

International Financial Management

11TH EDITION



Jeff Madura

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**International Financial Management,
11th Edition**

Jeff Madura

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Library of Congress Control Number: 2009933901

ISBN-13: 978-0-538-48296-7

ISBN-10: 0-538-48296-6

South-Western
5191 Natorp Boulevard
Mason, OH 45040
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Printed in the United States of America

1 2 3 4 5 6 7 15 14 13 12 11



1 Multinational Financial Management: An Overview

CHAPTER OBJECTIVES

The specific objectives of this chapter are to:

- identify the management goal and organizational structure of the MNC,
- describe the key theories that justify international business,
- explain the common methods used to conduct international business, and
- provide a model for valuing the MNC.

Multinational corporations (MNCs) are defined as firms that engage in some form of international business. Their managers conduct international financial management, which involves international investing and financing decisions that are intended to maximize the value of the MNC. The goal of their managers is to maximize the value of the firm, which is similar to the goal of managers employed by domestic companies.

Initially, firms may merely attempt to export products to a particular country or import supplies from a foreign manufacturer. Over time, however, many of them recognize additional foreign opportunities and eventually establish subsidiaries in foreign countries. Dow Chemical, IBM, Nike, and many other firms have more than half of their assets in foreign countries. Some businesses, such as ExxonMobil, Fortune Brands, and Colgate-Palmolive, commonly generate more than half of their sales in foreign countries.

Even smaller U.S. firms commonly generate more than 20 percent of their sales in foreign markets, including Ferro (Ohio) and Medtronic (Minnesota). Seventy-five percent of U.S. firms that export have fewer than 100 employees.

International financial management is important even to companies that have no international business because these companies must recognize how their foreign competitors will be affected by movements in exchange rates, foreign interest rates, labor costs, and inflation. Such economic characteristics can affect the foreign competitors' costs of production and pricing policies.

This chapter provides background on the goals, motives, and valuation of an MNC.

MANAGING THE MNC

The commonly accepted goal of an MNC is to maximize shareholder wealth. Managers employed by the MNC are expected to make decisions that will maximize the stock price and therefore serve the shareholders. Some publicly traded MNCs based outside the United States may have additional goals, such as satisfying their respective governments, creditors, or employees. However, these MNCs now place more emphasis on satisfying

shareholders so that they can more easily obtain funds from them to support their operations. Even in developing countries such as Bulgaria and Vietnam that have only recently encouraged the development of business enterprise, managers of firms must serve shareholder interests so that they can obtain funds from them. If firms announced that they were going to issue stock so that they could use the proceeds to pay excessive salaries to managers or invest in unprofitable business projects, they would not attract demand for their stock.

The focus of this text is on MNCs whose parents wholly own any foreign subsidiaries, which means that the U.S. parent is the sole owner of the subsidiaries. This is the most common form of ownership of U.S.-based MNCs, and it enables financial managers throughout the MNC to have a single goal of maximizing the value of the entire MNC instead of maximizing the value of any particular foreign subsidiary. The concepts in this text also commonly apply to MNCs based in other countries.

How Business Disciplines Are Used to Manage the MNC

Various business disciplines are integrated to manage the MNC in a manner that maximizes shareholder wealth. Management is used to develop strategies to motivate and control employees who work in an MNC and to organize the resources in a manner that can efficiently produce products or services. Marketing is used to increase consumer awareness about the products and to monitor changes in consumer preferences. Accounting and information systems are used to record financial information about revenue and expenses of the MNC, which can be used to report financial information to investors and to evaluate the outcomes of various strategies that the MNC has implemented. Finance is used to make investment and financing decisions for the MNC. Common finance decisions include:

- whether to discontinue operations in a particular country,
- whether to pursue new business in a particular country,
- whether to expand business in a particular country, and
- how to finance expansion in a particular country.

These finance decisions for each MNC are partially influenced by the other business discipline functions. The decision to pursue new business in a particular country is based on comparing potential benefits to costs of expansion. The potential benefits of the new business are influenced by the expected consumer interest in the products to be sold (marketing function) and by the expected cost of the resources (management function) that would be used to pursue the new business. Financial managers rely on financial information provided by the accounting and information systems functions.

Agency Problems

Managers of an MNC may make decisions that conflict with the firm's goal to maximize shareholder wealth. For example, a decision to establish a subsidiary in one location versus another may be based on the location's appeal to a particular manager rather than on its potential benefits to shareholders. A decision to expand a subsidiary may be motivated by a manager's desire to receive more compensation rather than to enhance the value of the MNC. This conflict of goals between a firm's managers and shareholders is often referred to as the **agency problem**.

The costs of ensuring that managers maximize shareholder wealth (referred to as *agency costs*) are normally larger for MNCs than for purely domestic firms for several reasons. First, MNCs with subsidiaries scattered around the world may experience larger

agency problems because monitoring managers of distant subsidiaries in foreign countries is more difficult. Second, foreign subsidiary managers raised in different cultures may not follow uniform goals. Third, the sheer size of the larger MNCs can also create large agency problems. Fourth, some non-U.S. managers tend to downplay the short-term effects of decisions, which may result in decisions for foreign subsidiaries of the U.S.-based MNCs that maximize subsidiary values or pursue other goals. This can be a challenge, especially in countries where some people may perceive that the first priority of corporations should be to serve their respective employees.

EXAMPLE

Two years ago, Seattle Co. (based in the United States) established a subsidiary in Singapore so that it could expand its business there. It hired a manager in Singapore to manage the subsidiary. During the last 2 years, the sales generated by the subsidiary have not grown. Yet, the manager of the subsidiary has hired several employees to do the work that he was assigned. The managers of the parent company in the United States have not closely monitored the subsidiary because they trusted the manager of the subsidiary and because the subsidiary is so far away. Now they realize that there is an agency problem. The subsidiary is experiencing losses every quarter, so they need to more closely monitor the management of the subsidiary. ●

Parent Control of Agency Problems The parent corporation of an MNC may be able to prevent agency problems with proper governance. It should clearly communicate the goals for each subsidiary to ensure that all subsidiaries focus on maximizing the value of the MNC rather than their respective subsidiary values. The parent can oversee the subsidiary decisions to check whether the subsidiary managers are satisfying the MNC's goals. The parent can also implement compensation plans that reward the subsidiary managers who satisfy the MNC's goals. A common incentive is to provide managers with the MNC's stock (or options to buy the stock at a fixed price) as part of their compensation so that they benefit directly from a higher stock price when they make decisions that enhance the MNC's value.

EXAMPLE

When Seattle Co. (from the previous example) recognized the agency problems with its Singapore subsidiary, it created incentives for the manager of the subsidiary that were aligned with the parent's goal of maximizing shareholder wealth. Specifically, it set up a compensation system so that the annual bonus paid to the manager would be based on the level of earnings at the subsidiary. ●

Corporate Control of Agency Problems In the example of Seattle Co., the agency problems occurred because the subsidiary's management goals were not focused on maximizing shareholder wealth. In some cases, agency problems can occur because the goals of the entire management of the MNC are not focused on maximizing shareholder wealth. Various forms of corporate control can also help prevent these agency problems and therefore ensure that managers make decisions to satisfy the MNC's shareholders. If the MNC's managers make poor decisions that reduce its value, another firm may be able to acquire the MNC at a low price and will probably remove the weak managers. In addition, institutional investors such as mutual funds or pension funds that have large holdings of an MNC's stock have some influence over management because they can complain to the board of directors if managers are making poor decisions. They may attempt to enact changes in a poorly performing MNC, such as the removal of high-level managers or even board members. The institutional investors may also work together when demanding changes in an MNC because an MNC would not want to lose all of its major shareholders.

How SOX Improved Corporate Governance of MNCs One limitation of the corporate control process is that investors rely on the reporting by the firm's managers for information. If managers are serving themselves rather than the investors, they may

exaggerate their performance. There are many well-known examples (such as Enron and WorldCom) in which large MNCs were able to alter their financial reporting so that investors would not be aware of their financial problems.

Enacted in 2002, the Sarbanes-Oxley Act (SOX) ensures a more transparent process for managers to report on the productivity and financial condition of their firm. It requires firms to implement an internal reporting process that can be easily monitored by executives and the board of directors. Some of the common methods used by MNCs to improve their internal control process are:

- Establishing a centralized database of information
- Ensuring that all data are reported consistently among subsidiaries
- Implementing a system that automatically checks data for unusual discrepancies relative to norms
- Speeding the process by which all departments and all subsidiaries have access to the data that they need
- Making executives more accountable for financial statements by personally verifying their accuracy

These systems made it easier for a firm's board members to monitor the financial reporting process. Therefore, SOX reduced the likelihood that managers of a firm can manipulate the reporting process and therefore improved the accuracy of financial information for existing and prospective investors.

Management Structure of an MNC

The magnitude of agency costs can vary with the management style of the MNC. A centralized management style, as illustrated in the top section of Exhibit 1.1, can reduce agency costs because it allows managers of the parent to control foreign subsidiaries and therefore reduces the power of subsidiary managers. However, the parent's managers may make poor decisions for the subsidiary if they are not as informed as subsidiary managers about the financial characteristics of the subsidiary.

Alternatively, an MNC can use a decentralized management style, as illustrated in the bottom section of Exhibit 1.1. This style is more likely to result in higher agency costs because subsidiary managers may make decisions that do not focus on maximizing the value of the entire MNC. Yet, this style gives more control to those managers who are closer to the subsidiary's operations and environment. To the extent that subsidiary managers recognize the goal of maximizing the value of the overall MNC and are compensated in accordance with that goal, the decentralized management style may be more effective.

