. First, majority foreign ownership may result in a substantial degree of management and control by host country participants; this, in turn, can influence day-to-day operations to the detriment of the managerial policies and procedures that are normally pursued by MNCs. Next, foreign ownership may result in disagreements among the partners as to the exact distribution of profits and the portion to be allocated for reinvestment. Moreover, operating in foreign countries, especially on a joint-venture basis, can involve problems regarding the remittance of profits. In the past, the governments of Argentina, Brazil, Venezuela, and Thailand, among others, have imposed ceilings not only on the repatriation (return) of capital by MNCs but also on profit remittances by these firms to the parent companies. These governments usually cite the shortage of foreign exchange as the motivating factor. Finally, from a “positive” point of view, it can be argued that MNCs operating in many of the less developed countries benefit from joint-venture agreements, given the potential risks stemming from political instability in the host countries. This issue will be addressed in detail in subsequent discussions.

Taxes

Multinational companies, unlike domestic firms, have financial obligations in foreign countries. One of their basic responsibilities is international taxation—a complex issue because national governments follow a variety of tax policies. In general, from the point of view of a U.S.-based MNC, several factors must be taken into account.

Tax Rates and Taxable Income

First, the level of foreign taxes needs to be examined. Among the major industrial countries, corporate tax rates do not vary too widely. Many less industrialized nations maintain relatively moderate rates, partly as an incentive for attracting foreign capital. Certain countries—in particular, the Bahamas, Switzerland, Liechtenstein, the Cayman Islands, and Bermuda—are known for their “low” tax levels. These nations typically have no withholding taxes on intra-MNC dividends.
Next, there is a question as to the definition of taxable income. Some countries tax profits as received on a cash basis, whereas others tax profits earned on an accrual basis. Differences can also exist in treatments of noncash charges, such as depreciation, amortization, and depletion. Finally, the existence of tax agreements between the United States and other governments can influence not only the total tax bill of the parent MNC but also its international operations and financial activities.

Tax Rules

Different home countries apply varying tax rates and rules to the global earnings of their own multinationals. Moreover, tax rules are subject to frequent modifications. In the United States, for instance, the Tax Reform Act of 1986 resulted in certain changes affecting the taxation of U.S.-based MNCs. Special provisions apply to tax deferrals by MNCs on foreign income; operations set up in U.S. possessions, such as the U.S. Virgin Islands, Guam, and American Samoa; capital gains from the sale of stock in a foreign corporation; and withholding taxes.

Furthermore, MNCs (both U.S. and foreign) can be subject to national as well as local taxes. As an example, a number of individual U.S. states have special unitary tax laws that tax the multinationals on a percentage of their total worldwide income rather than solely on the MNCs’ earnings arising within their jurisdiction. As a general practice, the U.S. government claims jurisdiction over all the income of an MNC, wherever earned. (Special rules apply to foreign corporations conducting business in the United States.) However, it may be possible for a multinational company to take foreign income taxes as a direct credit against its U.S. tax liabilities. The following example illustrates one way of accomplishing this objective.

**Example**

American Enterprises, a U.S.-based MNC that manufactures heavy machinery, has a foreign subsidiary that earns $100,000 before local taxes. All of the after-tax funds are available to the parent in the form of dividends. The applicable taxes consist of a 35% foreign income tax rate, a foreign dividend withholding tax rate of 10%, and a U.S. tax rate of 34%.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary income before local taxes</td>
<td>$100,000</td>
</tr>
<tr>
<td>Foreign income tax at 35%</td>
<td>$35,000</td>
</tr>
<tr>
<td>Dividend available to be declared</td>
<td>$65,000</td>
</tr>
<tr>
<td>Foreign dividend withholding tax at 10%</td>
<td>$6,500</td>
</tr>
<tr>
<td>MNC’s receipt of dividends</td>
<td>$58,500</td>
</tr>
</tbody>
</table>

Using the so-called **grossing up procedure**, the MNC will add the full before-tax subsidiary income to its total taxable income. Next, the U.S. tax liability on the...

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1. For updated details on various countries’ tax laws, consult relevant publications of international accounting firms.
grossed-up income is calculated. Finally, the related taxes paid in the foreign country are applied as a credit against the additional U.S. tax liability:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional MNC income</td>
<td>$100,000</td>
</tr>
<tr>
<td>U.S. tax liability at 34%</td>
<td>$34,000</td>
</tr>
<tr>
<td>Total foreign taxes paid to be used as a credit</td>
<td>($41,500)</td>
</tr>
<tr>
<td>($35,000 + $6,500)</td>
<td></td>
</tr>
<tr>
<td>U.S. taxes due</td>
<td>0</td>
</tr>
<tr>
<td>Net funds available to the parent MNC</td>
<td>$58,500</td>
</tr>
</tbody>
</table>

Because the U.S. tax liability is less than the total taxes paid to the foreign government, no additional U.S. taxes are due on the income from the foreign subsidiary. In our example, if tax credits had not been allowed, then “double taxation” by the two authorities, as shown in what follows, would have resulted in a substantial drop in the overall net funds available to the parent MNC:

<table>
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<tr>
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<td>($6,500)</td>
</tr>
<tr>
<td>MNC’s receipt of dividends</td>
<td>$58,500</td>
</tr>
<tr>
<td>U.S. tax liability at 34%</td>
<td>($19,890)</td>
</tr>
<tr>
<td>Net funds available to the parent MNC</td>
<td>$38,610</td>
</tr>
</tbody>
</table>

The preceding example clearly demonstrates that the existence of bilateral tax treaties and the subsequent application of tax credits can significantly enhance the overall net funds available to MNCs from their worldwide earnings. Consequently, in an increasingly complex and competitive international financial environment, international taxation is one of the variables that multinational corporations should fully utilize to their advantage.

The In Practice box on page 798 discusses the ethical issues of gift-giving and bribery when doing business in foreign countries, which some consider a form of additional “taxation.”

Financial Markets

During the last two decades the Euromarket—which provides for borrowing and lending currencies outside their country of origin—has grown rapidly. The Euromarket provides multinational companies with an “external” opportunity to borrow or lend funds, with the additional feature of less government regulation.

Growth of the Euromarket

The Euromarket has grown large for several reasons. First, beginning in the early 1960s, the Russians wanted to maintain their dollar earnings outside the legal jurisdiction of the United States, mainly because of the Cold War. Second, the
consistently large U.S. balance-of-payments deficits helped to “scatter” dollars around the world. Third, the existence of specific regulations and controls on dollar deposits in the United States, including interest rate ceilings imposed by the government, helped to send such deposits to places outside the United States.

These and other factors have combined and contributed to the creation of an “external” capital market. Its size cannot be accurately determined, mainly because of its lack of regulation and control. Several sources that periodically estimate its size are the Bank for International Settlements (BIS), Morgan Guar-
offshore centers

Certain cities or states (including London, Singapore, Bahrain, Nassau, Hong Kong, and Luxembourg) that have achieved prominence as major centers for Euromarket business.

Today the overall size of the Euromarket is well above $4.0 trillion net international lending.

One aspect of the Euromarket is the so-called offshore centers. Certain cities or states around the world—including London, Singapore, Bahrain, Nassau, Hong Kong, and Luxembourg—are considered major offshore centers for Euromarket business. The availability of communication and transportation facilities, along with the importance of language, costs, time zones, taxes, and local banking regulations, are among the main reasons for the prominence of these centers.

In recent years, a variety of new financial instruments have appeared in the international financial markets. One is interest rate and currency swaps. Another is various combinations of forward and options contracts on different currencies. A third is new types of bonds and notes—along with an international version of U.S. commercial paper—with flexible characteristics in terms of currency, maturity, and interest rate. More details will be provided in subsequent discussions.

Major Participants

The Euromarket is still dominated by the U.S. dollar. However, activities in other major currencies, including the Swiss franc, Japanese yen, and British pound sterling, and (increasingly) the euro, have in recent years grown much more rapidly than those denominated in the U.S. currency. Similarly, although U.S. banks and other financial institutions continue to play a significant role in the global markets, financial giants from Japan and Europe have become major participants in the Euromarket.

Following the oil price increases by the Organization of Petroleum Exporting Countries (OPEC) in 1973–1974 and 1979–1980, massive amounts of dollars were placed in various Euromarket financial centers. International banks, in turn, began lending to different groups of borrowers. At the end of 2001, estimates showed that a group of Latin American countries had international debt in excess of $750 billion, with Russia owing more than $153 billion. Meanwhile, 2004 estimates put Iraq’s foreign debts and war reparations at more than $350 billion. Clearly, as the 1997 financial/currency crises of Asia, the 1998 currency collapse of Russia, and the 2001–2002 default of Argentina have shown, too much international debt, along with unstable economies and currencies, can cause massive financial losses and problems for the world’s MNCs.

Although developing countries have become a major borrowing group in recent years, the industrialized nations also continue to borrow actively in international markets. Included in the latter group’s borrowings are the funds obtained by multinational companies. The multinationals use the Euromarket to raise additional funds as well as to invest excess cash. Both Eurocurrency and Eurobond markets are extensively used by MNCs.

REVIEW QUESTIONS

18–1 What are the three important international trading blocs? What is the European Union and what is its single new unit of currency? What is GATT? What is the WTO?
What is a joint venture? Why is it often essential to use this arrangement? What effect do joint-venture laws and restrictions have on the operation of foreign-based subsidiaries?

From the point of view of a U.S.-based MNC, what key tax factors need to be considered? What are unitary tax laws?

Discuss the major reasons for the growth of the Euromarket. What is an offshore center? Name the major participants in the Euromarket.

Financial Statements

Several features differentiate internationally based reports from domestically oriented financial statements. Among these are the issues of consolidation, translation of individual accounts, and overall reporting of international profits.

Consolidation

At the present time, U.S. tax rules require the consolidation of financial statements of subsidiaries according to the percentage of ownership by the parent company. Table 18.2 illustrates this point. As indicated, the regulations range from a one-line income-item reporting of dividends to a pro rata inclusion of profits and losses to a full disclosure in the balance sheet and income statement.

