

***International Financial Management 14th edition
Madura Solutions Manual***

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Chapter 1

Multinational Financial Management: An Overview

Lecture Outline

Managing the MNC

- How Business Disciplines Are Used to Manage the MNC
- Agency Problems
- Management Structure of an MNC

Why Firms Pursue International Business

- Theory of Comparative Advantage
- Imperfect Markets Theory
- Product Cycle Theory

Methods to Conduct International Business

- International Trade
- Licensing
- Franchising
- Joint Ventures
- Acquisitions of Existing Operations
- Establishing New Foreign Subsidiaries
- Summary of Methods

Valuation Model for an MNC

- Domestic Valuation Model
- Multinational Valuation Model
- Uncertainty Surrounding an MNC's Cash Flows
- How Uncertainty Affects the MNC's Cost of Capital

Organization of the Text

Chapter Theme

This chapter introduces the multinational corporation as having similar goals to the purely domestic corporation, but a wider variety of opportunities. With additional opportunities come potential increased returns and other forms of risk to consider. The potential benefits and risks are introduced.

Topics to Stimulate Class Discussion

1. What is the appropriate definition of an MNC?
2. Why does an MNC expand internationally?
3. What are the risks of an MNC which expands internationally?
4. Why must purely domestic firms be concerned about the international environment?

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 U.S. 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.

ANSWER: The issue is frequently discussed. It is easy to suggest that the MNC should maintain a standard code of ethics, but in reality, that means that it will not be able to compete in some cases. For example, even if it submits the lowest bid on a specific foreign government project, it will not receive the bid without a payoff to the foreign government officials. The issue is especially a concern for large projects that may generate substantial cash flows for the firm that is chosen to do the project. Ideally, the MNC can clearly demonstrate to whoever oversees the decision process that it deserves to be selected. If there is just one decision-maker with no oversight, an MNC can not ensure that the decision will be ethical. But if the decision-maker must be accountable to a department who oversees the decision, the MNC may be able to prompt the department to ensure that the process is ethical.

Answers to End of Chapter Questions

1. Agency Problems of MNCs.

- a. Explain the agency problem of MNCs.

ANSWER: The agency problem reflects a conflict of interests between decision-making managers and the owners of the MNC. Agency costs occur in an effort to assure that managers act in the best interest of the owners.

- b. Why might agency costs be larger for an MNC than for a purely domestic firm?

ANSWER: The agency costs are normally larger for MNCs than purely domestic firms for the following reasons. First, MNCs incur larger agency costs in monitoring managers of distant foreign subsidiaries. Second, foreign subsidiary managers raised in different cultures may not follow uniform goals, and some managers may focus on satisfying respective employees. Third, the sheer size of the larger MNCs would also create large agency problems.

2. Comparative Advantage.

- a. Explain how the theory of comparative advantage relates to the need for international business.

ANSWER: The theory of comparative advantage implies that countries should specialize in production, thereby relying on other countries for some products. Consequently, there is a need for international business.

- b. Explain how the product cycle theory relates to the growth of an MNC.

ANSWER: The product cycle theory suggests that at some point in time, the firm will attempt to capitalize on its perceived advantages in markets other than where it was initially established.

3. Imperfect Markets.

- a. Explain how the existence of imperfect markets has led to the establishment of subsidiaries in foreign markets.

ANSWER: Because of imperfect markets, resources cannot be easily and freely retrieved by the MNC. Consequently, the MNC must sometimes go to the resources rather than retrieve resources (such as land, labor, etc.).

- b. 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?

ANSWER: If perfect markets existed, resources would be more mobile and could therefore be transferred to those countries more willing to pay a high price for them. As this occurred, shortages of resources in any particular country would be alleviated and the costs of such resources would be similar across countries.

4. International Opportunities.

- a. Do you think that either the acquisition of a foreign firm or licensing will result in greater growth for an MNC? Which alternative is likely to have more risk?

ANSWER: An acquisition will typically result in greater growth, but it is riskier because it normally requires a larger investment and the decision can not be easily reversed once the acquisition is made.