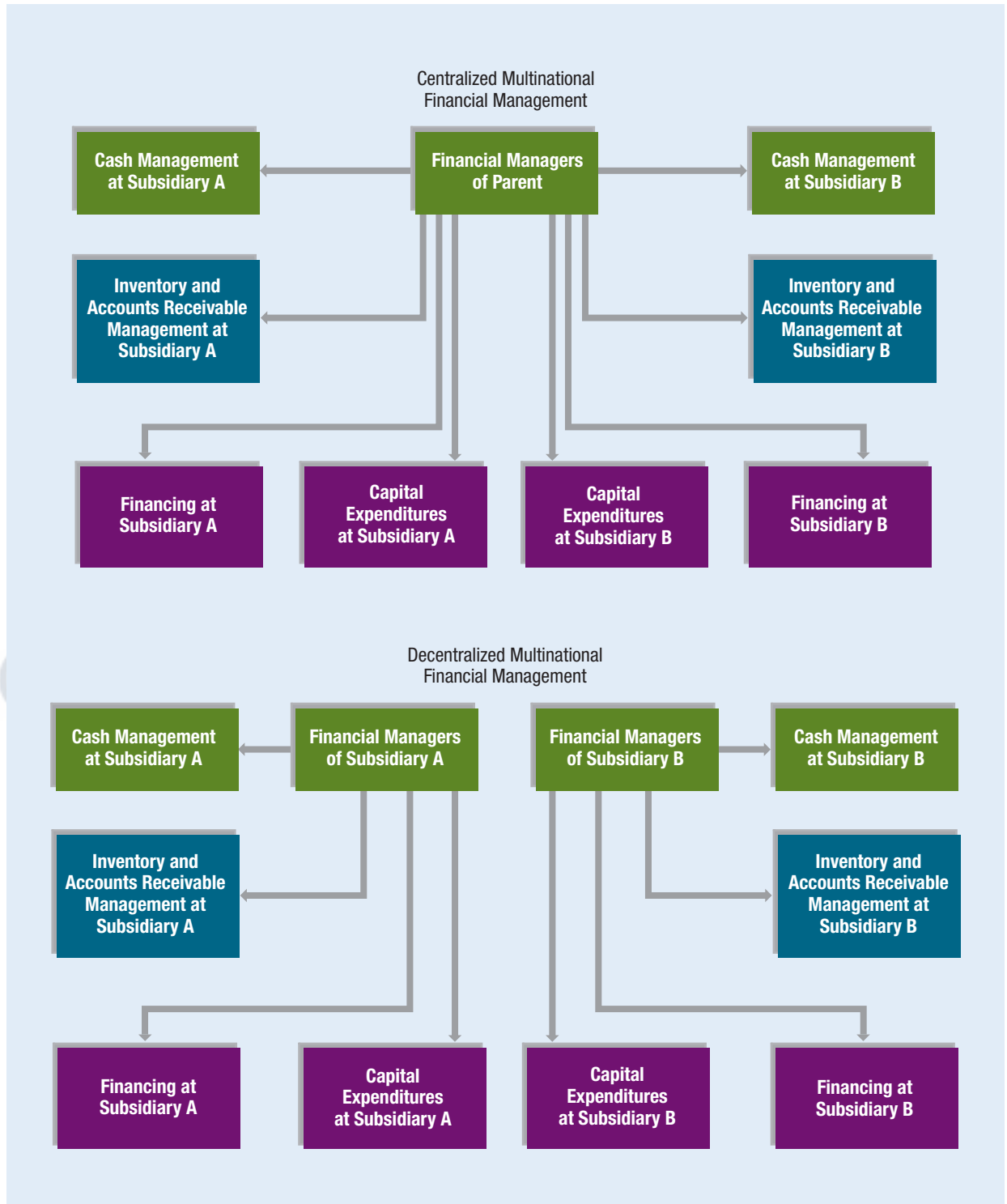
Given the obvious tradeoff between centralized and decentralized management styles, some MNCs attempt to achieve the advantages of both styles. That is, they allow subsidiary managers to make the key decisions about their respective operations, but the parent's management monitors the decisions to ensure that they are in the best interests of the entire MNC.

How the Internet Facilitates Management Control The Internet is making it easier for the parent to monitor the actions and performance of its foreign subsidiaries.

EXAMPLE

Recall the example of Seattle Co., which has a subsidiary in Singapore. The Internet allows the foreign subsidiary to e-mail updated information in a standardized format to avoid language problems and to send images of financial reports and product designs. The parent can easily track inventory, sales, expenses, and earnings of each subsidiary on a weekly or monthly basis. Thus, use of the Internet can reduce agency costs due to international business. ●

Exhibit 1.1 Management Styles of MNCs



WHY FIRMS PURSUE INTERNATIONAL BUSINESS

The commonly held theories as to why firms become motivated to expand their business internationally are (1) the theory of comparative advantage, (2) the imperfect markets theory, and (3) the product cycle theory. The three theories overlap to a degree and can complement each other in developing a rationale for the evolution of international business.

Theory of Comparative Advantage

Multinational business has generally increased over time. Part of this growth is due to the heightened realization that specialization by countries can increase production efficiency. Some countries, such as Japan and the United States, have a technology advantage, while other countries, such as Jamaica, China, and Malaysia, have an advantage in the cost of basic labor. Since these advantages cannot be easily transported, countries tend to use their advantages to specialize in the production of goods that can be produced with relative efficiency. This explains why countries such as Japan and the United States are large producers of computer components, while countries such as Jamaica and Mexico are large producers of agricultural and handmade goods. MNCs such as Oracle, Intel, and IBM have grown substantially in foreign countries because of their technology advantage.

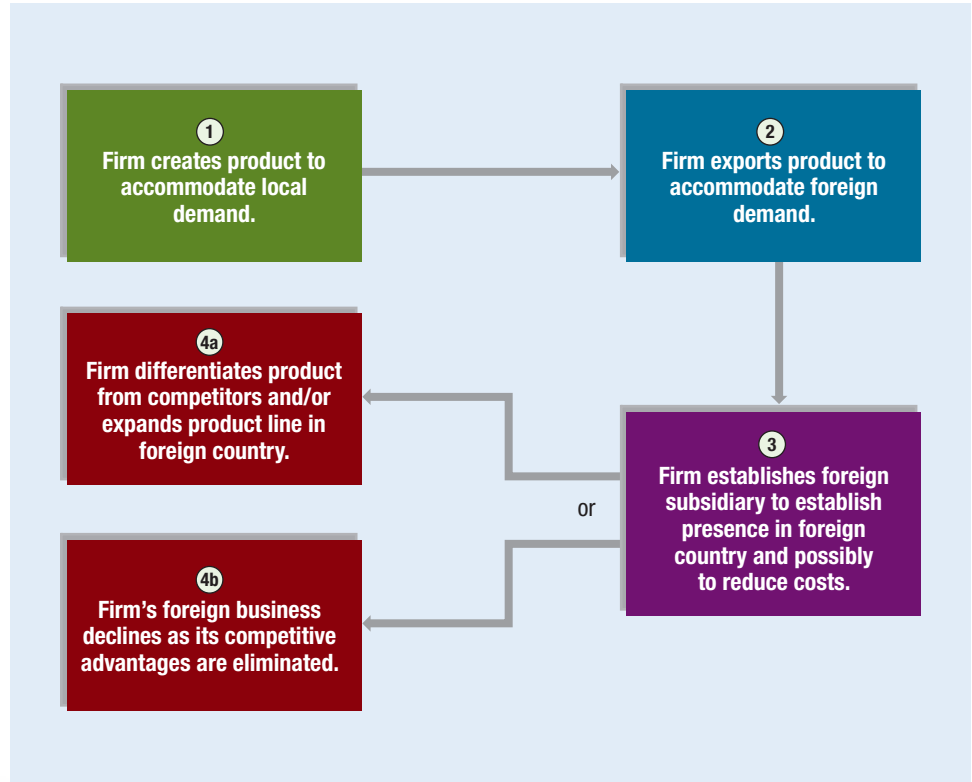
When a country specializes in some products, it may not produce other products, so trade between countries is essential. This is the argument made by the classical theory of **comparative advantage**. Comparative advantages allow firms to penetrate foreign markets. Many of the Virgin Islands, for example, specialize in tourism and rely completely on international trade for most products. Although these islands could produce some goods, it is more efficient for them to specialize in tourism. That is, the islands are better off using some revenues earned from tourism to import products rather than attempting to produce all the products they need.

Imperfect Markets Theory

If each country's markets were closed from all other countries, there would be no international business. At the other extreme, if markets were perfect so that the factors of production (such as labor) were easily transferable, then labor and other resources would flow wherever they were in demand. The unrestricted mobility of factors would create equality in costs and returns and remove the comparative cost advantage, the rationale for international trade and investment. However, the real world suffers from **imperfect market** conditions where factors of production are somewhat immobile. There are costs and often restrictions related to the transfer of labor and other resources used for production. There may also be restrictions on transferring funds and other resources among countries. Because markets for the various resources used in production are "imperfect," MNCs such as the Gap and Nike often capitalize on a foreign country's resources. Imperfect markets provide an incentive for firms to seek out foreign opportunities.

Product Cycle Theory

One of the more popular explanations as to why firms evolve into MNCs is the **product cycle theory**. According to this theory, firms become established in the home market as a result of some perceived advantage over existing competitors, such as a need by the market for at least one more supplier of the product. Because information about markets and competition is more readily available at home, a firm is likely to establish itself first in its home country. Foreign demand for the firm's product will initially be accommodated by exporting. As time passes, the firm may feel the only way to retain its advantage

Exhibit 1.2 International Product Life Cycle

over competition in foreign countries is to produce the product in foreign markets, thereby reducing its transportation costs. The competition in the foreign markets may increase as other producers become more familiar with the firm's product. The firm may develop strategies to prolong the foreign demand for its product. A common approach is to attempt to differentiate the product so that other competitors cannot offer exactly the same product. These phases of the cycle are illustrated in Exhibit 1.2. As an example, 3M Co. uses one new product to penetrate foreign markets. After entering the market, it expands its product line.