Translation of Individual Accounts

Unlike domestic items in financial statements, international items require translation back into U.S. dollars. Since December 1982, all financial statements of U.S. multinationals have had to conform to Statement No. 52 issued by the Financial Accounting Standards Board (FASB). The basic rules of FASB No. 52 are given in Figure 18.1.

### Table 18.2

<table>
<thead>
<tr>
<th>Beneficial ownership by parent in subsidiary</th>
<th>Consolidation for financial reporting purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–19%</td>
<td>Dividends as received</td>
</tr>
<tr>
<td>20–49%</td>
<td>Pro rata inclusions of profits and losses</td>
</tr>
<tr>
<td>50–100%</td>
<td>Full consolidation</td>
</tr>
</tbody>
</table>

*Consolidation may be avoided in the case of some majority-owned foreign operations if the parent can convince its auditors that it does not have control of the subsidiaries or if there are substantial restrictions on the repatriation of cash.

Under FASB No. 52, the current-rate method is implemented in a two-step process. First, each subsidiary’s balance sheet and income statement are measured in terms of the functional currency by using generally accepted accounting principles (GAAP). That is, foreign-currency elements are translated by each subsidiary into the functional currency—the currency of the host country in which a subsidiary primarily generates and expends cash and in which its accounts are maintained before financial statements are submitted to the parent for consolidation.

In the second step, the functional-currency-denominated financial statements of the foreign subsidiary are translated into the parent’s currency. This is done using the all-current-rate method, which requires the translation of all balance sheet items at the closing rate and all income statement items at average rates.

Each of these steps can result in certain gains or losses. The first step can lead to transaction (cash) gains or losses. Whether realized or not, these gains or losses are charged directly to current income. The completion of the second step can result in translation (accounting) adjustments, which are excluded from current income. Instead, they are disclosed and charged to a separate component of stockholders’ equity.

### International Profits

Before January 1976, the practice for most U.S. multinationals was to utilize a special account called the reserve account to show “smooth” international profits. Excess international profits due to favorable exchange fluctuations were deposited in this account. Withdrawals were made during periods of high losses stemming from unfavorable exchange movements. The overall result was to display a smooth pattern in an MNC’s international profits.

Between 1976 and 1982, however, FASB No. 8 required that both transaction gains or losses and translation adjustments be included in net income, with separate disclosure of only the aggregate foreign exchange gain or loss. This requirement caused highly visible swings in the reported net earnings of U.S. multinationals. Since the issuance of FASB No. 52, only certain transactional gains or losses are reflected in the income statement.
**REVIEW QUESTION**

18–5 State the rules for consolidation of foreign subsidiaries. Under FASB No. 52, what are the translation rules for financial statement accounts?

**18.3 Risk**

The concept of risk clearly applies to international investments as well as to purely domestic ones. However, MNCs must take into account additional factors, including both exchange rate and political risks.

**Exchange Rate Risks**

Because multinational companies operate in many different foreign markets, portions of these firms’ revenues and costs are based on foreign currencies. To understand the exchange rate risk caused by varying exchange rates between two currencies, we examine the relationships that exist among various currencies, the causes of exchange rate changes, and the impact of currency fluctuations.

**Relationships Among Currencies**

Since the mid-1970s, the major currencies of the world have had a floating—as opposed to a fixed—relationship with respect to the U.S. dollar and to one another. Among the currencies regarded as being major (or “hard”) currencies are the British pound sterling (£), the European Union euro, the Japanese yen (¥), the Canadian dollar (C$), and, of course, the U.S. dollar (US$). The recently adopted euro circulates as a currency among consumers in 12 European countries and is increasingly being used for financial transactions—particularly debt security issues.

The value of two currencies with respect to each other, or their foreign exchange rate, is expressed as follows:

\[
\text{US$1.00} = \text{¥108.37} \\
\text{¥1.00} = \text{US$0.009228}
\]

Because the U.S. dollar has served as the principal currency of international finance for more than 60 years, the usual exchange rate quotation in international markets is given as ¥108.37/US$, where the unit of account is the Japanese yen and the unit of currency being priced is one U.S. dollar. In this case, the dollar is the currency that is actually being priced. Expressing the exchange rate as US$0.009228/¥ would indicate a dollar price for the Japanese yen.

For the major currencies, the existence of a floating relationship means that the value of any two currencies with respect to each other is allowed to fluctuate on a daily basis. Conversely, many of the nonmajor currencies of the world try to maintain a fixed (or semifixed) relationship with respect to one of the major currencies, a combination (basket) of major currencies, or some type of international foreign exchange standard.

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**Definitions**

- **exchange rate risk**: The risk caused by varying exchange rates between two currencies.
- **foreign exchange rate**: The value of two currencies with respect to each other.
- **floating relationship**: The fluctuating relationship of the values of two currencies with respect to each other.
- **fixed (or semifixed) relationship**: The constant (or relatively constant) relationship of a currency to one of the major currencies, a combination (basket) of major currencies, or some type of international foreign exchange standard.
On any given day, the relationship between any two of the major currencies will contain two sets of figures. One reflects the **spot exchange rate**—the rate on that day. The other indicates the **forward exchange rate**—the rate at some specified future date. The foreign exchange rates given in Figure 18.2 illustrate these concepts. For instance, the figure shows that on Tuesday, June 29, 2004, the spot rate for the Japanese yen was US$0.009228 (or ¥108.37/US$, as usually stated), and the forward (future) rate was US$0.009240/¥ (or ¥108.23/US$) for 1-month delivery. In other words, on June 29, 2004, one could execute a contract to take delivery of Japanese yen in 1 month at a dollar price of US$0.009240/¥. Forward rates are also available for 3-month and 6-month contracts. For all such contracts, the agreements and signatures are completed on, say, June 29, 2004, but the actual exchange of dollars and Japanese yen between buyers and sellers will take place on the future date (say, 1 month later).

Figure 18.2 also illustrates the differences between floating and fixed currencies. All the major currencies previously mentioned have spot and forward rates.

---

**Figure 18.2 Exchange Rates (Tuesday, June 29, 2004)**

<table>
<thead>
<tr>
<th>Currency (Peso)</th>
<th>Spot Exchange Rate</th>
<th>Forward Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>90.71/1 US$</td>
<td>90.90/1 US$</td>
</tr>
<tr>
<td>New Zealand</td>
<td>.6318/1 US$</td>
<td>.6341/1 US$</td>
</tr>
<tr>
<td>Norway (Krone)</td>
<td>.1487/1 US$</td>
<td>.1490/1 US$</td>
</tr>
<tr>
<td>Pakistan (Rupe)</td>
<td>.0171/1 US$</td>
<td>.0174/1 US$</td>
</tr>
<tr>
<td>Peru (New Sol)</td>
<td>.2801/1 US$</td>
<td>.2801/1 US$</td>
</tr>
<tr>
<td>Philippines (Peso)</td>
<td>.01771/1 US$</td>
<td>.01781/1 US$</td>
</tr>
<tr>
<td>Poland (Zloty)</td>
<td>.2469/1 US$</td>
<td>.2469/1 US$</td>
</tr>
<tr>
<td>Russia (Ruble)</td>
<td>.0344/1 US$</td>
<td>.0344/1 US$</td>
</tr>
<tr>
<td>Saudi Arabia (Riyal)</td>
<td>.2666/1 US$</td>
<td>.2666/1 US$</td>
</tr>
<tr>
<td>Singapore (Dollar)</td>
<td>.5126/1 US$</td>
<td>.5126/1 US$</td>
</tr>
<tr>
<td>Slovak Rep. (Koruna)</td>
<td>.01024/1 US$</td>
<td>.01024/1 US$</td>
</tr>
<tr>
<td>South Africa (Rand)</td>
<td>.0157/1 US$</td>
<td>.0157/1 US$</td>
</tr>
<tr>
<td>South Korea (Won)</td>
<td>.0000677/1 US$</td>
<td>.0000677/1 US$</td>
</tr>
<tr>
<td>Sweden (Krona)</td>
<td>.1235/1 US$</td>
<td>.1235/1 US$</td>
</tr>
<tr>
<td>Switzerland (Franc)</td>
<td>.7900/1 US$</td>
<td>.7900/1 US$</td>
</tr>
<tr>
<td>Taiwan (New Dollar)</td>
<td>.00921/1 US$</td>
<td>.00921/1 US$</td>
</tr>
<tr>
<td>Thailand (Baht)</td>
<td>.0246/1 US$</td>
<td>.0246/1 US$</td>
</tr>
<tr>
<td>Turkey (Lira)</td>
<td>.0000067/1 US$</td>
<td>.0000067/1 US$</td>
</tr>
<tr>
<td>U.K. (Pound)</td>
<td>1.5705/1 US$</td>
<td>1.5705/1 US$</td>
</tr>
<tr>
<td>United Arab Emirates (Dirham)</td>
<td>.1772/1 US$</td>
<td>.1772/1 US$</td>
</tr>
<tr>
<td>United Kingdom (Pound)</td>
<td>1.2683/1 US$</td>
<td>1.2683/1 US$</td>
</tr>
<tr>
<td>Uruguay (Peso)</td>
<td>.0363/1 US$</td>
<td>.0363/1 US$</td>
</tr>
<tr>
<td>Venezuela (Bolivar)</td>
<td>.00521/1 US$</td>
<td>.00521/1 US$</td>
</tr>
</tbody>
</table>

with respect to the U.S. dollar. Moreover, a comparison of the exchange rates prevailing on Tuesday, June 29, 2004, versus those on Monday, June 28, 2004, indicates that the floating major currencies (currencies such as the Japanese yen and Swiss franc that float in relation to the U.S. dollar) experienced changes in rates. Other currencies, such as the Chinese renminbi (yuan) and Uruguay’s peso, do not fluctuate as much on a daily basis with respect to either the U.S. dollar or the currency to which they are pegged. That is, those currencies have very limited movements with respect to either the U.S. dollar or other currencies.