- b. Describe a scenario in which the size of a corporation is not affected by access to international opportunities.

ANSWER: Some firms may avoid opportunities because they lack knowledge about foreign markets or expect that the risks are excessive. Thus, the size of these firms is not affected by the opportunities.

- c. Explain why MNCs such as Coca Cola and PepsiCo still have numerous opportunities for international expansion.

ANSWER: Coca Cola and PepsiCo still have new international opportunities because countries are at various stages of development. Some countries have just recently opened their borders to MNCs. Many of these countries do not offer sufficient food or drink products to their consumers.

5. International Opportunities Due to the Internet.

- a. What factors cause some firms to become more internationalized than others?

ANSWER: The operating characteristics of the firm (what it produces or sells) and the risk perception of international business will influence the degree to which a firm becomes internationalized. Several other factors such as access to capital could also be relevant here. Firms that are labor-intensive could more easily capitalize on low-wage countries while firms that rely on technological advances could not.

- b. Why might the Internet have resulted in more international business.

ANSWER: The Internet allows for easy and low-cost communication between countries, so that firms could now develop contacts with potential customers overseas by having a website. Many firms use their website to identify the products that they sell, along with the prices 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, they can add to their product line and change prices by simply revising their website, so importers are kept abreast of the exporter's product information by monitoring the exporter's website periodically. Firms can also use their websites to accept orders online. Some firms with an international reputation use their brand name to advertise products over the internet. They may use manufacturers in some foreign countries to produce some of their products subject to their specification

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.

ANSWER: Plak's valuation should increase because the appreciation of the euro will increase the dollar value of the cash flows remitted by the European subsidiaries.

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.

ANSWER: Growth in international business can be stimulated by (1) access to foreign resources which can reduce costs, or (2) access to foreign markets which boost revenues. Yet, international business is subject to risks of exchange rate fluctuations, and political risk (such as a possible host government takeover, tax regulations, etc.).

- 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.

ANSWER: The valuation of the MNC is the present value of expected cash flows. The increase in risk results in a higher expected return, which reduces the present value of the expected future cash flows.

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

ANSWER: The agency problem would be more pronounced for Oakland because of a higher probability that subsidiary decisions would conflict with the parent. Assuming that the parent attempts to maximize shareholder wealth, decisions by the parent should be compatible with shareholder objectives. If the subsidiaries made their own decisions, the agency costs would be higher since the parent would need to monitor the subsidiaries to assure that their decisions were intended to maximize shareholder wealth.

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

ANSWER: Standardized product specifications allow firms to more easily expand their business across other countries, which increases global competition.

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

ANSWER: The subsidiary and its customers based in countries that now use the euro as their currency would no longer be exposed to exchange rate risk. However, McCanna Corp is exposed to exchange rate risk, because the subsidiary will ultimately remit its earnings to the parent, and the euro earnings will be converted to dollars when they are remitted.

- 12. Macro versus Micro Topics.** Review this book's table of contents and indicate whether each of the chapters from Chapter 2 through Chapter 21 has a macro or micro perspective.

ANSWER: Chapters 2 through 8 are macro, while Chapters 9 through 21 are micro.

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

ANSWER: A licensing agreement has limited potential for return, because the foreign firm will receive much of the benefits as a result of the licensing agreement. Yet, the MNC has limited risk, because it did not need to invest substantial funds in the foreign country.

An acquisition by the MNC requires a substantial investment. If this investment is not a success, the MNC may have trouble selling the firm it acquired for a reasonable price. Thus, there is more risk. However, if this investment is successful, all of the benefits accrue to the MNC.

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

- a. Describe the tradeoffs that are involved for each method (such as exporting, direct foreign investment, and so on) that Snyder could use to achieve its goal.

ANSWER: Snyder can export the clubs, but the transportation expenses may be high. It could establish a subsidiary in Brazil to produce and sell the clubs, but this may require a large investment of funds. It could use licensing, in which it specifies to a Brazilian firm how to produce the clubs. In this way, it does not have to establish its own subsidiary there.

- b. Which method of international method would you recommend for this firm? Justify your recommendation.