There is more to the product cycle theory than is summarized here. This discussion merely suggests that, as a firm matures, it may recognize additional opportunities outside its home country. Whether the firm's foreign business diminishes or expands over time will depend on how successful it is at maintaining some advantage over its competition. The advantage could represent an edge in its production or financing approach that reduces costs or an edge in its marketing approach that generates and maintains a strong demand for its product.

HOW FIRMS ENGAGE IN INTERNATIONAL BUSINESS

Firms use several methods to conduct international business. The most common methods are these:

- International trade
- Licensing
- Franchising

- Joint
- Acquisitions of existing operations
- Establishing new foreign subsidiaries

Each method is discussed in turn, with some emphasis on its risk and return characteristics.

International Trade

International trade is a relatively conservative approach that can be used by firms to penetrate markets (by exporting) or to obtain supplies at a low cost (by importing). This approach entails minimal risk because the firm does not place any of its capital at risk. If the firm experiences a decline in its exporting or importing, it can normally reduce or discontinue this part of its business at a low cost.

Many large U.S.-based MNCs, including Boeing, DuPont, General Electric, and IBM, generate more than \$4 billion in annual sales from exporting. Nonetheless, small businesses account for more than 20 percent of the value of all U.S. exports.

How the Internet Facilitates International Trade Many firms use their websites to list the products that they sell, along with the price for each product. This allows them to easily advertise their products to potential importers anywhere in the world without mailing brochures to various countries. In addition, a firm can add to its product line or change prices by simply revising its website. Thus, importers need only monitor an exporter's website periodically to keep abreast of its product information.

Firms can also use their websites to accept orders online. Some products such as software can be delivered directly to the importer over the Internet in the form of a file that lands in the importer's computer. Other products must be shipped, but the Internet makes it easier to track the shipping process. An importer can transmit its order for products via e-mail to the exporter. The exporter's warehouse fills orders. When the warehouse ships the products, it can send an e-mail message to the importer and to the exporter's headquarters. The warehouse may even use technology to monitor its inventory of products so that suppliers are automatically notified to send more supplies once the inventory is reduced to a specific level. If the exporter uses multiple warehouses, the Internet allows them to work as a network so that if one warehouse cannot fill an order, another warehouse will.

Licensing

Licensing obligates a firm to provide its technology (copyrights, patents, trademarks, or trade names) in exchange for fees or some other specified benefits. Starbucks has licensing agreements with SSP (an operator of food and beverages in Europe) to sell Starbucks products in train stations and airports throughout Europe. Sprint Nextel Corp. has a licensing agreement to develop telecommunications services in the United Kingdom. Eli Lilly & Co. has a licensing agreement to produce drugs for foreign countries. IGA, Inc., which operates more than 1,700 supermarkets in the United States, has a licensing agreement to operate supermarkets in China and Singapore. Licensing allows firms to use their technology in foreign markets without a major investment in foreign countries and without the transportation costs that result from exporting. A major disadvantage of licensing is that it is difficult for the firm providing the technology to ensure quality control in the foreign production process.

WEB

www.trade.gov/mas/ian

Outlook of international trade conditions for each of several industries.

Franchising

Franchising obligates a firm to provide a specialized sales or service strategy, support assistance, and possibly an initial investment in the franchise in exchange for periodic fees. For example, McDonald's, Pizza Hut, Subway Sandwiches, Blockbuster, and Dairy Queen have franchises that are owned and managed by local residents in many foreign countries. Like licensing, franchising allows firms to penetrate foreign markets without a major investment in foreign countries. The recent relaxation of barriers in countries throughout Eastern Europe and South America has resulted in numerous franchising arrangements.

Joint Ventures

A **joint venture** is a venture that is jointly owned and operated by two or more firms. Many firms penetrate foreign markets by engaging in a joint venture with firms that reside in those markets. Most joint ventures allow two firms to apply their respective comparative advantages in a given project. For example, General Mills, Inc., joined in a venture with Nestlé SA so that the cereals produced by General Mills could be sold through the overseas sales distribution network established by Nestlé.

Xerox Corp. and Fuji Co. (of Japan) engaged in a joint venture that allowed Xerox Corp. to penetrate the Japanese market and allowed Fuji to enter the photocopying business. Sara Lee Corp. and AT&T have engaged in joint ventures with Mexican firms to gain entry to Mexico's markets. Joint ventures between automobile manufacturers are numerous, as each manufacturer can offer its technological advantages. General Motors has ongoing joint ventures with automobile manufacturers in several different countries, including the former Soviet states.

Acquisitions of Existing Operations

Firms frequently acquire other firms in foreign countries as a means of penetrating foreign markets. Acquisitions allow firms to have full control over their foreign businesses and to quickly obtain a large portion of foreign market share.

EXAMPLE

Google, Inc., has made major international acquisitions to expand its business and to improve its technology. It has acquired businesses in Australia (search engines), Brazil (search engines), Canada (mobile browser), China (search engines), Finland (micro-blogging), Germany (mobile software), Russia (online advertising), South Korea (weblog software), Spain (photo sharing), and Sweden (videoconferencing). ●

An acquisition of an existing corporation is subject to the risk of large losses, however, because of the large investment required. In addition, if the foreign operations perform poorly, it may be difficult to sell the operations at a reasonable price.

Some firms engage in partial international acquisitions in order to obtain a stake in foreign operations. This requires a smaller investment than full international acquisitions and therefore exposes the firm to less risk. On the other hand, the firm will not have complete control over foreign operations that are only partially acquired.

Establishing New Foreign Subsidiaries

Firms can also penetrate foreign markets by establishing new operations in foreign countries to produce and sell their products. Like a foreign acquisition, this method requires a large investment. Establishing new subsidiaries may be preferred to foreign acquisitions because the operations can be tailored exactly to the firm's needs. In addition, a smaller investment may be required than would be needed to purchase existing operations. However, the firm will not reap any rewards from the investment until the subsidiary is built and a customer base established.

Summary of Methods

The methods of increasing international business extend from the relatively simple approach of international trade to the more complex approach of acquiring foreign firms or establishing new subsidiaries. Any method of increasing international business that requires a direct investment in foreign operations normally is referred to as a **direct foreign investment (DFI)**. International trade and licensing usually are not considered to be DFI because they do not involve direct investment in foreign operations. Franchising and joint ventures tend to require some investment in foreign operations, but to a limited degree. Foreign acquisitions and the establishment of new foreign subsidiaries require substantial investment in foreign operations and represent the largest portion of DFI.

Many MNCs use a combination of methods to increase international business. IBM and PepsiCo, for example, have substantial direct foreign investment but also derive some of their foreign revenue from various licensing agreements, which require less DFI to generate revenue.

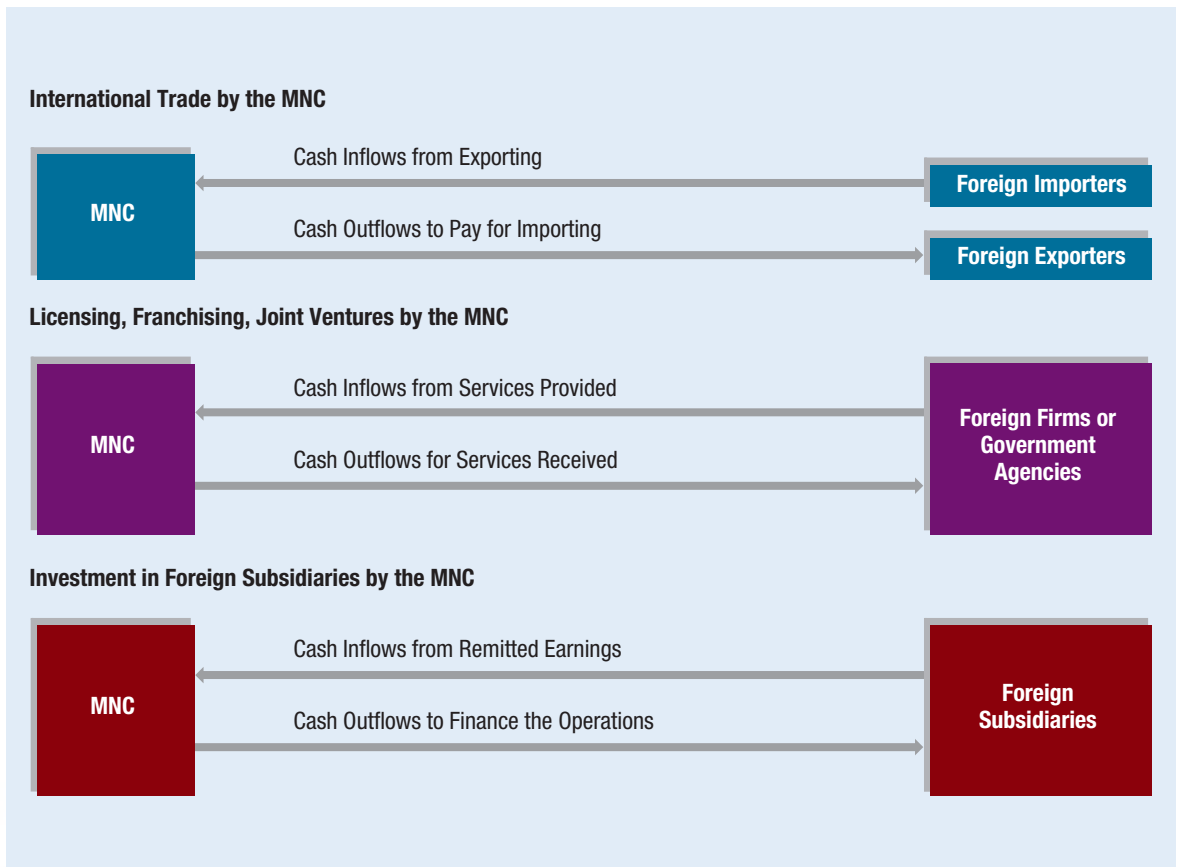
EXAMPLE

The evolution of Nike began in 1962 when Phil Knight, a business student at Stanford's business school, wrote a paper on how a U.S. firm could use Japanese technology to break the German dominance of the athletic shoe industry in the United States. After graduation, Knight visited the Onitsuka Tiger shoe company in Japan. He made a licensing agreement with that company to produce a shoe that he sold in the United States under the name Blue Ribbon Sports (BRS). In 1972, Knight exported his shoes to Canada. In 1974, he expanded his operations into Australia. In 1977, the firm licensed factories in Taiwan and Korea to produce athletic shoes and then sold the shoes in Asian countries. In 1978, BRS became Nike, Inc., and began to export shoes to Europe and South America. As a result of its exporting and its direct foreign investment, Nike's international sales reached \$1 billion by 1992 and now exceed \$8 billion per year. ●

The manner by which an MNC's international business affects its cash flows is illustrated in Exhibit 1.3. In general, the cash outflows associated with international business by the U.S. parent are to pay for imports, to comply with its international arrangements, or to support the creation or expansion of foreign subsidiaries. Conversely, an MNC receives cash flows in the form of payment for its exports, fees for the services it provides within international arrangements, and remitted funds from the foreign subsidiaries. The first diagram in this exhibit reflects an MNC that engages in international trade. Thus, its international cash flows result from either paying for imported supplies or receiving payment in exchange for products that it exports.