A final point to note is the concept of changes in the value of a currency with respect to the U.S. dollar or another currency. For the floating currencies, changes in the value of foreign exchange rates are called appreciation or depreciation. For example, Figure 18.2 shows that the value of the Japanese yen depreciated from ¥107.90/US$ on Monday to ¥108.37/US$ on Tuesday. In other words, it took more yen to buy one U.S. dollar on Tuesday than it did on Monday. It is also correct to say that the dollar appreciated from US$0.009268/¥ on Monday to US$0.009228/¥ on Tuesday. For the fixed currencies, changes in values are called official revaluation or devaluation, but these terms have the same meanings as appreciation and depreciation, respectively.

What Causes Exchange Rates to Change?
Although several economic and political factors influence foreign exchange rate movements, by far the most important explanation for long-term changes in exchange rates is a differing inflation rate between two countries. Countries that experience high inflation rates will see their currencies decline in value (depreciate) relative to the currencies of countries with lower inflation rates.

Assume that the current exchange rate between the United States and the new nation of Farland is 2 Farland guineas (FG) per U.S. dollar, FG 2.00/US$, which is also equal to $0.50/FG. This exchange rate means that a basket of goods worth $100.00 in the United States sells for $100.00 × FG 2.00/US$ = FG 200.00 in Farland, and vice versa (goods worth FG 200.00 in Farland sell for $100.00 in the United States).

Now assume that inflation is running at a 25% annual rate in Farland but at only a 2% annual rate in the United States. In one year, the same basket of goods will sell for 1.25 × FG 200.00 = FG 250.00 in Farland, and for 1.02 × $100.00 = $102.00 in the United States. These relative prices imply that in 1 year, FG 250.00 will be worth $102.00, so the exchange rate in 1 year should change to FG 250.00/$102.00 = FG 2.45/US$, or $0.41/FG. In other words, the Farland guinea will depreciate from FG 2.00/US$ to FG 2.45/US$, while the dollar will appreciate from $0.50/FG to $0.41/FG.

This simple example can also predict what the level of interest rates will be in the two countries. To be enticed to save money, an investor must be offered a return that exceeds the country’s inflation rate—otherwise, there would be no reason to forego the pleasure of spending money (consuming) today because inflation would make that money less valuable 1 year from now. Let’s assume that this real rate of interest is 3 percent per year in both Farland and the United States. Using Equation 6.1 (page 279), we can now reason that the nominal rate...
of interest—quoted market rate, not adjusted for risk—will be approximately equal to the real rate plus the inflation rate in each country, or \( 3 + 25 = 28 \) percent in Farland and \( 3 + 2 = 5 \) percent in the United States.2

Impact of Currency Fluctuations

Multinational companies face exchange rate risks under both floating and fixed arrangements. The case of floating currencies can be used to illustrate these risks. Consider the U.S. dollar–U.K. British pound relationship; note that the forces of international supply and demand, as well as economic and political elements, help to shape both the spot and the forward rates between these two currencies. Because the MNC cannot control much (or most) of these “outside” elements, the company faces potential changes in exchange rates. These changes can, in turn, affect the MNC’s revenues, costs, and profits as measured in U.S. dollars. For fixed-rate currencies, official revaluation or devaluation, like the changes brought about by the market in the case of floating currencies, can affect the MNC’s operations and its dollar-based financial position.

**EXAMPLE**

MNC, Inc., a multinational manufacturer of dental drills, has a subsidiary in Great Britain (the United Kingdom) that at the end of 2006 had the financial statements shown in Table 18.3 on the next page. The figures for the balance sheet and income statement are given in the local currency, British pounds (£). Using an assumed foreign exchange rate of \( £0.70/\text{US}$\$\) for December 31, 2006, MNC has translated the statements into U.S. dollars. For simplicity, it is assumed that all the local figures are expected to remain the same during 2007. As a result, as of January 1, 2007, the subsidiary expects to show the same British pound figures on 12/31/07 as on 12/31/06. However, because of the appreciation in the assumed value of the British pound relative to the dollar, from \( £0.70/\text{US}$\$\) to \( £0.60/\text{US}$\$\), the translated dollar values of the items on the balance sheet, along with the dollar profit value on 12/31/07, are higher than those of the previous year. The changes are due only to fluctuations in the foreign exchange rate. In this case, the British pound appreciated relative to the U.S. dollar, which means that the U.S. dollar depreciated relative to the British pound.

There are additional complexities attached to each individual account in the financial statements. For instance, it is important whether a subsidiary’s debt is all in the local currency, all in U.S. dollars, or in several currencies. Moreover, it is important which currency (or currencies) the revenues and costs are denominated in. The risks shown so far relate to what is called the accounting exposure. In other words, foreign exchange rate fluctuations affect individual accounts in the financial statements.

A different, and perhaps more important, risk element concerns economic exposure, which is the potential impact of foreign exchange rate fluctuations on the firm’s value. Given that all future revenues and thus net profits can be subject

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2. This is an approximation of the true relationship, which is actually multiplicative. The correct formula says that 1 plus the nominal rate of interest, \( k \), is equal to the product of 1 plus the real rate of interest, \( k^* \), and 1 plus the inflation rate, \( IP \); that is, \( 1 + k = (1 + k^*)\times(1 + IP) \). This means that the nominal interest rates for Farland and the United States should be 28.75% and 5.06%, respectively.
to foreign exchange rate changes, it is obvious that the present value of the net profits derived from foreign operations will have, as a part of its total diversifiable risk, an element reflecting appreciation (revaluation) or depreciation (devaluation) of various currencies with respect to the U.S. dollar.

What can the management of MNCs do about these risks? The actions will depend on the attitude of the management toward risk. This attitude, in turn, translates into how aggressively management wants to hedge (that is, protect against) the company’s undesirable positions and exposures. The money markets, the forward (futures) markets, and the foreign-currency options markets can be used—either individually or in combination—to hedge foreign exchange exposures. Further details on certain hedging strategies are described later.

**Political Risks**

Another important risk facing MNCs is political risk. Political risk refers to the implementation by a host government of specific rules and regulations that can result in the discontinuity or seizure of the operations of a foreign company. Political risk is usually manifested in the form of nationalization, expropriation, or confiscation. In general, the assets and operations of a foreign firm are taken over by the host government, usually without proper (or any) compensation.

<table>
<thead>
<tr>
<th>TABLE 18.3</th>
<th>Financial Statements for MNC, Inc.’s British Subsidiary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Translation of Balance Sheet</strong></td>
<td></td>
</tr>
<tr>
<td><strong>12/31/06</strong></td>
<td><strong>12/31/07</strong></td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td>£</td>
</tr>
<tr>
<td>Cash</td>
<td>8.00</td>
</tr>
<tr>
<td>Inventory</td>
<td>60.00</td>
</tr>
<tr>
<td>Plant and equipment (net)</td>
<td>32.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Liabilities and Stockholders’ Equity</strong></td>
<td></td>
</tr>
<tr>
<td>Debt</td>
<td>48.00</td>
</tr>
<tr>
<td>Paid-in capital</td>
<td>40.00</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>12.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Translation of Income Statement</strong></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>600.00</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>550.00</td>
</tr>
<tr>
<td>Operating profits</td>
<td>50.00</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Foreign exchange rate assumed: US$1.00 = £0.70
\textsuperscript{b}Foreign exchange rate assumed: US$1.00 = £0.60

*Note: This example is simplified to show how the balance sheet and income statement are subject to foreign exchange rate fluctuations.*

For the applicable rules on the translation of foreign accounts, review Section 18.2 on international financial statements.
Political risk has two basic paths: macro and micro. Macro political risk means that because of political change, revolution, or the adoption of new policies by a host government, all foreign firms in the country will be subjected to political risk. In other words, no individual country or firm is treated differently; all assets and operations of foreign firms are taken over wholesale. An example of macro political risk occurred after communist regimes came to power in China in 1949 and Cuba in 1959–1960. Micro political risk, on the other hand, refers to the case in which an individual firm, a specific industry, or companies from a particular foreign country are subjected to takeover. Examples include the nationalization by a majority of the oil-exporting countries of the assets of the international oil companies in their territories. Recent years have seen the emergence of a third path to political risk that encompasses “global” events such as terrorism, antiglobalization movements and protests, Internet-based risks, and concerns over poverty, AIDS, and the environment, all of which affect various MNCs’ operations worldwide.

Although political risk can take place in any country—even in the United States—the political instability of many least developed and developing nations generally makes the positions of multinational companies most vulnerable there. At the same time, some of the countries in this group have the most promising markets for the goods and services being offered by MNCs. The main question, therefore, is how to engage in operations and foreign investment in such countries and yet avoid or minimize the potential political risk.

Table 18.4 shows some of the approaches that MNCs may be able to adopt to cope with political risk. The negative approaches are generally used by firms in

### Table 18.4

<table>
<thead>
<tr>
<th>Positive approaches</th>
<th>Negative approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior negotiation of controls and operating contracts</td>
<td>License or patent restrictions under international agreements</td>
</tr>
<tr>
<td>Prior agreement for sale</td>
<td>Direct</td>
</tr>
<tr>
<td>Joint venture with government or local private sector</td>
<td>Control of external raw materials</td>
</tr>
<tr>
<td>Use of locals in management</td>
<td>Control of transportation to (external) markets</td>
</tr>
<tr>
<td>Joint venture with local banks</td>
<td>Control of downstream processing</td>
</tr>
<tr>
<td>Equity participation by middle class</td>
<td>Indirect</td>
</tr>
<tr>
<td>Local sourcing</td>
<td>Control of external markets</td>
</tr>
<tr>
<td>Local retail outlets</td>
<td></td>
</tr>
</tbody>
</table>

**External approaches to minimize loss**

- International insurance or investment guarantees
- Thinyly capitalized firms:
  - Local financing
  - External financing secured only by the local operation

extractive industries such as oil and gas and mining. The external approaches are also of limited use. The best policies MNCs can follow are the positive approaches, which have both economic and political aspects.