ANSWER: If the amount of golf clubs to be sold in Brazil is small, it may decide to export. However, if the expected sales level is high, it may benefit from licensing. If it is confident that the expected sales level will remain high, it may be willing to establish a subsidiary. The wages are lower in Brazil, and the large investment needed to establish a subsidiary may be worthwhile.

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

ANSWER: Political risk increases the rate of return required to invest in foreign projects. Some foreign projects would have been feasible if there was no political risk but will not be feasible because of political risk.

16. Impact of 9/11. Following the terrorist attack on the U.S., 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 attacks.

ANSWER: An MNC's cash flows could be reduced in the following ways. First, a decline in travel would affect any MNCs that have business in travel-related industries. The airline, hotel, and tourist-related industries were expected to experience a decline in business. Layoffs were announced immediately by many of these MNCs. Second, these effects on travel-related industries can carry over to other industries and weaken economies. Third, the cost of international trade increased as a result of tighter restrictions on some products. Fourth, some MNCs incurred expenses as a result of increasing security to protect their employees.

Advanced Questions

17. International Joint Venture. Anheuser-Busch, (which is now part of AB InBev due to a merger), the producer of Budweiser and other beers, has engaged in a joint venture with Kirin Brewery, the largest brewery in Japan. The joint venture enables 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.

- a. Explain how the joint venture enabled Anheuser-Busch to achieve its objective of maximizing shareholder wealth.

ANSWER: The joint venture creates a way for Anheuser-Busch to distribute Budweiser throughout Japan. It enables Anheuser-Busch to penetrate the Japanese market without requiring a substantial investment in Japan.

- b. Explain how the joint venture limited the risk of the international business.

ANSWER: The joint venture has limited risk because Anheuser-Busch does not need to establish its own distribution network in Japan. Thus, Anheuser-Busch may be able to use a smaller investment for the international business, and there is a higher probability that the international business will be successful.

- c. Many international joint ventures are intended to circumvent barriers that might otherwise 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?

ANSWER: Anheuser-Busch is able to benefit from Kirin's distribution system in Japan, which would not normally be so accessible. Kirin is able to learn more about how Anheuser-Busch expanded its product across numerous countries, and therefore breaks through an "information" barrier.

- d. Explain how Anheuser-Busch could have lost some of its market share in countries outside Japan as a result of this particular joint venture.

ANSWER: Anheuser-Busch could lose some of its market share to Kirin as a result of explaining its worldwide expansion strategies to Kirin. However, it appears that Anheuser-Busch expects the potential benefits of the joint venture to outweigh any potential adverse effects.

- 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 next year's actual Eastern European market share next year?

ANSWER: It would likely overestimate its market share because the competition should increase as competitors penetrate the European countries.

- 19. Valuation of an MNC.** Birm Co., based in Alabama, is considering several international opportunities in Europe that could affect the firm's value. The valuation depends 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 of the following opportunities, identify the factors that will be affected.

- a. Birm plans a licensing deal in which it will sell technology to a firm in Germany for \$3,000,000; the payment is invoiced in dollars, and this project has the same risk level as its existing businesses.
- b. Birm plans to acquire a large firm in Portugal that is riskier than its existing businesses.
- c. Birm plans to discontinue its relationship with a U.S. supplier so that can import a small amount of supplies (denominated in euros) at a lower cost from a Belgian supplier.
- d. Birm plans to export a small amount of materials to Ireland that are denominated in euros.

ANSWER:

Opportunity	Dollar CF	Euro CF	Exchange rate at which Birm Co. converts euros to dollars	Birm's weighted average cost of capital
a. joint venture	X			
b. acquisition		X		X
c. imported supplies		X		
d. exports to Ireland		X		

20. Assessing Motives for International Business. Fort Worth Inc. specializes in manufacturing some basic parts for sports utility vehicles that are produced and sold in the U.S. Its main advantage in the U.S. is that its production is efficient, and less costly than that of some other unionized manufacturers. It has a substantial market share in the U.S. Its manufacturing process is labor-intensive. The company pays relatively low wages compared to its U.S. competitors, but it 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 expand for the following reasons. Offer your opinion on whether the consultant's reasons are logical:

- a. Theory of Competitive Advantage: Not many SUVs are sold in Mexico; hence, Fort Worth Inc. would not face much competition there.
- b. Imperfect Markets Theory: Fort Worth can not easily transfer workers to Mexico, but it can establish a subsidiary there that it can use to penetrate a new market.
- c. Product Cycle Theory: Fort Worth Inc. has been successful in the U.S. It has limited growth opportunities because it already controls much of the U.S. market for the parts it produces. The natural next step is to conduct the same business in a foreign country.
- d. Exchange Rate Risk. The exchange rate of the peso has weakened recently, which would allow Fort Worth to build a plant in Mexico 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.

ANSWER: None of the arguments by the consultant are logical. If SUVs are not sold in the Mexican market, there is no need for these parts in Mexico. Fort Worth Inc. should only attempt to penetrate a new market if there is demand. Just because it has limited growth potential in the U.S., this does not mean that there will be demand for its product in Mexico. Even if the exchange rate is low relative to recent periods, it could decline further, which would adversely affect any the dollar amount of future remitted earnings. Stable political conditions in Mexico are not a sufficient reason to pursue direct foreign investment there.

- 21. Valuation of Walmart's International Business** In addition to its stores in the United States, Walmart Stores, Inc. has numerous retail units in Argentina, Brazil, Canada, China, Mexico, and the United Kingdom. Consider that the value of Walmart is 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 Walmart businesses outside the United States.

ANSWER: The non-U.S. part can be measured as the present value of future dollar cash flows resulting from the non-U.S. businesses. Based on recent earnings data for each store and applying an expected growth rate, you can estimate the remitted earnings that will come from each country in each year in the future. You can convert those cash flows to dollars using a forecasted exchange rate per year. Determine the present value of cash flows of all stores within one country. Then repeat the process for other countries. Then add up all the present values that you estimated to derive a consolidated present value of all non-U.S. subsidiaries.

- 22. Impact of International Business on Cash Flows and Risk.** Nantucket Travel Agency specializes in tours for American tourists. Until recently, all its business was in the U.S. It just established a subsidiary in Athens, Greece, which provides tour services in the Greek islands for American visitors. This subsidiary 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.

ANSWER: It already has established credibility with American tourists, but could penetrate a new market with some of the same customers that it has served on tours in the U.S.

- b. Nantucket is privately-owned by owners who reside in the U.S. 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?

ANSWER: The employees of the subsidiary in Athens are not owners and may have no incentive to manage in a manner that maximizes the wealth of the owners. Thus, they may manage the tours inefficiently. Nantucket could attempt to allow the employees a portion of the ownership of the company so that they benefit more directly from good performance. Alternatively, Nantucket may consider having one of its owners transfer to Athens to oversee the subsidiary's operations.

- 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.

ANSWER: The low cost of rent and labor will be beneficial to Nantucket, because it enables Nantucket to create the subsidiary at a low cost.

- 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.

ANSWER: Nantucket's tour business in Greece results in dollar cash inflows and euro cash outflows. It will be adversely affected by the appreciation of the euro because it will require more dollars to cover the costs in Athens if the euro's value rises.

- 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 then 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.

ANSWER: No. The euro loans would be used to cover euro expenses, but Nantucket would need dollars to pay off the loans. Alternatively, the U.S. dollar loans would still require conversion of dollars to euros. With either type of loan, Nantucket is still adversely affected by the appreciation of the euro against the dollar.

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

ANSWER: The subsidiary could be subject to government restrictions or taxes in Greece that would place it at a disadvantage relative to other Greek tour companies based in Athens.

- 23. Valuation of an MNC.** Rose Co. (a U.S. firm) has expanded its business by establishing networking portals in numerous countries, including Argentina, Australia, China, Germany, Ireland, Japan, and the U.K. 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 Rose 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 Rose would change if most investors suddenly expected that the dollar would weaken against most currencies over time.

ANSWER: The valuation of Rose Co. should increase because the present value of expected dollar cash flows to be received would increase.