The second diagram reflects an MNC that engages in some international arrangements (which can include international licensing, franchising, or joint ventures). Any of these international arrangements can require cash outflows by the MNC in foreign countries to comply with the arrangement, such as the expenses incurred from transferring technology or funding partial investment in a franchise or joint venture. These arrangements generate cash flows to the MNC in the form of fees for services (such as technology or support assistance) it provides.

The third diagram reflects an MNC that engages in direct foreign investment. This type of MNC has one or more foreign subsidiaries. There can be cash outflows from the U.S. parent to its foreign subsidiaries in the form of invested funds to help finance the operations of the foreign subsidiaries. There are also cash flows from the foreign subsidiaries to the U.S. parent in the form of remitted earnings and fees for services provided by the parent, which can all be classified as remitted funds from the foreign subsidiaries.

Exhibit 1.3 Cash Flow Diagrams for MNCs

VALUATION MODEL FOR AN MNC

The value of an MNC is relevant to its shareholders and its debtholders. When managers make decisions that maximize the value of the firm, they maximize shareholder wealth (assuming that the decisions are not intended to maximize the wealth of debtholders at the expense of shareholders). Since international financial management should be conducted with the goal of increasing the value of the MNC, it is useful to review some basics of valuation. There are numerous methods of valuing an MNC, and some methods will lead to the same valuation. The valuation method described in this section can be used to understand the key factors that affect an MNC's value in a general sense.

Domestic Model

Before modeling an MNC's value, consider the valuation of a purely domestic firm that does not engage in any foreign transactions. The value (V) of a purely domestic firm in the United States is commonly specified as the present value of its expected cash flows,

$$V = \sum_{t=1}^n \left\{ \frac{[E(CF_{\$},t)]}{(1+k)^t} \right\}$$

where $E(CF_{\$,t})$ represents expected cash flows to be received at the end of period t , n represents the number of periods into the future in which cash flows are received, and k represents the weighted average cost of capital, and also the required rate of return by investors and creditors who provide funds to the MNC.

Dollar Cash Flows The dollar cash flows in period t represent funds received by the firm minus funds needed to pay expenses or taxes, or to reinvest in the firm (such as an investment to replace old computers or machinery). The expected cash flows are estimated from knowledge about various existing projects as well as other projects that will be implemented in the future. A firm's decisions about how it should invest funds to expand its business can affect its expected future cash flows and therefore can affect the firm's value. Holding other factors constant, an increase in expected cash flows over time should increase the value of the firm.

Cost of Capital The required rate of return (k) in the denominator of the valuation equation represents the cost of capital (including both the cost of debt and the cost of equity) to the firm and is essentially a weighted average of the cost of capital based on all of the firm's projects. As the firm makes decisions that affect its cost of debt or its cost of equity for one or more projects, it affects the weighted average of its cost of capital and therefore affects the required rate of return. For example, if the firm's credit rating is suddenly lowered, its cost of capital will probably increase and so will its required rate of return. Holding other factors constant, an increase in the firm's required rate of return will reduce the value of the firm because expected cash flows must be discounted at a higher interest rate. Conversely, a decrease in the firm's required rate of return will increase the value of the firm because expected cash flows are discounted at a lower required rate of return.

Multinational Model

An MNC's value can be specified in the same manner as a purely domestic firm's value. However, consider that the expected cash flows generated by a U.S.-based MNC's parent in period t may be coming from various countries and may therefore be denominated in different foreign currencies.

The foreign currency cash flows will be converted into dollars. Thus, the expected dollar cash flows to be received at the end of period t are equal to the sum of the products of cash flows denominated in each currency j times the expected exchange rate at which currency j could be converted into dollars by the MNC at the end of period t .

$$E(CF_{\$,t}) = \sum_{j=1}^m [E(CF_{j,t}) \times E(S_{j,t})]$$

where $CF_{j,t}$ represents the amount of cash flow denominated in a particular foreign currency j at the end of period t , and $S_{j,t}$ represents the exchange rate at which the foreign currency (measured in dollars per unit of the foreign currency) can be converted to dollars at the end of period t .

Valuation of an MNC That Uses Two Currencies

An MNC that does business in two currencies could measure its expected dollar cash flows in any period by multiplying the expected cash flow in each currency times the expected exchange rate at which that currency could be converted to dollars and then summing those two products.

It may help to think of an MNC as a portfolio of currency cash flows, one for each currency in which it conducts business. The expected dollar cash flows derived from

each of those currencies can be combined to determine the total expected dollar cash flows in the given period. It is easier to derive an expected dollar cash flow value for each currency before combining the cash flows among currencies within a given period, because each currency's cash flow amount must be converted to a common unit (the dollar) before combining the amounts.

EXAMPLE

Carolina Co. has expected cash flows of \$100,000 from local business and 1 million Mexican pesos from business in Mexico at the end of period t . Assuming that the peso's value is expected to be \$.09 when converted into dollars, the expected dollar cash flows are:

$$\begin{aligned} E(CF_{\$,t}) &= \sum_{j=1}^m [E(CF_{j,t}) \times E(S_{j,t})] \\ &= (\$100,000) + [1,000,000 \text{ pesos} \times (\$.09)] \\ &= (\$100,000) + (\$90,000) \\ &= \$190,000. \end{aligned}$$

The cash flows of \$100,000 from U.S. business were already denominated in U.S. dollars and therefore did not have to be converted. ●

Valuation of an MNC That Uses Multiple Currencies

The same process described above can be used to value an MNC that uses many foreign currencies. The general formula for estimating the dollar cash flows to be received by an MNC from multiple currencies in one period can be written as:

$$E(CF_{\$,t}) = \sum_{j=1}^m [E(CF_{j,t}) \times E(S_{j,t})]$$

EXAMPLE

Assume that Yale Co. will receive cash in 15 different countries at the end of the next period. To estimate the value of Yale Co., the first step is to estimate the amount of cash flows that Yale will receive at the end of the period in each currency (such as 2 million euros, 8 million Mexican pesos, etc.). Second, obtain a forecast of the currency's exchange rate for cash flows that will arrive at the end of the period for each of the 15 currencies (such as euro forecast = \$1.40, peso forecast = \$.12, etc.). The existing exchange rate might be used as a forecast for the exchange rate in the future, but there are many alternative methods (as explained in Chapter 9). Third, multiply the amount of each foreign currency to be received by the forecasted exchange rate of that currency in order to estimate the dollar cash flows to be received due to each currency. Fourth, add the estimated dollar cash flows for all 15 currencies in order to determine the total expected dollar cash flows in the period. The previous equation represents the four steps described here. When applying that equation to this example, $m = 15$ because there are 15 different currencies. ●

Valuation of an MNC's Cash Flows over Multiple Periods The entire process described in the example for a single period is not adequate for valuation because most MNCs have cash flows beyond that period. However, the process can be easily adapted in order to estimate the total dollar cash flows for all future periods. First, the same process that was described for a single period needs to be applied to all future periods in which the MNC will receive cash flows. This will generate an estimate of total dollar cash flows to be received in every period in the future. Second, discount the estimated total dollar cash flow for each period at the weighted cost of capital (k), and sum these discounted cash flows to estimate the value of this MNC.

The process for valuing an MNC receiving multiple currencies over multiple periods can be written in equation form as follows:

$$V = \sum_{t=1}^n \left\{ \frac{\sum_{j=1}^m [E(CF_{j,t}) \times E(S_{j,t})]}{(1+k)^t} \right\}$$

where $CF_{j,t}$ represents the cash flow denominated in a particular currency (including dollars), and $S_{j,t}$ represents the exchange rate at which the MNC can convert the foreign currency at the end of period t . The difference between this equation and the previous equation is that the previous equation focused on cash flows in a single period, while this equation considers cash flows over multiple periods, and then discounts the cash flows to obtain a present value.

Since the management of an MNC should be focused on maximizing its value, the equation for valuing an MNC is very important. Notice from this valuation equation that the value (V) will increase in response to managerial decisions that increase the amount of its cash flows in a particular currency (CF_j), or to conditions that increase the exchange rate at which that currency is converted into dollars (S_j).

To avoid double counting, cash flows of the MNC's subsidiaries are considered in the valuation model only when they reflect transactions with the U.S. parent. Thus, any expected cash flows received by foreign subsidiaries should not be counted in the valuation equation until they are expected to be remitted to the parent.