In recent years, MNCs have been relying on a variety of complex forecasting techniques whereby “international experts,” using available historical data, predict the chances for political instability in a host country and the potential effects on MNC operations. Events in Afghanistan, Pakistan, India, and Russia, among others, however, point to the limited use of such techniques and tend to reinforce the usefulness of the positive approaches.

A final point relates to the introduction by most host governments in the last two decades of comprehensive sets of rules, regulations, and incentives. Known as national entry control systems, they are aimed at regulating inflows of foreign direct investments involving MNCs. They are designed to extract more benefits from MNCs’ presence by regulating flows of various factors—local ownership, level of exportation, use of local inputs, number of local managers, internal geographic location, level of local borrowing, and the percentages of profits to be remitted and of capital to be repatriated to parent firms. Host countries expect that as MNCs comply with these regulations, the potential for acts of political risk will decline, thus benefiting the MNCs as well.

**REVIEW QUESTIONS**

18–6 Define spot exchange rate and forward exchange rate. Define and compare accounting exposures and economic exposures to exchange rate fluctuations.

18–7 Explain how differing inflation rates between two countries affect their exchange rate over the long term.

18–8 Discuss macro and micro political risk. What is the emerging third path to political risk? Describe some techniques for dealing with political risk.

**18.4 Long-Term Investment and Financing Decisions**

Important long-term aspects of international managerial finance include foreign direct investment, investment cash flows and decisions, capital structure, long-term debt, and equity capital. Here we consider the international dimensions of these topics.

**Foreign Direct Investment**

Foreign direct investment (FDI) is the transfer by a multinational firm of capital, managerial, and technical assets from its home country to a host country. The equity participation on the part of an MNC can be 100 percent (resulting in a wholly owned foreign subsidiary) or less (leading to a joint-venture project with foreign participants). In contrast to short-term, foreign portfolio investments undertaken by individuals and companies (such as internationally diversified mutual funds), FDI involves equity participation, managerial control, and day-to-
day operational activities on the part of MNCs. Therefore, FDI projects will be subjected not only to business, financial, inflation, and exchange rate risks (as would foreign portfolio investments) but also to the additional element of political risk.

For several decades, U.S.-based MNCs dominated the international scene in terms of both the flow and the stock of FDI. The total FDI stock of U.S.-based MNCs, for instance, increased from $7.7 billion in 1929 to more than $1,475 billion at the end of 2002. Since the 1970s, though, their global presence is being challenged by MNCs based in Western Europe, Japan, and other developed and developing nations. In fact, even the “home” market of U.S. multinationals is being challenged by foreign firms. For instance, in 1960, FDI into the United States amounted to only 11.5 percent of U.S. investment overseas. By the end of 1996, the book value of FDI into the United States, at $1,239 billion, was comparable to the figure of $1,245 billion for U.S. FDI abroad in 2000. The market value of U.S. FDI at year-end 2000—$2,468 billion—was also comparable to (though smaller than) the $2,737 billion market value of FDI into the United States at that time.

**Investment Cash Flows and Decisions**

Measuring the amount invested in a foreign project, its resulting cash flows, and the associated risk is difficult. The returns and NPVs of such investments can significantly vary from the subsidiary’s and parent’s points of view. Therefore, several factors that are unique to the international setting need to be examined when one is making long-term investment decisions.

First, elements related to a parent company’s investment in a subsidiary and the concept of taxes must be considered. For example, in the case of manufacturing investments, questions may arise as to the value of the equipment a parent may contribute to the subsidiary. Is the value based on market conditions in the parent country or in the local host economy? In general, the market value in the host country is the relevant “price.”

The existence of different taxes—as pointed out earlier—can complicate measurement of the cash flows to be received by the parent because different definitions of taxable income can arise. There are still other complications when it comes to measuring the actual cash flows. From a parent firm’s viewpoint, the cash flows are those that are repatriated from the subsidiary. In some countries, however, such cash flows may be totally or partially blocked. Obviously, depending on the life of the project in the host country, the returns and NPVs associated with such projects can vary significantly from the subsidiary’s and the parent’s point of view. For instance, for a project of only 5 years’ duration, if all yearly cash flows are blocked by the host government, the subsidiary may show a “normal” or even superior return and NPV, although the parent may show no return at all. For a project of longer life, even if cash flows are blocked for the first few years, the remaining years’ cash flows can contribute to the parent’s returns and NPV.

Finally, there is the issue of risk attached to international cash flows. The three basic types of risks are (1) business and financial risks, (2) inflation and exchange rate risks, and (3) political risks. The first category reflects the type of industry the subsidiary is in as well as its financial structure. More details on financial risks are presented later. As for the other two categories, we have already
discussed the risks of having investments, profits, and assets/liabilities in different currencies and the potential impacts of political risks.

The presence of the three types of risks will influence the discount rate to be used when evaluating international cash flows. The basic rule is this: The local cost of equity capital (applicable to the local business and financial environments within which a subsidiary operates) is the starting discount rate. To this rate, the risks stemming from exchange rate and political factors would be added; and from it, the benefits reflecting the parent’s lower capital costs would be subtracted.

**Capital Structure**

Both theory and empirical evidence indicate that the capital structures of multinational companies differ from those of purely domestic firms. Furthermore, differences are observed among the capital structures of MNCs domiciled in various countries. Several factors tend to influence the capital structures of MNCs.

**International Capital Markets**

MNCs, unlike smaller, domestic firms, have access to the Euromarket (discussed earlier) and the variety of financial instruments available there. Because of their access to the international bond and equity markets, MNCs may have lower long-term financing costs, which result in differences between the capital structures of MNCs and those of purely domestic companies. Similarly, MNCs based in different countries and regions may have access to different currencies and markets, resulting in variances in capital structures for these multinationals.

**International Diversification**

It is well established that MNCs, in contrast to domestic firms, can achieve further risk reduction in their cash flows by diversifying internationally. International diversification may lead to varying degrees of debt versus equity. Empirically, the evidence on debt ratios is mixed. Some studies have found MNCs’ debt proportions to be higher than those of domestic firms. Other studies have concluded the opposite, citing imperfections in certain foreign markets, political risk factors, and complexities in the international financial environment that cause higher agency costs of debt for MNCs.

**Country Factors**

A number of studies have concluded that certain factors unique to each host country can cause differences in capital structures. These factors include legal, tax, political, social, and financial aspects, as well as the overall relationship between the public and private sectors. Owing to these factors, differences have been found not only among MNCs based in various countries but also among the foreign subsidiaries of an MNC. However, because no one capital structure is ideal for all MNCs, each multinational has to consider a set of global and domestic factors when deciding on the appropriate capital structure for both the overall corporation and its subsidiaries.

Understanding country factors can help financial managers make better-informed decisions. As the *In Practice* box on the facing page discusses, one way to improve one’s ability to understand how business is conducted in other countries is to take an overseas assignment.
Long-Term Debt

As noted earlier, multinational companies have access to a variety of international financial instruments. International bonds are among the most widely used, so we will begin by focusing on them. Next, we discuss the role of international financial institutions in underwriting such instruments. Finally, we consider the use of various techniques by MNCs to change the structure of their long-term debt.

International Bonds

In general, an international bond is one that is initially sold outside the country of the borrower and is often distributed in several countries. When a bond is sold primarily in the country of the currency in which it is denominated, it is
called a foreign bond. For example, an MNC based in Germany might float a foreign bond issue in the British capital market underwritten by a British syndicate and denominated in British pounds. When an international bond is sold primarily in countries other than the country of the currency in which the issue is denominated, it is called a Eurobond. Thus an MNC based in the United States might float a Eurobond in several European capital markets, underwritten by an international syndicate and denominated in U.S. dollars.

The U.S. dollar and the euro are the most frequently used currencies for Eurobond issues, with the euro rapidly increasing in popularity relative to the U.S. dollar. In the foreign bond category, the U.S. dollar and the euro are major choices. Low interest rates, the general stability of the currency, and the overall efficiency of the European Union’s capital markets are among the primary reasons for the growing popularity of the euro.

Eurobonds are much more popular than foreign bonds. These instruments are heavily used, especially in relation to Eurocurrency loans in recent years, by major market participants, including U.S. corporations. The so-called equity-linked Eurobonds (that is, Eurobonds convertible to equity), especially those offered by a number of U.S. firms, have found strong demand among Euromarket participants. It is expected that more of these innovative types of instruments will emerge on the international scene in the coming years.

A final point concerns the levels of interest rates in international markets. In the case of foreign bonds, interest rates are usually directly correlated with the domestic rates prevailing in the respective countries. For Eurobonds, several interest rates may be influential. For instance, for a Eurodollar bond, the interest rate will reflect several different rates, most notably the U.S. long-term rate, the Eurodollar rate, and long-term rates in other countries.

The Role of International Financial Institutions

For foreign bonds, the underwriting institutions are those that handle bond issues in the respective countries in which such bonds are issued. For Eurobonds, a number of financial institutions in the United States, Western Europe, and Japan form international underwriting syndicates. The underwriting costs for Eurobonds are comparable to those for bond flotation in the U.S. domestic market. Although U.S. institutions used to dominate the Eurobond scene, recent economic and financial strengths exhibited by some Western European (especially German) financial firms have led to an erosion in that dominance. Since 1986, a number of European firms have shared with U.S. firms the top positions in terms of acting as lead underwriters of Eurobond issues. However, U.S. investment banks continue to dominate most other international security issuance markets—such as international equity, medium-term note, syndicated loan, and commercial paper markets. U.S. corporations account for well over half of the worldwide securities issues made each year.