- 24. Uncertainty Surrounding an MNC's Valuation.** Carlisle Co. is a U.S. firm that is about to purchase a large company in Switzerland for \$20 million. This company, which produces furniture and sells it locally (in Switzerland), is expected to earn large profits every year. Following its acquisition, the company will become a subsidiary of Carlisle and will periodically remit the excess cash flows from 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

reputable and there would be no exposure to country risk when using one 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 from a Swiss firm? Explain briefly.

ANSWER: The valuation of Carlisle Co. is more uncertain if it uses a U.S. supplier because it will have a larger amount of cash flows that will be remitted from Switzerland and converted into dollars. If it obtains supplies from Switzerland, it can use a portion of its Swiss franc cash flows to cover the cost and will convert a smaller number of francs into dollars on a periodic basis. Thus, it is less exposed when sourcing from Switzerland.

- 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 company; the parent then sells these products in the U.S. The assembled products are invoiced in dollars. It uses Polish currency (the zloty) to produce these chips and assembles them in Poland. The Polish subsidiary pays the employees in the local currency (zloty). Olmsted Co. finances its subsidiary operations with loans from a Polish bank (in zloty). The parent of Olmsted sends sufficient monthly payments (in dollars) to the subsidiary 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.

ANSWER: It will have a favorable effect because Olmsted incurs expenses in the zloty and it will be able to cover these expenses with fewer dollars if the zloty depreciates. It will also be able to repay the zloty loan with fewer dollars if the zloty depreciates.

- 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 might affect the valuation of Minneapolis Co.

ANSWER: The future dollar cash flows of Minneapolis Co. are now more uncertain, which can increase its cost of capital (the denominator of the MNC valuation equation) and reduce its valuation.

- 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 is presently valued at \$1.38 and is expected to depreciate by 2 percent each year. The peso is valued at \$.13 and is expected to depreciate by 2 percent each year. 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?

ANSWER: The movements in the euro are expected to have an unfavorable effect on Arlington's value. The expected movements in the peso are expected to have a favorable effect on Arlington's value. However, the expected peso effect should be smaller because the dollar amount of business in pesos is smaller. Thus, the overall effect should be unfavorable.

- 28. Impact of a Recession on an MNC's Value.** If a U.S. recession occurred without any change in interest rates, identify the part of the MNC valuation equation that would likely be most affected.

ANSWER: The domestic cash flows would likely be reduced as a result of the U.S. recession, which would reduce the valuation of the MNC.

- 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. The wholly owned subsidiary was created to improve new products that 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. Melnick has just obtained a large baht-denominated loan that will be used to expand its subsidiary. The business that the parent company 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 unaffected? Briefly explain.

ANSWER: It will be favorably affected since it needs fewer dollars over time to cover its loan payments and its baht expenses. Its revenue is mostly in dollars and therefore will not be significantly affected by a depreciation of the baht.

- 30. Shareholder Rights of Investors in MNCs.** MNCs tend to expand more when they more easily access funds by issuing stock. In some countries, shareholder rights are very limited and so the MNCs are less able to raise funds by issuing stock. Explain why access to funding is more restricted for MNCs based in countries where shareholder rights are limited.

ANSWER: Shareholders may be concerned that the agency problems of the local firms would be very severe, if there are no laws that grant shareholders rights. They will only purchase stock if they have rights that can help them force managers of local firms to serve shareholder interests. Local investors can invest their money in other countries where there are shareholder rights.

- 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, which then sells products in the U.S. 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 exported materials. 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.

Tuscaloosa Co. has no cash inflows in Argentine pesos but has cash outflows in Argentine pesos. Therefore, it benefits if the peso depreciates because it can obtain pesos with fewer dollars and can reduce its cost.

- 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 this facility. Asheville Co. has no other international business. All operations are presently funded by the parent company. All the software is sold to U.S. firms by the parent company and is invoiced in U.S. dollars.