The denominator of the valuation model for the MNC remains unchanged from the original valuation model for the purely domestic firm. However, recognize that the weighted average cost of capital for the MNC is based on funding some projects that reflect business in different countries. Thus, any decision by the MNC's parent that affects the cost of its capital supporting projects in a specific country can affect its weighted average cost of capital (and its required rate of return) and therefore can affect its value.

Uncertainty Surrounding an MNC's Cash Flows

The MNC's future cash flows (and therefore its valuation) are subject to uncertainty because of its exposure to international economic conditions, political conditions, and exchange rate risk, as explained next. Exhibit 1.4 complements the discussion.

Exposure to International Economic Conditions The amount of consumption in any country is influenced by the income earned by consumers in that country. If economic conditions weaken, the income of consumers becomes relatively low, consumer purchases of products decline, and an MNC's sales in that country may be lower than expected. This results in a reduction in the MNC's cash flows, and therefore in its value.

EXAMPLE

In 2010, the government of Greece experienced major budget deficits, and there were concerns that it would not be able to repay its existing debt. It was forced to restrict its excessive spending policies so that it could reduce its debt. The governments of Portugal and Spain also had large budget deficits and had to restrict their spending as well. The restrictions on government spending caused a reduction in the expected economic growth in these countries. Consequently, MNCs doing business in these countries had to revise their expected cash flows downward, and their stock valuations were adversely affected as well. ●

Exposure to International Political Risk Political risk in any country can affect the level of an MNC's sales. A foreign government may increase taxes or impose barriers on the MNC's subsidiary. Alternatively, consumers in a foreign country may boycott the MNC if there is friction between the government of their country and the MNC's home country. Political actions like these can reduce the cash flows of the MNC.

Exhibit 1.4 How an MNC's Valuation Is Exposed to Uncertainty (Risk)

Uncertain foreign currency cash flows
 due to uncertain foreign economic
 and political conditions

Uncertainty surrounding
 future exchange rates

$$V = \sum_{t=1}^n \left\{ \frac{\sum_{j=1}^m [E(CF_{j,t}) \times E(S_{j,t})]}{(1+k)^t} \right\}$$

Uncertainty Surrounding an MNC's Valuation:

Exposure to Foreign Economies: If $[CF_{j,t} < E(CF_{j,t})] \rightarrow V \downarrow$

Exposure to Political Risk: If $[CF_{j,t} < E(CF_{j,t})] \rightarrow V \downarrow$

Exposure to Exchange Rate Risk: If $[S_{j,t} < E(S_{j,t})] \rightarrow V \downarrow$

Exposure to Exchange Rate Risk If the foreign currencies to be received by a U.S.-based MNC suddenly weaken against the dollar, the MNC will receive a lower amount of dollar cash flows than was expected. This may reduce the cash flows of the MNC.

EXAMPLE

Missouri Co. has a foreign subsidiary in Canada that generates earnings (in Canadian dollars) each year. Before the subsidiary remits earnings to the parent, it converts Canadian dollars to U.S. dollars. The managers of Missouri expect that because of a recent government policy in Canada, the Canadian dollar will weaken substantially against the U.S. dollar over time. Consequently, the expected U.S. dollar cash flows to be received by the parent are reduced, so the valuation of Missouri Co. is reduced. ●

Many MNCs have cash outflows in one or more foreign currencies because they import supplies or materials from companies in other countries. When an MNC has future cash outflows in foreign currencies, it is exposed to exchange rate movements, but in the opposite direction. If these foreign currencies strengthen, the MNC will need a larger amount of dollars to obtain the foreign currencies that it needs to make its payments. This reduces the MNC's dollar cash flows (on a net basis) overall, and therefore reduces its value.

How Uncertainty Affects the MNC's Cost of Capital

If there is suddenly more uncertainty surrounding its future cash flows, investors may only be willing to invest in the MNC if they can expect to receive a higher rate of return. Consequently, the higher level of uncertainty increases the return on investment required by investors (which reflects an increase in the MNC's cost of obtaining capital), and the MNC's valuation decreases.

EXAMPLE

Texas Co. does substantial business in Mexico, and therefore its value is highly influenced by how much revenue it expects to earn from that business. Recently, economic conditions have become very uncertain in Mexico. While Texas Co. has not changed its forecasts of expected cash flows in Mexico, its actual cash flows could possibly deviate substantially from these forecasts. Because of

the increased level of uncertainty surrounding the cash flows, the cost of capital applied to these cash flows is now higher, and therefore the required rate of return is higher. That is, the numerator of the valuation equation has not changed, but the denominator has increased. Consequently, the valuation of Texas Co. has decreased. ●

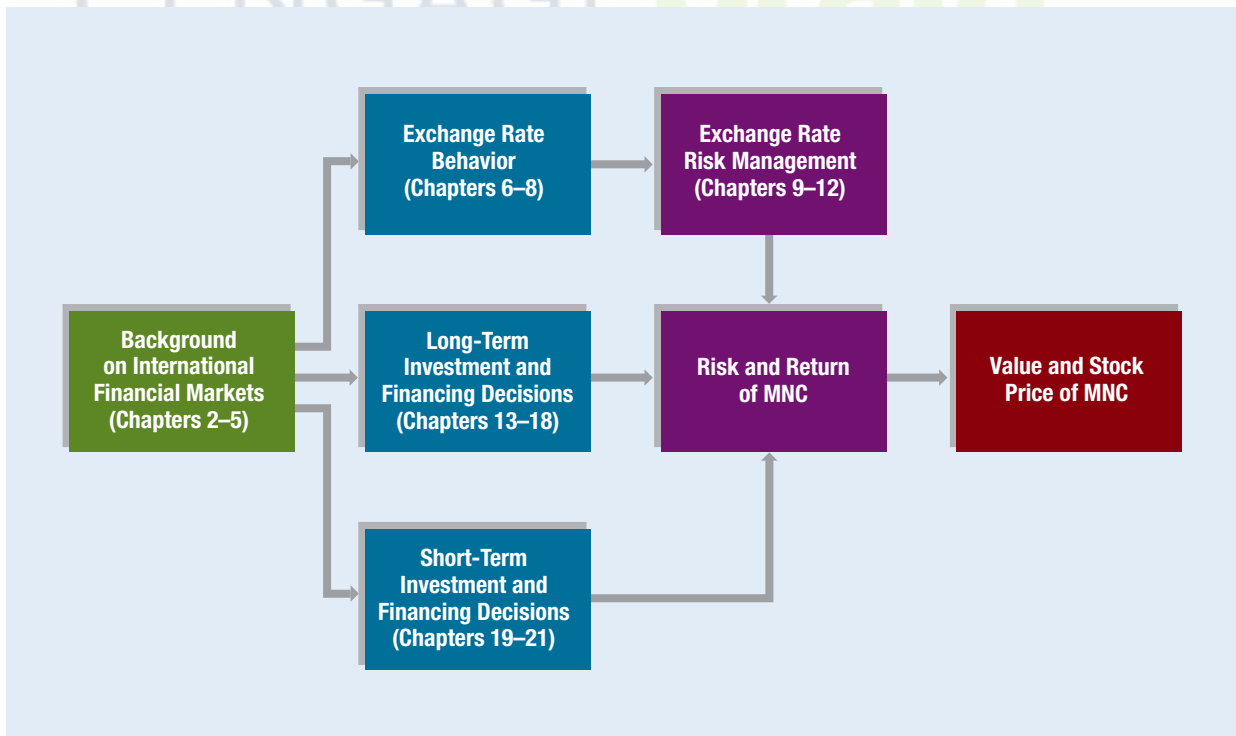
In some periods, the uncertainty surrounding conditions that influence cash flows of MNCs could decline. In this case, the uncertainty surrounding cash flows also declines, the MNC's cost of capital decreases, which means that the required rate of return decreases, and therefore the valuations of MNCs increase.

ORGANIZATION OF THE TEXT

The organization of the chapters in this text is shown in Exhibit 1.5. Chapters 2 through 8 discuss international markets and conditions from a macroeconomic perspective, focusing on external forces that can affect the value of an MNC. Though financial managers may not have control over these forces, they do have some control over their degree of exposure to these forces. These macroeconomic chapters provide the background necessary to make financial decisions.

Chapters 9 through 21 take a microeconomic perspective and focus on how the financial management of an MNC can affect its value. Financial decisions by MNCs are commonly classified as either investing decisions or financing decisions. In general, investing decisions by an MNC tend to affect the numerator of the valuation model because such decisions affect expected cash flows. In addition, if investing decisions by the MNC's parent alter the firm's weighted average cost of capital, they may also affect the denominator of the valuation model. Long-term financing decisions by an MNC's parent tend to affect the denominator of the valuation model because they affect the MNC's cost of capital.

Exhibit 1.5 Organization of Chapters



SUMMARY

- The main goal of an MNC is to maximize shareholder wealth. When managers are tempted to serve their own interests instead of those of shareholders, an agency problem exists. MNCs tend to experience greater agency problems than do domestic firms because managers of foreign subsidiaries might be tempted to focus on making decisions to serve their subsidiaries rather than serving the overall MNC. Proper incentives and communication from the parent may help to ensure that subsidiary managers focus on serving the overall MNC.
- International business is justified by three key theories. The theory of comparative advantage suggests that each country should use its comparative advantage to specialize in its production and rely on other countries to meet other needs. The imperfect markets theory suggests that because of imperfect markets, factors of production are immobile, which encourages countries to specialize based on the resources they have. The product cycle theory suggests that after firms are established in their home countries, they commonly expand their product specialization in foreign countries.
- The most common methods by which firms conduct international business are international trade, licensing, franchising, joint ventures, acquisitions of foreign firms, and formation of foreign subsidiaries. Methods such as licensing and franchising involve little capital investment but distribute some of the profits to other parties. The acquisition of foreign firms and formation of foreign subsidiaries require substantial capital investments but offer the potential for large returns.
- The valuation model of an MNC shows that the MNC's value is favorably affected when its expected foreign cash inflows increase, the currencies denominating those cash inflows increase, or the MNC's required rate of return decreases. Conversely, the MNC's value is adversely affected when its expected foreign cash inflows decrease, the values of currencies denominating those cash flows decrease (assuming that they have net cash inflows in foreign currencies), or the MNC's required rate of return increases.