To raise funds through international bond issues, many MNCs establish their own financial subsidiaries. Many U.S.-based MNCs, for example, have created subsidiaries in the United States and Western Europe, especially in Luxembourg. Such subsidiaries can be used to raise large amounts of funds in “one move,” the funds being redistributed wherever MNCs need them. (Special tax rules applicable to such subsidiaries also make them desirable to MNCs.)
Changing the Structure of Debt

As will be more fully explained later, MNCs can use hedging strategies to change the structure characteristics of their long-term assets and liabilities. For instance, multinationals can utilize interest rate swaps to obtain a desired stream of interest payments (for example, fixed rate) in exchange for another (for example, floating rate). With currency swaps, they can exchange an asset/liability denominated in one currency (for example, the U.S. dollar) for another (for example, the British pound). The use of these tools allows MNCs to gain access to a broader set of markets, currencies, and maturities, thus leading to both cost savings and a means of restructuring the existing assets/liabilities. There has been significant growth in such use during the last few years, and this trend is expected to continue.

Equity Capital

Here we look at how multinational companies can raise equity capital abroad. They can sell their shares in international capital markets, or they can use joint ventures, which are sometimes required by the host country.

Equity Issues and Markets

One means of raising equity funds for MNCs is to have the parent’s stock distributed internationally and owned by stockholders of different nationalities. Despite some advancements made in recent years that have allowed numerous MNCs to simultaneously list their respective stocks on a number of exchanges, the world’s equity markets continue to be dominated by distinct national stock exchanges (such as the New York, London, and Tokyo exchanges). At the end of 2002, for example, a rather small portion of each of the world’s major stock exchanges consisted of “foreign company” listings. Many commentators agree that most MNCs would benefit enormously from an international stock market that had uniform rules and regulations governing the major stock exchanges. Unfortunately, it will likely be many years before such a market becomes a reality.

Even with the full financial integration of the European Union, some European stock exchanges continue to compete with each other. Others have called for more cooperation in forming a single market capable of competing with the New York and Tokyo exchanges. As noted above, from the multinationals’ perspective, the most desirable outcome would be to have uniform international rules and regulations with respect to all the major national stock exchanges. Such uniformity would allow MNCs unrestricted access to an international equity market paralleling the international currency and bond markets.

Joint Ventures

The basic aspects of foreign ownership of international operations were discussed earlier. Worth emphasizing here is that certain laws and regulations enacted by a number of host countries require MNCs to maintain less than 50 percent ownership in their subsidiaries in those countries. For a U.S.-based MNC, for example, establishing foreign subsidiaries in the form of joint ventures means that a certain portion of the firm’s total international equity stock is (indirectly) held by foreign owners.
In establishing a foreign subsidiary, an MNC may wish to use as little equity and as much debt as possible, with the debt coming from local sources in the host country or the MNC itself. Each of these actions can be supported: The use of local debt can be a good protective measure to lessen the potential impacts of political risk. Because local sources are involved in the capital structure of a subsidiary, there may be fewer threats from local authorities in the event of changes in government or the imposing of new regulations on foreign business.

In support of the other action—having more MNC-based debt in a subsidiary’s capital structure—many host governments are less restrictive toward intra-MNC interest payments than toward intra-MNC dividend remittances. The parent firm therefore may be in a better position if it has more MNC-based debt than equity in the capital structure of its subsidiaries.

**REVIEW QUESTIONS**

18–9 Indicate how NPV can differ depending on whether it is measured from the parent MNC’s point of view or from that of the foreign subsidiary, when cash flows may be blocked by local authorities.

18–10 Briefly discuss some of the international factors that cause the capital structures of MNCs to differ from those of purely domestic firms.

18–11 Describe the difference between foreign bonds and Eurobonds. Explain how each is sold, and discuss the determinant(s) of their interest rates.

18–12 What are the long-run advantages of having more local debt and less MNC-based equity in the capital structure of a foreign subsidiary?

### 18.5 Short-Term Financial Decisions

In international operations, the usual domestic sources of short-term financing, along with other sources, are available to MNCs. Included are accounts payable, accruals, bank and nonbank sources in each subsidiary’s local environment, and the Euromarket. Our emphasis here is on the “foreign” sources.

The local economic market is a basic source of both short- and long-term financing for a subsidiary of a multinational company. Moreover, the subsidiary’s borrowing and lending status, relative to a local firm in the same economy, can be superior, because the subsidiary can rely on the potential backing and guarantee of its parent MNC. One drawback, however, is that most local markets and local currencies are regulated by local authorities. A subsidiary may ultimately choose to turn to the Euromarket and take advantage of borrowing and investing in an unregulated financial forum.

The Euromarket offers nondomestic long-term financing opportunities through Eurobonds, which were discussed in Chapter 6. Short-term financing opportunities are available in Eurocurrency markets. The forces of supply and demand are among the main factors determining exchange rates in Eurocurrency markets. Each currency’s normal interest rate is influenced by economic policies pursued by the respective “home” government. For example, the interest rates offered in the Euromarket on the U.S. dollar are greatly affected by the prime rate inside the United States, and the dollar’s exchange rates with other major curren-
cies are influenced by the supply and demand forces in such markets (and in response to interest rates).

Unlike borrowing in the domestic markets, where only one currency and a nominal interest rate are involved, financing activities in the Euromarket can involve several currencies and both nominal and effective interest rates. Effective interest rates are equal to nominal rates plus (or minus) any forecast appreciation (or depreciation) of a foreign currency relative to the currency of the MNC parent. Stated differently, the figures for effective rates are derived by adjusting the nominal interest rates for the impact of foreign-currency movements on both the principal and interest amounts. Equation 18.1 can be used to calculate the effective interest rate for a specific currency \( E \), given the nominal interest rate for the currency \( N \) and its forecast percentage change \( F \).

\[
E = N + F + (N \times F)
\]  

(18.1)

An example will illustrate the application and interpretation of this relationship.

**EXAMPLE**

A multinational plastics company, International Molding, has subsidiaries in Switzerland (local currency, Swiss franc, Sf) and Japan (local currency, Japanese yen, ¥). On the basis of each subsidiary’s forecast operations, the short-term financial needs (in equivalent U.S. dollars) are as follows:

- Switzerland: $80 million excess cash to be invested (lent)
- Japan: $60 million funds to be raised (borrowed)

On the basis of all the available information, the parent firm has provided each subsidiary with the figures given in the table below for exchange rates and interest rates. (The figures for the effective rates shown are derived using Equation 18.1.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Currency</th>
<th>US$</th>
<th>Sf</th>
<th>¥</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot exchange rates</td>
<td></td>
<td>Sf 1.27/US$</td>
<td>¥108.37/US$</td>
<td></td>
</tr>
<tr>
<td>Forecast percent change</td>
<td></td>
<td>-2.0%</td>
<td>+1.0%</td>
<td></td>
</tr>
<tr>
<td>Interest rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euromarket</td>
<td></td>
<td>3.30%</td>
<td>4.10%</td>
<td>1.50%</td>
</tr>
<tr>
<td>Domestic</td>
<td></td>
<td>3.00%</td>
<td>3.80%</td>
<td>1.70%</td>
</tr>
<tr>
<td>Effective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euromarket</td>
<td></td>
<td>3.30%</td>
<td>2.01%</td>
<td>2.51%</td>
</tr>
<tr>
<td>Domestic</td>
<td></td>
<td>3.00%</td>
<td>1.72%</td>
<td>2.71%</td>
</tr>
</tbody>
</table>

From the MNC’s point of view, the effective rates of interest, which take into account each currency’s forecast percentage change (appreciation or depreciation) relative to the U.S. dollar, are the main considerations in investment and borrowing decisions. (It is assumed here that because of local regulations, a subsidiary is not permitted to use the domestic market of any other subsidiary.) The relevant question is where funds should be invested and borrowed.

For investment purposes, the highest available effective rate of interest is 3.30% in the US$ Euromarket. Therefore, the Swiss subsidiary should invest the
$80 million in Swiss francs in U.S. dollars. To raise funds, the cheapest source open to the Japanese subsidiary is the 2.01% effective rate for the Swiss franc in the Euromarket. The subsidiary should therefore raise the $60 million in Swiss francs in the Euromarket. These two transactions will result in the most revenues and least costs, respectively.

Several points should be made with respect to the preceding example. First, this is a simplified case of the actual workings of the Eurocurrency markets. The example ignores taxes, intersubsidiary investing and borrowing, and periods longer or shorter than a year. Nevertheless, it shows how the existence of many currencies can provide both challenges and opportunities for MNCs. Next, the focus has been solely on accounting values; of greater importance would be the impact of these actions on market value. Finally, it is important to note the following details about the figures presented. The forecast percentage change data are those normally supplied by the MNC’s international financial managers. Management may instead want a range of forecasts, from the most likely to the least likely. In addition, the company’s management is likely to take a specific position in terms of its response to any remaining exchange rate exposures. If any action is to be taken, certain amounts of one or more currencies will be borrowed and then invested in other currencies in the hope of realizing potential gains to offset potential losses associated with the exposures.

Cash Management

In its international cash management, a multinational firm can respond to exchange rate risks by protecting (hedging) its undesirable cash and marketable securities exposures or by making certain adjustments in its operations. The former approach is more applicable in responding to accounting exposures, the latter to economic exposures. Each of these two approaches is examined here.

Hedging Strategies

Hedging strategies are techniques used to offset or protect against risk. In international cash management, these strategies include actions such as borrowing or lending in different currencies; undertaking contracts in the forward, futures, and/or options markets; and swapping assets/liabilities with other parties. Table 18.5 briefly outlines some of the major hedging tools available to MNCs. By far, the most commonly used technique is hedging with a forward contract.

To demonstrate how you can use a forward contract to hedge exchange rate risk, assume you are a financial manager for Boeing Company, which has just booked a sale of three airplanes worth $360 million to Japan’s All Nippon Airways. The sale is denominated in Japanese yen, and the current spot exchange rate is ¥108.37/US$. Therefore, you have priced this airplane sale at ¥39.0132 billion. If delivery were to occur today, there would be no foreign exchange risk. However, delivery and payment will not occur for 90 days. If this transaction is not hedged, Boeing will be exposed to a significant risk of loss if the Japanese yen depreciates over the next 3 months.