- a. If the Mexican peso appreciates against the dollar, will this have a favorable effect, an unfavorable effect, or no effect on Asheville's value?
- b. Asheville Co. plans to borrow funds to support its expansion in the U.S. The Mexican interest rates are presently lower than U.S. interest rates, so Asheville obtains a loan denominated in Mexican pesos to support its expansion in the U.S. Will the borrowing of pesos increase, decrease, or have no effect on its exposure to exchange rate risk? Briefly explain.

ANSWER:

- a. Appreciation of the peso has an unfavorable effect because it results in higher dollar expenses to Asheville Co.
- b. Borrowing pesos will increase Asheville's exposure because it will increase the amount of dollar cash outflows that are needed to cover expenses.

33. Estimating an MNC's Cash Flows. Biloxi Co. is a U.S. firm with a subsidiary in China. The subsidiary reinvests half of its net cash flows into operations and remits half to the parent. Biloxi Co. has expected cash flows of \$10 million from domestic business and the Chinese subsidiary is expected to generate 100 million Chinese yuan at the end of the year. The expected value of yuan at the end of the year is \$.13. What are the expected dollar cash flows of the parent, Biloxi Co., in one year?

ANSWER:

$$[\$10,000,000 + 100,000,000]/2[.\$13] = 16,500,000.$$

34. Uncertainty Surrounding an MNC's Cash Flows.

- a. Assume that Bangor Co. (a U.S. firm) knows that it will have cash inflows of \$900,000 from domestic operations, cash inflows of 200,000 Swiss francs resulting from exports to Swiss operations, and cash outflows of 500,000 Swiss francs at the end of the year. Although the future value of the Swiss franc is uncertain, your best guess is that it will be worth \$1.10 at the end of this year. What are the expected dollar cash flows of Bangor Co?
- b. Assume that Concord Co. (a U.S. firm) is in the same industry as Bangor Co. There is no political risk that could have any impact on the cash flows of either firm. Concord Co. knows that it will have cash inflows of \$900,000 from domestic operations, cash inflows of 700,000 Swiss francs from exports to Swiss operations, and cash outflows of 800,000 Swiss francs at the end of the year. Is the valuation of the total cash flows of Concord Co. more uncertain or less uncertain than the total cash flows of Bangor Co.? Explain briefly.

ANSWER:

$$a. \$900,000 + (-\$300,000 \times \$1.10) = \$570,000$$

- b. The cash flows of Bangor are more uncertain because a larger proportion of the cash flows are subject to exchange rate risk.

35. Valuation of an MNC. Odessa Co., Midland Co., and Roswell Co. are U.S. firms in the same industry and have the same valuation as of yesterday, based on the present value of the future cash flows of each company. Odessa Co. obtains a large amount of its supplies invoiced in euros from European countries, and all its sales are invoiced in dollars. Midland has a large subsidiary in Europe that does all its business in euros and remits profits to the U.S. parent every year. Roswell Co. has no international business. As of this morning, an event occurs that you believe will cause a substantial depreciation of the euro against the dollar over time but assume this event will not change the business operations of the firms mentioned. Which firm will have the highest valuation based on your expectations? Briefly explain.

ANSWER

Odessa Co. will have the highest valuation because it benefits from the expected depreciation over time. Midland would be adversely affected by the euro's depreciation.

- 36. Impact of Uncertainty on an MNC's Valuation.** Assume that Alpine Co. is a U.S. firm that has direct foreign investment in Brazil as a result of establishing a subsidiary there. Political conditions have changed in Brazil, but the best guesses by investors regarding the future annual cash flows for Alpine Co. have not changed despite the uncertainty surrounding these best guesses of Alpine's cash flows. In other words, the distribution of possible outcomes above and below these best guesses has widened. Would this change in uncertainty cause the prevailing value of Alpine Co. to increase, decrease, or remain unchanged? Briefly explain.

ANSWER: The increase in uncertainty surrounding cash flows would cause the prevailing value of Alpine Co. to decrease because the required rate of return by investors would increase. Thus, the numerator of the valuation of Alpine Co. has not changed, but the denominator has increased, resulting in a lower valuation.