POINT COUNTER-POINT

Should an MNC Reduce Its Ethical Standards to Compete Internationally?

Point Yes. When a U.S.-based MNC competes in some countries, it may encounter some business norms there that are not allowed in the United States. For example, when competing for a government contract, firms might provide payoffs to the government officials who will make the decision. Yet, in the United States, a firm will sometimes take a client on an expensive golf outing or provide skybox tickets to events. This is no different than a payoff. If the payoffs are bigger in some foreign countries, the MNC can compete

only by matching the payoffs provided by its competitors.

Counter-Point No. A U.S.-based MNC should maintain a standard code of ethics that applies to any country, even if it is at a disadvantage in a foreign country that allows activities that might be viewed as unethical. In this way, the MNC establishes more credibility worldwide.

Who Is Correct? Use the Internet to learn more about this issue. Which argument do you support? Offer your own opinion on this issue.

SELF-TEST

Answers are provided in Appendix A at the back of the text.

1. What are typical reasons why MNCs expand internationally?
2. Explain why unfavorable economic or political conditions affect the MNC's cash flows, required rate of return, and valuation.
3. Identify the more obvious risks faced by MNCs that expand internationally.

QUESTIONS AND APPLICATIONS

1. Agency Problems of MNCs

- Explain the agency problem of MNCs.
- Why might agency costs be larger for an MNC than for a purely domestic firm?

2. Comparative Advantage

- Explain how the theory of comparative advantage relates to the need for international business.
- Explain how the product cycle theory relates to the growth of an MNC.

3. Imperfect Markets

- Explain how the existence of imperfect markets has led to the establishment of subsidiaries in foreign markets.
- If perfect markets existed, would wages, prices, and interest rates among countries be more similar or less similar than under conditions of imperfect markets? Why?

4. International Opportunities

- Do you think the acquisition of a foreign firm or licensing will result in greater growth for an MNC? Which alternative is likely to have more risk?
- Describe a scenario in which the size of a corporation is not affected by access to international opportunities.
- Explain why MNCs such as Coca-Cola and PepsiCo, Inc., still have numerous opportunities for international expansion.

5. International Opportunities Due to the Internet

- What factors cause some firms to become more internationalized than others?
- Offer your opinion on why the Internet may result in more international business.

6. Impact of Exchange Rate Movements Plak Co. of Chicago has several European subsidiaries that remit earnings to it each year. Explain how appreciation of the euro (the currency used in many European countries) would affect Plak's valuation.

7. Benefits and Risks of International Business

As an overall review of this chapter, identify possible reasons for growth in international business. Then, list the various disadvantages that may discourage international business.

8. Valuation of an MNC Hudson Co., a U.S. firm, has a subsidiary in Mexico, where political risk has recently increased. Hudson's best guess of its future peso cash flows to be received has not changed. However, its valuation has declined as a result of the increase in political risk. Explain.

9. Centralization and Agency Costs Would the agency problem be more pronounced for Berkely Corp., which has its parent company make most major decisions for its foreign subsidiaries, or Oakland Corp., which uses a decentralized approach?

10. Global Competition Explain why more standardized product specifications across countries can increase global competition.

11. Exposure to Exchange Rates McCanna Corp., a U.S. firm, has a French subsidiary that produces wine and exports to various European countries. All of the countries where it sells its wine use the euro as their currency, which is the same currency used in France. Is McCanna Corp. exposed to exchange rate risk?

12. Macro versus Micro Topics Review the Table of Contents and indicate whether each of the chapters from Chapter 2 through Chapter 21 has a macro or micro perspective.

13. Methods Used to Conduct International Business Duve, Inc., desires to penetrate a foreign market with either a licensing agreement with a foreign firm or by acquiring a foreign firm. Explain the differences in potential risk and return between a licensing agreement with a foreign firm and the acquisition of a foreign firm.

14. International Business Methods Snyder Golf Co., a U.S. firm that sells high-quality golf clubs in the United States, wants to expand internationally by selling the same golf clubs in Brazil.

- Describe the tradeoffs that are involved for each method (such as exporting, direct foreign investment, etc.) that Snyder could use to achieve its goal.
- Which method would you recommend for this firm? Justify your recommendation.

15. Impact of Political Risk Explain why political risk may discourage international business.

16. Impact of September 11 Following the terrorist attack on the United States, the valuations of many MNCs declined by more than 10 percent. Explain why the expected cash flows of MNCs were reduced, even if they were not directly hit by the terrorist attacks.

Advanced Questions

17. International Joint Venture Anheuser-Busch, the producer of Budweiser and other beers, expanded into Japan by engaging in a joint venture with Kirin Brewery, the largest brewery in Japan. The joint venture enabled Anheuser-Busch to have its beer distributed through Kirin's distribution channels in Japan. In addition, it could utilize Kirin's facilities to produce beer that would be sold locally. In return, Anheuser-Busch provided information about the American beer market to Kirin.

- Explain how the joint venture enabled Anheuser-Busch to achieve its objective of maximizing shareholder wealth.
- Explain how the joint venture limited the risk of the international business.
- Many international joint ventures are intended to circumvent barriers that normally prevent foreign competition. What barrier in Japan did Anheuser-Busch circumvent as a result of the joint venture? What barrier in the United States did Kirin circumvent as a result of the joint venture?
- Explain how Anheuser-Busch could have lost some of its market share in countries outside Japan as a result of this particular joint venture.

18. Impact of Eastern European Growth The managers of Loyola Corp. recently had a meeting to discuss new opportunities in Europe as a result of the recent integration among Eastern European countries. They decided not to penetrate new markets because of their present focus on expanding market share in the United States. Loyola's financial managers have developed forecasts for earnings based on the 12 percent market share (defined here as its percentage of total European sales) that Loyola currently has in Eastern Europe. Is 12 percent an appropriate estimate for next year's Eastern European market share? If not, does it likely overestimate or underestimate the actual Eastern European market share next year?

19. Valuation of an MNC Birm Co., based in Alabama, is considering several international opportunities in Europe that could affect the value of

its firm. The valuation of its firm is dependent on four factors: (1) expected cash flows in dollars, (2) expected cash flows in euros that are ultimately converted into dollars, (3) the rate at which it can convert euros to dollars, and (4) Birm's weighted average cost of capital. For each opportunity, identify the factors that would be affected.

- Birm plans a licensing deal in which it will sell technology to a firm in Germany for \$3 million; the payment is invoiced in dollars, and this project has the same risk level as its existing businesses.
- Birm plans to acquire a large firm in Portugal that is riskier than its existing businesses.
- Birm plans to discontinue its relationship with a U.S. supplier so that it can import a small amount of supplies (denominated in euros) at a lower cost from a Belgian supplier.
- Birm plans to export a small amount of materials to Ireland that are denominated in euros.

20. Assessing Motives for International Business

Fort Worth, Inc., specializes in manufacturing some basic parts for sports utility vehicles (SUVs) that are produced and sold in the United States. Its main advantage in the United States is that its production is efficient and less costly than that of some other unionized manufacturers. It has a substantial market share in the United States. Its manufacturing process is labor intensive. It pays relatively low wages compared to U.S. competitors, but has guaranteed the local workers that their positions will not be eliminated for the next 30 years. It hired a consultant to determine whether it should set up a subsidiary in Mexico, where the parts would be produced. The consultant suggested that Fort Worth should expand for the following reasons. Offer your opinion on whether the consultant's reasons are logical.

- Theory of Competitive Advantage:** There are not many SUVs sold in Mexico, so Fort Worth, Inc., would not have to face much competition there.
- Imperfect Markets Theory:** Fort Worth cannot easily transfer workers to Mexico, but it can establish a subsidiary there in order to penetrate a new market.
- Product Cycle Theory:** Fort Worth has been successful in the United States. It has limited growth opportunities because it already controls much of the U.S. market for the parts it produces. Thus, the natural next step is to conduct the same business in a foreign country.

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d. Exchange Rate Risk: The exchange rate of the peso has weakened recently, so this would allow Fort Worth to build a plant at a very low cost (by exchanging dollars for the cheap pesos to build the plant).

e. Political Risk: The political conditions in Mexico have stabilized in the last few months, so Fort Worth should attempt to penetrate the Mexican market now.

21. Valuation of Wal-Mart's International Business

In addition to all of its stores in the United States, Wal-Mart has 13 stores in Argentina, 302 stores in Brazil, 289 stores in Canada, 73 stores in China, 889 stores in Mexico, and 335 stores in the United Kingdom. Overall, it has 2,750 stores in foreign countries. Consider the value of Wal-Mart as being composed of two parts, a U.S. part (due to business in the United States) and a non-U.S. part (due to business in other countries). Explain how to determine the present value (in dollars) of the non-U.S. part assuming that you had access to all the details of Wal-Mart businesses outside the United States.