Suppose that between now and the delivery date, the dollar appreciates against the yen from ¥108.37/US$ to ¥110.25/US$. Upon delivery of the airplanes, the agreed-upon ¥39.0132 billion will then be worth only US$353.861
million \[(¥39.0132 \text{ billion}) \div (¥110.25/\text{US$})\], rather than the US$360 million you originally planned for—a foreign exchange loss of more than US$6.1 million. If, instead of remaining unhedged, you had sold the ¥39.0132 billion forward 3 months earlier at the 90-day forward rate of ¥107.92/US$ offered by your bank, you could have locked in a net dollar sale price of US$361.501 million \[(¥39.0132 \text{ billion}/\text{US$}) \div (¥107.92/\text{US$})\], realizing a foreign exchange gain of more than $1.5 million. Clearly, this is a better alternative. Of course, if you had remained unhedged, and the Japanese yen had appreciated beyond ¥107.92/US$, your firm would have experienced an even larger foreign exchange profit—but most MNCs prefer to make profits through sales of goods and services rather than by speculating on the direction of exchange rates.
Adjustments in Operations

In responding to exchange rate fluctuations, MNCs can give their international cash flows some protection through appropriate adjustments in assets and liabilities. Two routes are available to a multinational company. The first centers on the operating relationships that a subsidiary of an MNC maintains with other firms—third parties. Depending on management’s expectation of a local currency’s position, adjustments in operations would involve the reduction of liabilities if the currency is appreciating or the reduction of financial assets if it is depreciating. For example, if a U.S.-based MNC with a subsidiary in Mexico expects the Mexican currency to appreciate in value relative to the U.S. dollar, local customers’ accounts receivable would be increased and accounts payable would be reduced if at all possible. Because the dollar is the currency in which the MNC parent will have to prepare consolidated financial statements, the net result in this case would be favorably to increase the Mexican subsidiary’s resources in local currency. If the Mexican currency were instead expected to depreciate, the local customers’ accounts receivable would be reduced and accounts payable would be increased, thereby reducing the Mexican subsidiary’s resources in the local currency.

The second route focuses on the operating relationship a subsidiary has with its parent or with other subsidiaries within the same MNC. In dealing with exchange rate risks, a subsidiary can rely on intra-MNC accounts. Specifically, undesirable exchange rate exposures can be corrected to the extent that the subsidiary can take the following steps:

1. In appreciation-prone countries, intra-MNC accounts receivable are collected as soon as possible, and payment of intra-MNC accounts payable is delayed as long as possible.
2. In depreciation-prone countries, intra-MNC accounts receivable are collected as late as possible, and intra-MNC accounts payable are paid as soon as possible.

This technique is known as “leading and lagging” or simply as “leads and lags.”

Assume that a U.S.-based parent company, American Computer Corporation (ACC), both buys parts from and sells parts to its wholly owned Mexican subsidiary, Tijuana Computer Company (TCC). Assume further that ACC has accounts payable of $10,000,000 that it is scheduled to pay TCC in 30 days and, in turn, has accounts receivable of (Mexican peso) MP 115.00 million due from TCC within 30 days. Because today’s exchange rate is MP 11.50/US$, the accounts receivable are also worth $10,000,000. Therefore, parent and subsidiary owe each other equal amounts (though in different currencies), and both are payable in 30 days, but because TCC is a wholly owned subsidiary of ACC, the parent has complete discretion over the timing of these payments.

If ACC believes that the Mexican peso will depreciate from MP 11.50/US$ to, say, MP 12.75/US$ during the next 30 days, the combined companies can profit by collecting the weak currency (MP) debt immediately but delaying payment of the strong currency (US$) debt for the full 30 days allowed. If parent and subsidiary do this, and the peso depreciates as predicted, the net result is that the MP 115.00 million payment from TCC to ACC is made immediately and is safely converted into $10,000,000 at today’s exchange rate, whereas the delayed
$10,000,000 payment from ACC to TCC will be worth MP 127.50 million [($10 million) × (MP 12.75/US$)]. Thus the Mexican subsidiary will experience a foreign exchange trading profit of MP 12.50 million (MP 127.50 million – MP 115.00 million), whereas the U.S. parent receives the full amount ($10 million) due from TCC and therefore is unharmed.

As this example suggests, the manipulation of an MNC’s consolidated intra-company accounts by one subsidiary generally benefits one subsidiary (or the parent) while leaving the other subsidiary (or the parent) unharmed. The exact degree and direction of the actual manipulations, however, may depend on the tax status of each country. The MNC obviously would want to have the exchange rate losses in the country with the higher tax rate. Finally, changes in intra-MNC accounts can also be subject to restrictions and regulations put forward by the respective host countries of various subsidiaries.

**Credit and Inventory Management**

Multinational firms based in different countries compete for the same global export markets. Therefore, it is essential that they offer attractive credit terms to potential customers. Increasingly, however, the maturity and saturation of developed markets is forcing MNCs to maintain and increase revenues by exporting and selling a higher percentage of their output to developing countries. Given the risks associated with the latter group of buyers, as partly evidenced by their lack of a major (hard) currency, the MNC must use a variety of tools to protect such revenues. In addition to the use of hedging and various asset and liability adjustments (described earlier), MNCs should seek the backing of their respective governments in both identifying target markets and extending credit. Multinationals based in a number of Western European nations and those based in Japan currently benefit from extensive involvement of government agencies that provide them with the needed service and financial support. For U.S.-based MNCs, government agencies such as the Export-Import Bank currently do not provide a comparable level of support.

In terms of inventory management, MNCs must consider a number of factors related to both economics and politics. In addition to maintaining the appropriate level of inventory in various locations around the world, a multinational firm is compelled to deal with exchange rate fluctuations, tariffs, nontariff barriers, integration schemes such as the EU, and other rules and regulations. Politically, inventories could be subjected to wars, expropriations, blockages, and other forms of government intervention.

**REVIEW QUESTIONS**

18–13 What is the Eurocurrency market? What are the main factors determining foreign exchange rates in that market? Differentiate between the nominal interest rate and the effective interest rate in this market.

18–14 Discuss the steps to be followed in adjusting a subsidiary’s accounts relative to third parties when that subsidiary’s local currency is expected to appreciate in value in relation to the currency of the parent MNC.
Outline the changes to be undertaken in *intra-MNC accounts* if a subsidiary’s currency is expected to *depreciate* in value relative to the currency of the parent MNC.

### 18.6 Mergers and Joint Ventures

The motives for domestic mergers—growth or diversification, synergy, fund raising, increased managerial skill or technology, tax considerations, increased ownership liquidity, and defense against takeover—are all applicable to MNCs’ international mergers and joint ventures. Several additional points should also be made.

First, international mergers and joint ventures, especially those involving European firms acquiring assets in the United States, increased significantly beginning in the 1980s. MNCs based in Western Europe, Japan, and North America are numerous. Moreover, a fast-growing group of MNCs has emerged in the past two decades, some based in the so-called newly industrialized countries (including Singapore, South Korea, Taiwan, and China’s Hong Kong), and others operating from emerging nations (such as Brazil, Argentina, Mexico, Israel, China, Malaysia, Thailand, and India). Even though many of these companies were hit hard by recent economic and currency crises (Asia in 1997, Russia in 1998, and Latin America in 2001–present), top firms from these and other countries have been able to survive and even prosper. Additionally, many Western companies have taken advantage of these economies’ weakness to buy into companies that were previously off-limits to foreign investors. This has added further to the number and value of international mergers.

Foreign direct investments in the United States have also gained popularity recently. Most of the foreign direct investors in the United States come from seven countries: the United Kingdom, Canada, France, the Netherlands, Japan, Switzerland, and Germany. The heaviest investments are concentrated in manufacturing, followed by the petroleum and trade/service sectors. Another trend is the current increase in the number of joint ventures between companies based in Japan and firms domiciled elsewhere in the industrialized world, especially U.S.-based MNCs. Although Japanese authorities continue their discussions and debates with other governments regarding Japan’s international trade surpluses as well as perceived trade barriers, mergers and joint ventures continue to take place. In the eyes of some U.S. corporate executives, such business ventures are viewed as a “ticket into the Japanese market” as well as a way to curb a potentially tough competitor.

Developing countries, too, have been attracting foreign direct investments in many industries. Meanwhile, during the last two decades, a number of these nations have adopted specific policies and regulations aimed at controlling the inflows of foreign investments, a major provision being the 49 percent ownership limitation applied to MNCs. Of course, international competition among MNCs has benefited some developing countries in their attempts to extract concessions from the multinationals. However, an increasing number of such nations have shown greater flexibility in their recent dealings with MNCs, as MNCs have become more reluctant to form joint ventures under the stated conditions. Fur-
thermore, it is likely that as more developing countries recognize the need for foreign capital and technology, they will show even greater flexibility in their agreements with MNCs.

A final point relates to the existence of international holding companies. Places such as Liechtenstein and Panama have long been considered promising spots for forming holding companies because of their favorable legal, corporate, and tax environments. International holding companies control many business entities in the form of subsidiaries, branches, joint ventures, and other agreements. For international legal (especially tax-related) reasons, as well as anonymity, such holding companies have become increasingly popular in recent years.

**REVIEW QUESTION**

18–16 What are some of the major reasons for the rapid expansion in international mergers and joint ventures of firms?

**Summary**

**Focus on Value**

The growing interdependence of world markets has increased the importance of international finance in managing the multinational company (MNC). As a result, the financial manager must deal with international issues related to taxes, financial markets, accounting and profit measurement and repatriation, exchange rate risks caused by doing business in more than one currency, political risks, financing (both debt and equity) and capital structure, short-term financing, cash management issues related to hedging and adjustments in operations, and merger and joint-venture opportunities.

The complexity of each of these issues is significantly greater for the multinational firm than for a purely domestic firm. Consequently, the financial manager must approach actions and decisions in the multinational firm using both standard financial tools and techniques and additional procedures that recognize the legal, institutional, and operating differences that exist in the multinational environment. Just as in a purely domestic firm, action should be undertaken only after the financial manager has determined that it will contribute to the parent company’s overall goal of maximizing the owners’ wealth as reflected in its share price.

**Review of Learning Goals**

Understand the major factors that influence the financial operations of multinational companies (MNCs). Important international trading blocs emerged in the 1990s: one in the Americas (primarily the United States, Mexico, and Canada) as a result of NAFTA; the European Union (EU); and the Mercosur Group in South America. The EU is becoming even more competitive as it achieves monetary union and most of its members use the euro as a single currency. Free trade among the largest economic powers is governed by the General...
Setting up operations in foreign countries can entail special problems related to the legal form of business organization chosen, the degree of ownership allowed by the host country, and possible restrictions and regulations on the return of capital and profits. Taxation of multinational companies is a complex issue because of the existence of varying tax rates, differing definitions of taxable income, measurement differences, and tax treaties.

The existence and expansion of dollars held outside the United States have contributed to the development of a major international financial market, the Euromarket. The large international banks, developing and industrialized nations, and multinational companies participate as borrowers and lenders in this market.

Describe the key differences between purely domestic and international financial statements—consolidation, translation of individual accounts, and international profits. Regulations that apply to international operations complicate the preparation of foreign-based financial statements. Rulings in the United States require the consolidation of financial statements of subsidiaries according to the percentage of ownership by the parent in the subsidiary. Individual accounts of subsidiaries must be translated back into U.S. dollars using the procedures outlined in FASB No. 52. This standard also requires that only certain transactional gains or losses from international operations be included in the U.S. parent’s income statement.

Discuss exchange rate risk and political risk, and explain how MNCs manage them. Economic exposure from exchange rate risk results from the existence of different currencies and their impact on the value of foreign operations. Long-term changes in foreign exchange rates result primarily from differing inflation rates in the two countries. The money markets, the forward (futures) markets, and the foreign-currency options markets can be used to hedge foreign exchange exposure. Political risks stem mainly from the implications of political instability for the assets and operations of MNCs. MNCs can employ negative, external, and positive approaches to cope with political risk.

Describe foreign direct investment, investment cash flows and decisions, the MNCs’ capital structure, and the international debt and equity instruments available to MNCs. Foreign direct investment (FDI) involves an MNC’s transfer of capital, managerial, and technical assets from its home country to the host country. The investment cash flows of FDIs are subject to a variety of factors, including taxes in host countries, regulations that may block the repatriation of MNCs’ cash flow, various business and financial risks, and the application of a local cost of capital.

The capital structures of MNCs differ from those of purely domestic firms because of the MNCs’ access to the Euromarket and the financial instruments it offers; their ability to reduce risk in their cash flows through international diversification; and the impact of factors unique to each host country. MNCs can raise long-term debt by issuing international bonds in various currencies. Foreign bonds are sold primarily in the country of the currency of issue; Eurobonds are...
MNCs can raise equity through sale of shares in international capital markets or through joint ventures. In establishing foreign subsidiaries, it may be more advantageous to issue debt than MNC-owned equity.

Discuss the role of the Eurocurrency market in short-term borrowing and investing (lending) and the basics of international cash, credit, and inventory management. Eurocurrency markets allow multinationals to invest (lend) and raise (borrow) short-term funds in a variety of currencies and to protect themselves against exchange rate risk. Effective interest rates, which take into account currency fluctuations, are the main items MNCs consider in making investment and borrowing decisions. MNCs invest in the currency with the highest effective rate and borrow in the currency with the lowest effective rate. MNCs must offer competitive credit terms and maintain adequate inventories to provide timely delivery to foreign buyers. Obtaining the backing of foreign governments is helpful to MNCs in effectively managing credit and inventory.

Review recent trends in international mergers and joint ventures. International mergers and joint ventures, including international holding companies, increased significantly beginning in the 1980s. Special factors affecting these mergers include economic and trade conditions and various regulations imposed on MNCs by host countries.

**Self-Test Problem (Solution in Appendix B)**

- **ST18–1 Tax credits** A U.S.-based MNC has a foreign subsidiary that earns $150,000 before local taxes, with all the after-tax funds to be available to the parent in the form of dividends. The applicable taxes consist of a 32% foreign income tax rate, a foreign dividend withholding tax rate of 8%, and a U.S. tax rate of 34%. Calculate the net funds available to the parent MNC if:
  a. Foreign taxes can be applied as a credit against the MNC’s U.S. tax liability.
  b. No tax credits are allowed.

**Warm-Up Exercises**

- **E18–1** Santana Music is a U.S.-based MNC whose foreign subsidiary had pretax income of $55,000; all after-tax income is available in the form of dividends to the parent company. The local tax rate is 40%, the foreign dividend withholding tax rate is 5%, and the U.S. tax rate is 34%. Compare the net funds available to the parent corporation (a) if foreign taxes can be applied against the U.S. tax liability and (b) if they cannot.
E18–2 Assume that the Mexican peso currently trades at 12 pesos to the U.S. dollar. During the year U.S. inflation is expected to average 3%, while Mexican inflation is expected to average 5%. What is the current value of one peso in terms of U.S. dollars? Given the relative inflation rates, what will the exchange rates be 1 year from now? Which currency is expected to appreciate and which currency is expected to depreciate over the next year?

E18–3 If Like A Lot Corp. borrows yen at a nominal annual interest rate of 2% and during the year the yen appreciates by 10%, what will the effective annual interest rate be for the loan?

E18–4 Carry Trade, Inc., borrows yen when the yen is trading at ¥110/US$. If the nominal annual interest rate of the loan is 3% and at the end of the year the yen trades at ¥120/US$, what is the effective annual interest rate of the loan?

E18–5 Denim Industries can borrow its needed financing for expansion using one of two foreign lending facilities. It can borrow at a nominal annual interest rate of 8% in Mexican pesos or at 3% in Canadian dollars. If the peso is expected to depreciate by 10% and the Canadian dollar is expected to appreciate by 3%, which loan has the lower effective annual interest rate?

Problems

P18–1 Tax credits A U.S.-based MNC has a foreign subsidiary that earns $250,000 before local taxes, with all the after-tax funds to be available to the parent in the form of dividends. The applicable taxes consist of a 33% foreign income tax rate, a foreign dividend withholding tax rate of 9%, and a U.S. tax rate of 34%. Calculate the net funds available to the parent MNC if:
a. Foreign taxes can be applied as a credit against the MNC’s U.S. tax liability.
b. No tax credits are allowed.

P18–2 Translation of financial statements A U.S.-based MNC has a subsidiary in France (local currency, euro, €). The balance sheet and income statement of the subsidiary follow. On 12/31/06, the exchange rate is US$1.20/€. Assume that the local (euro) figures for the statements remain the same on 12/31/07. Calculate the U.S. dollar-translated figures for the two ending time periods, assuming that between 12/31/06 and 12/31/07 the euro has appreciated against the U.S. dollar by 6%.

<table>
<thead>
<tr>
<th>Translation of Income Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/06</td>
</tr>
<tr>
<td>Euro</td>
</tr>
<tr>
<td>Sales</td>
</tr>
<tr>
<td>Cost of goods sold</td>
</tr>
<tr>
<td>Operating profits</td>
</tr>
</tbody>
</table>
P18–3 Euromarket investment and fund raising  A U.S.-based multinational company has two subsidiaries, one in Mexico (local currency, Mexican peso, MP) and one in Japan (local currency, yen, ¥). Forecasts of business operations indicate the following short-term financing position for each subsidiary (in equivalent U.S. dollars):

- **Mexico**: $80 million excess cash to be invested (lent)
- **Japan**: $60 million funds to be raised (borrowed)

The management gathered the following data:

Determine the **effective interest rates** for all three currencies in both the Euromarket and the domestic market; then indicate where the funds should be invested and raised. (Note: Assume that because of local regulations, a subsidiary is not permitted to use the domestic market of any other subsidiary.)

P18–4 ETHICS PROBLEM  Is there a conflict between maximizing shareholder wealth and never paying bribes when doing business abroad? If so, how might you explain the firm’s position to shareholders asking why the company does not pay bribes when its foreign competitors in various nations clearly do so?
David Smith is chief financial officer for U.S. Computer Corporation (USCC), a successful and rapidly growing manufacturer of personal computers. He has been asked to evaluate an investment project calling for USCC to build a factory in Chile to assemble the company’s most popular computer for sale in the Chilean market. David knows that Chile has been a real business success story in recent years—having achieved economic growth rates averaging over 7% per year from 1990 through 2004, even as it made the transition from military dictatorship to democracy—and USCC is eager to invest in this developing economy if an attractive opportunity arises. David’s job is to use the information below to see whether this particular proposal meets the company’s investment standards.

On the basis of the current Chilean peso (Ps)-to-dollar exchange rate of Ps 700/US$ (assumed value), David calculates that the factory would cost Ps 7 billion ($10 million) to build (including working capital) and would generate sales of Ps 14 billion ($20 million) per year for the first several years. Initially, the factory would import key components from the United States and assemble the computers in Chile using local labor. Smith estimates that half the company’s costs will be dollar-denominated components and half will be local currency (peso) costs, but all USCC’s revenues will be in pesos. As long as the peso/dollar exchange rate is stable, the company’s operating cash flow is expected to equal 20% of sales. If, however, the peso were to depreciate relative to the dollar, the company’s peso cost of acquiring dollar-denominated components would increase, and its profit margin would shrink because the peso sale prices of its computers would not change.

If USCC made this investment, it would set up a subsidiary in Chile and structure the factory investment so that the subsidiary’s capital structure was 60% debt and 40% equity. Therefore, to finance the Ps 7 billion factory cost, USCC must obtain Ps 4.2 billion ($6 million) in debt and Ps 2.8 billion ($4 million) in equity. The debt can be obtained either by issuing $6 million of dollar-denominated bonds in the Eurobond market at a 6% annual rate and then converting the proceeds into pesos or by borrowing the Ps 4.2 billion in the Chilean market at a 14% annual interest rate. If borrowing is done in dollars, however, the parent company must also service and repay the debt in dollars, even though all project revenues will be in pesos.