22. Impact of International Business on Cash Flows and Risk

Nantucket Travel Agency specializes in tours for American tourists. Until recently, all of its business was in the United States. It just established a subsidiary in Athens, Greece, which provides tour services in the Greek islands for American tourists. It rented a shop near the port of Athens. It also hired residents of Athens who could speak English and provide tours of the Greek islands. The subsidiary's main costs are rent and salaries for its employees and the lease of a few large boats in Athens that it uses for tours. American tourists pay for the entire tour in dollars at Nantucket's main U.S. office before they depart for Greece.

a. Explain why Nantucket may be able to effectively capitalize on international opportunities such as the Greek island tours.

b. Nantucket is privately owned by owners who reside in the United States and work in the main office. Explain possible agency problems associated with the creation of a subsidiary in Athens, Greece. How can Nantucket attempt to reduce these agency costs?

c. Greece's cost of labor and rent are relatively low. Explain why this information is relevant to Nantucket's decision to establish a tour business in Greece.

d. Explain how the cash flow situation of the Greek tour business exposes Nantucket to exchange rate risk. Is Nantucket favorably or unfavorably affected when the euro (Greece's currency) appreciates against the dollar? Explain.

e. Nantucket plans to finance its Greek tour business. Its subsidiary could obtain loans in euros from a bank in Greece to cover its rent, and its main office could pay off the loans over time. Alternatively, its main office could borrow dollars and would periodically convert dollars to euros to pay the expenses in Greece. Does either type of loan reduce the exposure of Nantucket to exchange rate risk? Explain.

f. Explain how the Greek island tour business could expose Nantucket to country risk.

23. Valuation of an MNC Yahoo! has expanded its business by establishing portals in numerous countries, including Argentina, Australia, China, Germany, Ireland, Japan, and the United Kingdom. It has cash outflows associated with the creation and administration of each portal. It also generates cash inflows from selling advertising space on its website. Each portal results in cash flows in a different currency. Thus, the valuation of Yahoo! is based on its expected future net cash flows in Argentine pesos after converting them into U.S. dollars, its expected net cash flows in Australian dollars after converting them into U.S. dollars, and so on. Explain how and why the valuation of Yahoo! would change if most investors suddenly expected that the dollar would weaken against most currencies over time.

24. Uncertainty Surrounding an MNC's Valuation

Carlisle Co. is a U.S. firm that is about to purchase a large company in Switzerland at a purchase price of \$20 million. This company produces furniture and sells it locally (in Switzerland), and it is expected to earn large profits every year. The company will become a subsidiary of Carlisle and will periodically remit its excess cash flows due to its profits to Carlisle Co. Assume that Carlisle Co. has no other international business. Carlisle has \$10 million that it will use to pay for part of the Swiss company and will finance the rest of its purchase with borrowed dollars. Carlisle Co. can obtain supplies from either a U.S. supplier or a Swiss supplier (in which case the payment would be made in Swiss francs). Both suppliers are very reputable and there would be no exposure to country risk when using either supplier. Is the valuation of the total cash flows

of Carlisle Co. more uncertain if it obtains its supplies from a U.S. firm or a Swiss firm? Explain briefly.

25. Impact of Exchange Rates on MNC Value

Olmsted Co. has small computer chips assembled in Poland and transports the final assembled products to the parent, where they are sold by the parent in the United States. The assembled products are invoiced in dollars. Olmsted Co. uses Polish currency (the zloty) to produce these chips and assemble them in Poland. The Polish subsidiary pays the employees in the local currency (zloty), and Olmsted Co. finances its subsidiary operations with loans from a Polish bank (in zloty). The parent of Olmsted will send sufficient monthly payments (in dollars) to the subsidiary in order to repay the loan and other expenses incurred by the subsidiary. If the Polish zloty depreciates against the dollar over time, will that have a favorable, unfavorable, or neutral effect on the value of Olmsted Co.? Briefly explain.

26. Impact of Uncertainty on MNC Value

Minneapolis Co. is a major exporter of products to Canada. Today, an event occurred that has increased the uncertainty surrounding the Canadian dollar's future value over the long term. Explain how this event can affect the valuation of Minneapolis Co.

27. Exposure of MNCs to Exchange Rate Movements

Arlington Co. expects to receive 10 million euros in each of the next 10 years. It will need to obtain 2 million Mexican pesos in each of the next 10 years. The euro exchange rate is presently valued at \$1.38 and is expected to depreciate by 2 percent each year over time. The peso is valued at \$.13 and is expected to depreciate by 2 percent each year over time. Review the valuation equation for an MNC. Do you think that the exchange rate movements will have a favorable or unfavorable effect on the MNC?

28. Impact of the Credit Crisis on MNC Value

Much of the attention to the credit crisis was focused on its adverse effects on financial institutions. Yet, many other types of firms were affected as well. Explain why the numerator of the MNC valuation equation was affected during the October 6–10, 2008, period. Explain how the denominator of the MNC valuation equation was affected during this period.

29. Exposure of MNCs to Exchange Rate Movements

Because of the low labor costs in Thailand, Melnick Co. (based in the United States) recently established a major research and development

subsidiary there that it owns. The subsidiary was created to improve new products that the parent of Melnick can sell in the United States (denominated in dollars) to U.S. customers. The subsidiary pays its local employees in baht (the Thai currency). The subsidiary has a small amount of sales denominated in baht, but its expenses are much larger than its revenue. It has just obtained a large loan denominated in baht that will be used to expand its subsidiary. The business that the parent of Melnick Co. conducts in the United States is not exposed to exchange rate risk. If the Thai baht weakens over the next 3 years, will the value of Melnick Co. be favorably affected, unfavorably affected, or not affected? Briefly explain.

30. Shareholder Rights of Investors in MNCs

MNCs tend to expand more when they can more easily access funds by issuing stock. In some countries, shareholder rights are very limited, and the MNCs have limited ability to raise funds by issuing stock. Explain why access to funding is more severe for MNCs based in countries where shareholder rights are limited.

31. MNC Cash Flows and Exchange Rate Risk

Tuscaloosa Co. is a U.S. firm that assembles phones in Argentina and transports the final assembled products to the parent, where they are sold by the parent in the United States. The assembled products are invoiced in dollars. The Argentine subsidiary obtains some material from China, and the Chinese exporter is willing to accept Argentine pesos as payment for these materials that it exports. The Argentine subsidiary pays its employees in the local currency (pesos), and finances its operations with loans from an Argentine bank (in pesos). Tuscaloosa Co. has no other international business. If the Argentine peso depreciates against the dollar over time, will that have a favorable, unfavorable, or neutral effect on Tuscaloosa Co.? Briefly explain.

32. MNC Cash Flows and Exchange Rate Risk

Asheville Co. has a subsidiary in Mexico that develops software for its parent. It rents a large facility in Mexico and hires many people in Mexico to work in the facility. Asheville Co. has no other international business. All operations are presently funded by Asheville's parent. All the software is sold to U.S. firms by Asheville's parent and invoiced in U.S. dollars.

a. If the Mexican peso appreciates against the dollar, does this have a favorable effect, unfavorable effect, or no effect on Asheville's value?

b. Asheville Co. plans to borrow funds to support its expansion in the United States. The Mexican interest rates are presently lower than U.S. interest rates, so Asheville obtains a loan denominated in Mexican pesos in order to support its expansion in the United States. Will the borrowing of pesos increase, decrease, or have no effect on its exposure to exchange rate risk? Briefly explain.

BLADES, INC. CASE

Decision to Expand Internationally

Blades, Inc., is a U.S.-based company that has been incorporated in the United States for 3 years. Blades is a relatively small company, with total assets of only \$200 million. The company produces a single type of product, roller blades. Due to the booming roller blade market in the United States at the time of the company's establishment, Blades has been quite successful. For example, in its first year of operation, it reported a net income of \$3.5 million. Recently, however, the demand for Blades' "Speedos," the company's primary product in the United States, has been slowly tapering off, and Blades has not been performing well. Last year, it reported a return on assets of only 7 percent. In response to the company's annual report for its most recent year of operations, Blades' shareholders have been pressuring the company to improve its performance; its stock price has fallen from a high of \$20 per share 3 years ago to \$12 last year. Blades produces high-quality roller blades and employs a unique production process, but the prices it charges are among the top 5 percent in the industry.

In light of these circumstances, Ben Holt, the company's chief financial officer (CFO), is contemplating his alternatives for Blades' future. There are no other cost-cutting measures that Blades can implement in the United States without affecting the quality of its product. Also, production of alternative products would require major modifications to the existing plant setup. Furthermore, and because of these limitations, expansion within the United States at this time seems pointless.

Holt is considering the following: If Blades cannot penetrate the U.S. market further or reduce costs here, why not import some parts from overseas and/or expand the company's sales to foreign countries? Similar strategies have proved successful for numerous companies that expanded into Asia in recent years to

Discussion in the Boardroom

This exercise can be found in Appendix E at the back of this textbook.

Running Your Own MNC

This exercise can be found on the *International Financial Management* text companion website. Go to www.cengagebrain.com (students) or login.cengage.com (instructors) and search using ISBN 9780538482967.

increase their profit margins. The CFO's initial focus is on Thailand. Thailand has recently experienced weak economic conditions, and Blades could purchase components there at a low cost. Holt is aware that many of Blades' competitors have begun importing production components from Thailand.

Not only would Blades be able to reduce costs by importing rubber and/or plastic from Thailand due to the low costs of these inputs, but it might also be able to augment weak U.S. sales by exporting to Thailand, an economy still in its infancy and just beginning to appreciate leisure products such as roller blades. While several of Blades' competitors import components from Thailand, few are exporting to the country. Long-term decisions would also eventually have to be made; maybe Blades, Inc., could establish a subsidiary in Thailand and gradually shift its focus away from the United States if its U.S. sales do not rebound. Establishing a subsidiary in Thailand would also make sense for Blades due to its superior production process. Holt is reasonably sure that Thai firms could not duplicate the high-quality production process employed by Blades. Furthermore, if the company's initial approach of exporting works well, establishing a subsidiary in Thailand would preserve Blades' sales before Thai competitors are able to penetrate the Thai market.

As a financial analyst for Blades, Inc., you are assigned to analyze international opportunities and risk resulting from international business. Your initial assessment should focus on the barriers and opportunities that international trade may offer. Holt has never been involved in international business in any form and is unfamiliar with any constraints that may inhibit his plan to export to and import from a foreign country. Holt has presented you with a list of initial questions you should answer.