For simplicity, assume the parent company decides to contribute the equity capital for the project itself. USCC would do this by contributing $4 million to the subsidiary from its existing resources or from the proceeds of newly issued stock. This equity financing would then be converted to pesos. (Alternatively, the subsidiary could sell Ps 2.8 billion of stock to Chilean investors by listing shares on the Santiago Stock Exchange.) USCC has a 12% required return on equity on its dollar-denominated investments.

**TO DO**

a. Compute the *weighted average cost of capital* for this project, assuming that the long-term debt financing is in dollars.

b. Assuming that the peso/dollar exchange rate remains unchanged, compute the present value of the first 5 years of the project’s cash flows, using the...
weighted average cost of capital computed in part a. (Note: Round off your answer in part a to the nearest 1% prior to making this calculation.) What happens to the present value if the dollar appreciates against the peso?

c. Identify the exchange rate risks involved in this project. Given that no forward, futures, or options market exists for the Chilean peso, how might USCC minimize the exchange rate risk of this project via changes in production, sourcing, and sales? (Hint: Exchange rate risk can be minimized by decreasing dollar-denominated costs, by increasing dollar-denominated revenue, or by doing both.)

d. What are the risks involved in financing this project as much as possible with local funds (pesos)? Which financing strategy—dollar versus peso—would minimize the project’s exchange rate risk? Would your answer change if Chile began to experience political instability? What would happen to the attractiveness of the project if Chile joined NAFTA or signed a bilateral trade pact with the United States?

Spreadsheet Exercise

As the financial manager for a large multinational corporation (MNC), you have been asked to assess the firm’s economic exposure. The two major currencies, other than the U.S. dollar, that affect the company are the Mexican peso (MP) and the British pound (£). You have been given the projected future cash flows for next year:

<table>
<thead>
<tr>
<th>Currency</th>
<th>Total inflow</th>
<th>Total outflow</th>
</tr>
</thead>
<tbody>
<tr>
<td>British pounds</td>
<td>£17,000,000</td>
<td>£11,000,000</td>
</tr>
<tr>
<td>Mexican pesos</td>
<td>MP 100,000,000</td>
<td>MP 25,000,000</td>
</tr>
</tbody>
</table>

The current expected exchange rate in U.S. dollars with respect to the two currencies is as follows:

<table>
<thead>
<tr>
<th>Currency</th>
<th>Exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>British pounds</td>
<td>$1.66</td>
</tr>
<tr>
<td>Mexican pesos</td>
<td>$0.10</td>
</tr>
</tbody>
</table>

**TO DO**

Assume that the movements in the Mexican peso and the British pound are highly correlated. Create a spreadsheet to answer the following questions.

a. Determine the net cash flows for both the Mexican peso and the British pound.

b. Determine the net cash flow as measured in U.S. dollars. It will represent the value of the economic exposure.

c. Provide your assessment as to the company’s degree of economic exposure. In other words, is it high or low based on your findings in part b?
Group Exercise

This is the final chapter in this text and the final group assignment for your fictitious firm. In this chapter the author has “gone international” and your firm has now developed to a point where it is time to look for opportunities abroad.

TO DO

The first objective for your firm is to decide whether you are looking abroad for a new supplier or to expand your sales. You will then have to choose which country to investigate. Once these choices have been made and defended, you must address exchange rate risk. Up until now we have assumed that all costs and revenues were in dollars and therefore we avoided this issue. Accordingly, you have to find the recent exchange rate for this country in relation to the dollar and also look at the recent exchange rate history, say the last 5 years, to get a sense of its volatility. Now look up this country’s inflation rate and compare it to the US CPI. If we expect the current inflation rates to continue over the following year, this information can be used to form expectations of changing exchange rates during the year. Compare your analysis of exchange rates using the respective inflation rates to the recent historical pattern of the exchange rate for your country. Lastly, explain what your firm perceives as the risk/reward tradeoff of going international.

Web Exercise

International trade continues to grow, shrinking the “size” of the world. This trend will continue as more nations open their markets. A major arbiter of rules regarding international trade is the World Trade Organization (WTO). Although referenced in the text, obviously there is much more to this organization which resolves trade disputes between nations. Your assignment is to investigate what the WTO does.

TO DO

Point your browser to www.wto.org/, the home page of the WTO. Explore and report on what the WTO does. One suggestion is to follow the Trade Topics link on the left side of the Web site. This link provides information about the different types of rulings made by the WTO.

Remember to check the book’s Web site at www.aw-bc.com/gitman for additional resources, including additional Web exercises.
Organic Solutions (OS), one of the nation’s largest plant wholesalers in the southeastern United States, was poised for expansion. Through strong profitability, a conservative dividend policy, and some recent realized gains in real estate, OS had a strong cash position and was searching for a target company to acquire. The executive members on the acquisition search committee had agreed that they preferred to find a firm in a similar line of business rather than one that would provide broad diversification. This would be their first acquisition, and they preferred to stay in a familiar line of business. Jennifer Morgan, director of marketing, had identified the targeted lines of business through exhaustive market research.

Ms. Morgan had determined that the servicing of plants in large commercial offices, hotels, zoos, and theme parks would complement the existing wholesale distribution business. Frequently, OS was requested by its large clients to bid on a service contract. However, the company was neither staffed nor equipped to enter this market. Ms. Morgan was familiar with the major plant service companies in the Southeast and had suggested Green Thumbs, Inc. (GTI), as an acquisition target because of its significant market share and excellent reputation.

GTI had successfully commercialized a market that had been dominated by small local contractors and in-house landscaping departments. By its first winning a contract from one of the largest theme parks in the United States, GTI’s growth in sales had compounded remarkably over its 8-year history.

GTI had also been selected because of its large portfolio of long-term service contracts with several major Fortune 500 companies. These contracted clients would provide a captive customer base for the wholesale distribution of OS’s plant products.

At the National Horticultural meeting in Los Angeles this past March, Ms. Morgan and OS’s chief financial officer, Jack Levine, had approached the owner of GTI (a closely held corporation) to determine whether a merger offer would be welcomed. GTI’s majority owner and president, Herb Merrell, had reacted favorably and subsequently provided financial data including GTI’s earnings record and current balance sheet. This data is presented in Tables 1 and 2 on the next page.

Jack Levine had estimated that the incremental cash flow after taxes from the acquisition would be $18,750,000 for years 1 and 2; $20,500,000 for year 3; $21,750,000 for year 4;
$24,000,000 for year 5; and $25,000,000 for years 6 through 30. He also estimated that the company should earn a rate of return of at least 16% on an investment of this type. Additional financial data for 2006 are given in Table 3.

### Table 1

**Green Thumbs, Inc. Earning Record**

<table>
<thead>
<tr>
<th>Year</th>
<th>EPS</th>
<th>Year</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>$2.20</td>
<td>2003</td>
<td>$2.85</td>
</tr>
<tr>
<td>2000</td>
<td>2.35</td>
<td>2004</td>
<td>3.00</td>
</tr>
<tr>
<td>2001</td>
<td>2.45</td>
<td>2005</td>
<td>3.10</td>
</tr>
<tr>
<td>2002</td>
<td>2.60</td>
<td>2006</td>
<td>3.30</td>
</tr>
</tbody>
</table>

### Table 2

**Green Thumbs, Inc. Balance Sheet (December 31, 2006)**

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities and Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash $ 2,500,000</td>
<td>Current liabilities $ 5,250,000</td>
</tr>
<tr>
<td>Accounts receivable 1,500,000</td>
<td>Mortgage payable 3,125,000</td>
</tr>
<tr>
<td>Inventories 7,625,000</td>
<td>Common stock 15,625,000</td>
</tr>
<tr>
<td>Land 7,475,000</td>
<td>Retained earnings 9,000,000</td>
</tr>
<tr>
<td>Fixed assets (net) 13,900,000</td>
<td>Total liabilities and equity $33,000,000</td>
</tr>
<tr>
<td>Total assets $33,000,000</td>
<td></td>
</tr>
</tbody>
</table>

### Table 3

**OS and GTI Financial Data (December 31, 2006)**

<table>
<thead>
<tr>
<th>Item</th>
<th>OS</th>
<th>GTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings available for common stock</td>
<td>$35,000,000</td>
<td>$15,246,000</td>
</tr>
<tr>
<td>Number of shares of common stock</td>
<td>10,000,000</td>
<td>4,620,000</td>
</tr>
<tr>
<td>Market price per share</td>
<td>$50</td>
<td>$30*</td>
</tr>
</tbody>
</table>

*Estimated by Organic Solutions.
TO DO

a. What is the maximum price that Organic Solutions should offer GTI for a cash acquisition? (Note: Assume the relevant time horizon for analysis is 30 years.)

b. If OS planned to sell bonds to finance 80% of the cash acquisition price found in part a, how might issuance of each of the following bonds affect the firm? Describe the characteristics and pros and cons of each bond.
   (1) Straight bonds.
   (2) Convertible bonds.
   (3) Bonds with stock purchase warrants attached.

c. (1) What is the ratio of exchange in a stock swap acquisition if OS pays $30 per share for GTI? Explain why.
   (2) What effect will this swap of stock have on the EPS of the original shareholders of (i) Organic Solutions and (ii) Green Thumbs, Inc.? Explain why.
   (3) If the earnings attributed to GTI’s assets grow at a much slower rate than those attributed to OS’s premerger assets, what effect might this have on the EPS of the merged firm over the long run?

d. What other merger proposals could OS make to GTI’s owners?

e. What impact would the fact that GTI is actually a foreign-based company have on the foregoing analysis? Describe the added regulations, costs, benefits, and risks that are likely to be associated with such an international merger.