1. What are the advantages Blades could gain from importing from and/or exporting to a foreign country such as Thailand?
2. What are some of the disadvantages Blades could face as a result of foreign trade in the short run? In the long run?
3. Which theories of international business described in this chapter apply to Blades, Inc., in the short run? In the long run?
4. What long-range plans other than establishment of a subsidiary in Thailand are an option for Blades and may be more suitable for the company?

SMALL BUSINESS DILEMMA

Developing a Multinational Sporting Goods Corporation

In every chapter of this text, some of the key concepts are illustrated with an application to a small sporting goods firm that conducts international business. These “Small Business Dilemma” features allow students to recognize the dilemmas and possible decisions that firms (such as this sporting goods firm) may face in a global environment. For this chapter, the application is on the development of the sporting goods firm that would conduct international business.

Last month, Jim Logan completed his undergraduate degree in finance and decided to pursue his dream of managing his own sporting goods business. Logan had worked in a sporting goods shop while going to college, and he had noticed that many customers wanted to purchase a low-priced football. However, the sporting goods store where he worked, like many others, sold only top-of-the-line footballs. From his experience, Logan was aware that top-of-the-line footballs had a high markup and that a low-cost football could possibly penetrate the U.S. market. He also knew how to produce footballs. His goal was to create a firm that would produce low-priced footballs and sell them on a wholesale basis to various sporting goods stores in the United States. Unfortunately, many sporting goods stores began to sell low-priced footballs just before Logan was about to start his business. The firm that began to produce the low-cost footballs already provided many other products to sporting goods stores in the United States and therefore had already established a business relationship with these stores. Logan did not believe that he could compete with this firm in the U.S. market.

Rather than pursue a different business, Logan decided to implement his idea on a global basis. While football (as it is played in the United States) has not been a traditional sport in foreign countries, it has become more popular in some foreign countries in recent years. Furthermore, the expansion of cable networks in foreign countries would allow for much more exposure to U.S. football games in

those countries in the future. To the extent that this would increase the popularity of football (U.S. style) as a hobby in the foreign countries, it would result in a demand for footballs in foreign countries. Logan asked many of his foreign friends from college days if they recalled seeing footballs sold in their home countries. Most of them said they rarely noticed footballs being sold in sporting goods stores but that they expected the demand for footballs to increase in their home countries. Consequently, Logan decided to start a business of producing low-priced footballs and exporting them to sporting goods distributors in foreign countries. Those distributors would then sell the footballs at the retail level. Logan planned to expand his product line over time once he identified other sports products that he might sell to foreign sporting goods stores. He decided to call his business “Sports Exports Company.” To avoid any rent and labor expenses, Logan planned to produce the footballs in his garage and to perform the work himself. Thus, his main business expenses were the cost of the materials used to produce footballs and expenses associated with finding distributors in foreign countries who would attempt to sell the footballs to sporting goods stores.

1. Is Sports Exports Company a multinational corporation?
2. Why are the agency costs lower for Sports Exports Company than for most MNCs?
3. Does Sports Exports Company have any comparative advantage over potential competitors in foreign countries that could produce and sell footballs there?
4. How would Jim Logan decide which foreign markets he would attempt to enter? Should he initially focus on one or many foreign markets?
5. The Sports Exports Company has no immediate plans to conduct direct foreign investment.

However, it might consider other less costly methods of establishing its business in foreign markets. What methods might the Sports Exports

Company use to increase its presence in foreign markets by working with one or more foreign companies?

INTERNET/EXCEL EXERCISES

The website address of the Bureau of Economic Analysis is www.bea.gov.

1. Use this website to assess recent trends in direct foreign investment (DFI) abroad by U.S. firms. Compare the DFI in the United Kingdom with the DFI

in France. Offer a possible reason for the large difference.

2. Based on the recent trends in DFI, are U.S.-based MNCs pursuing opportunities in Asia? In Eastern Europe? In Latin America?

ONLINE ARTICLES WITH REAL WORLD EXAMPLES

Find a recent article online that describes an actual international finance application or a real world example about a specific MNC's actions that reinforces one or more of the concepts covered in this chapter.

If your class has an online component, your professor may ask you to post your summary there and provide the web link of the article so that other students can access it. If your class is live, your professor may ask you to summarize your application in class. Your professor may assign specific students to complete this assignment for this chapter, or may allow any students to do the assignment on a volunteer basis.

For recent online articles and real world examples applied to this chapter, consider using the following

search terms and include the current year as a search term to ensure that the online articles are recent:

1. Company AND repatriated foreign earnings
2. Inc. AND repatriated foreign earnings
3. Company AND currency effects
4. Inc. AND currency effects
5. Company AND country risk
6. Inc. AND country risk
7. direct foreign investment
8. joint venture AND international
9. licensing AND international
10. multinational corporation AND risk

Term Paper on the International Credit Crisis

Write a term paper on one of the topics below or one that is assigned by your professor. Details such as deadline date and length of the paper will be provided by your professor.

Each of the ideas listed below can be easily researched because much media attention has been given to the topics. While this text offers a brief summary of each topic, much more information is available on the Internet by inserting a few key terms or phrases into a search engine.

1. Impact on a Selected Country. Select one country (except the United States) and describe why that country was affected by the international credit crisis. For example, did its financial institutions invest heavily in mortgage-related securities? Did its MNCs suffer from limited liquidity because they relied on credit from other countries during the international credit crunch? Did the country's economy suffer because it relies heavily on exports? Was the country adversely affected because of how the international credit crisis affected its currency's value?

2. Impact on a Selected Company. Select one MNC based in the United States or in any other country. Compare its financial performance in 2007 and in the first two quarters of 2008 to its performance since July 2008 when the crisis intensified. Explain why this MNC's performance was affected by the international credit crisis. Was its revenue reduced due to weak global economic conditions? Was the MNC adversely affected because of how the international credit crisis affected exchange rates? Was it adversely affected because of problems in obtaining credit?

3. International Impact of Lehman Brothers' Bankruptcy. Explain how the bankruptcy of Lehman Brothers had adverse effects on countries outside the United States. Some effects may be indirect, while others are more direct.

4. International Impact of AIG's Financial Problems. Explain how the financial problems of American International Group (AIG) had adverse effects on countries outside the United States. Some effects may be indirect, while others are more direct.

5. Government Response to Crisis. Select a country (except the United States) that was adversely affected by the international credit crisis, and explain how that country's government responded to the crisis. Offer your opinions on whether that

government's response to the crisis was more effective than the policies used by the U.S. government.

6. Impact on Exchange Rates. Describe the trend of exchange rates before the credit crisis, during the credit crisis, and after the crisis. Offer insight on why the exchange rates of particular currencies changed as they did as a result of the crisis.

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APPENDIX **A****Answers to Self-Test Questions****CHAPTER 1**

1. MNCs can capitalize on comparative advantages (such as a technology or cost of labor) that they have relative to firms in other countries, which allows them to penetrate those other countries' markets. Given a world of imperfect markets, comparative advantages across countries are not freely transferable. Therefore, MNCs may be able to capitalize on comparative advantages. Many MNCs initially penetrate markets by exporting but ultimately establish a subsidiary in foreign markets and attempt to differentiate their products as other firms enter those markets (product cycle theory).
2. Weak economic conditions or unstable political conditions in a foreign country can reduce cash flows received by the MNC, or they can result in a higher required rate of return for the MNC. Either of these effects results in a lower valuation of the MNC.
3. First, there is the risk of poor economic conditions in the foreign country. Second, there is country risk, which reflects the risk of changing government or public attitudes toward the MNC. Third, there is exchange rate risk, which can affect the performance of the MNC in the foreign country.

This page contains answers for this chapter only

APPENDIX **B**

Supplemental Cases

CHAPTER 1 RANGER SUPPLY COMPANY

Motivation for International Business

Ranger Supply Company is a large manufacturer and distributor of office supplies. It is based in New York but sends supplies to firms throughout the United States. It markets its supplies through periodic mass mailings of catalogues to those firms. Its clients can make orders over the phone, and Ranger ships the supplies upon demand. Ranger has had very high production efficiency in the past. This is attributed partly to low employee turnover and high morale, as employees are guaranteed job security until retirement.

Ranger already holds a large proportion of the market share in distributing office supplies in the United States. Its main competition in the United States comes from one U.S. firm and one Canadian firm. A British firm has a small share of the U.S. market but is at a disadvantage because of its distance. The British firm's marketing and transportation costs in the U.S. market are relatively high.

Although Ranger's office supplies are somewhat similar to those of its competitors, it has been able to capture most of the U.S. market because its high efficiency enables it to charge low prices to retail stores. It expects a decline in the aggregate demand for office supplies in the United States in future years. However, it anticipates strong demand for office supplies in Canada and in Eastern Europe over the next several years. Ranger's executives have begun to consider exporting as a method of offsetting the possible decline in domestic demand for its products.

- a. Ranger Supply Company plans to attempt penetrating either the Canadian market or the Eastern European market through exporting. What factors deserve to be considered in deciding which market is more feasible?
- b. One financial manager has been responsible for developing a contingency plan in case whichever market is chosen imposes export barriers over time. This manager proposed that Ranger should establish a subsidiary in the country of concern under such conditions. Is this a reasonable strategy? Are there any obvious reasons why this strategy could fail?

This page contains cases for this chapter only

This page contains discussion for this chapter only

CHAPTER 1

- a. Discuss the corporate control of your business. Explain why your business in Mexico is exposed to agency problems.
- b. How would you attempt to monitor the ongoing operations of the business?
- c. Explain how you might be able to use a compensation plan to limit the potential agency problems.
- d. Assume that you have been approached by a competitor in Mexico to engage in a joint venture. The competitor would provide the classroom facilities (so you would not need to rent classroom space), while your employees would teach the classes. You and the competitor would split the profits. Discuss how your potential return and your risk would change if you pursue the joint venture.
- e. Explain the conditions that would cause your business to be adversely affected by exchange rate movements.
- f. Explain how your business could be adversely affected by political risk.