37. Exposure of MNC Cash Flows.

- a. Rochester Co. is a U.S. firm that operates a language institute in France. This institute attracts Americans who want to learn the French language. Rochester Co. charges tuition to the American students in dollars. It expects that its dollar revenue from charging tuition will remain stable over each of the next several years. Rochester's total expenses for this business project are as follows. It rents a facility in Paris and makes a large rent payment each month in euros. It also hires several French citizens as full-time instructors and pays their salary in euros. Rochester Co. expects that its euro-denominated expenses will be stable over each of the next several years. If the euro appreciates against the dollar over time, should this have a favorable effect, an unfavorable effect, or no effect on the value of Rochester Co.? Briefly explain.

ANSWER: It should have an unfavorable effect because it will take more dollars to cover the euro expenses over time. Thus, the net cash flows in dollars generated by Rochester should decrease over time.

- b. Rochester considers a new project in which it would also attract people from Spain, and the institute in France would teach them the French language. It would charge these students tuition in euros. The expenses for this project would be about the same as those described in part (a) for American students. Assume that euros to be generated by this project would remain stable over the next several years. Assume that this project is about the same size as the project for American students. For either project, the expected annual revenue is just slightly larger than the expected annual expenses. Is the valuation of net cash flows subject to a higher degree of exchange rate risk for this project or for the project for American students? Briefly explain.

ANSWER: The valuation of net cash flows for the project focused on American students is more uncertain, because the invoice currency and currency denominating expenses are different. The project for students in Spain uses the same currency (euros) to generate revenue as the currency that it needs to cover expenses.

CRITICAL THINKING

Impact of the International Environment on MNC Cash Flows Conduct an online search to review a recent annual report of the operations of any publicly-traded U.S.-based MNC. Write a brief essay in which you describe how the MNC's cash flows are exposed to the international environment. Is the MNC you selected most exposed to a particular currency? If so, how would depreciation of that currency against the dollar affect the value of the MNC? Is the MNC exposed to economic conditions in a particular foreign country? If so, describe how a change in the conditions of that country could adversely affect the MNC's cash flows.

ANSWER

This essay is intended to allow students to learn from their own application how the MNC's valuation and cash flows could be adversely affected by its exposure to one or more foreign currencies and country economies.

Solution to Continuing Case Problem: Blades, Inc.

1. What are the advantages Blades could gain from importing from and/or exporting to a foreign country such as Thailand?

ANSWER: The advantages Blades, Inc. could gain from importing from Thailand include potentially lowering Blades' cost of goods sold. If the inputs (rubber and plastic) are cheaper when imported from a foreign country such as Thailand, this would increase Blades' net income. Since numerous competitors of Blades are already importing components from Thailand, importing would increase Blades' competitiveness in the U.S., especially since its prices are among the highest in the roller blade industry. Furthermore, since Blades is considering longer range plans in Thailand, importing from and exporting to Thailand may present it with an opportunity to establish initial relationships with some Thai suppliers. As far as exporting is concerned, Blades, Inc. could be one of the first firms to sell roller blades in Thailand. Considering that Blades is contemplating to eventually shift its sales to Thailand, this could be a major competitive advantage.

2. What are some of the disadvantages Blades could face as a result of foreign trade in the short run? In the long run?

ANSWER: There are several potential disadvantages Blades, Inc. should consider. First of all, Blades would be exposed to currency fluctuations in the Thai baht. For example, the dollar cost of imported inputs may become more expensive over time if the baht appreciates even if Thai suppliers do not adjust their prices. However, Blades' sales in Thailand would also increase in dollar terms if the baht appreciates, even if Blades does not increase its prices. Blades, Inc. would also be exposed to the economic conditions in Thailand. For example, if there is a recession, Blades would suffer from decreased sales to Thailand.

In the long run, Blades should be aware of any regulatory and environmental constraints the Thai government may impose on it (such as pollution controls). Furthermore, the company should be aware of the political risk involved in operating in Thailand. For example, the likelihood of expropriation by the Thai government should be assessed. Another important issue involved in Blades' long-run plans is how the foreign subsidiary would be monitored. Geographical distance may make monitoring very difficult. This is an especially important point since Thai managers may conform to goals other than the maximization of shareholder wealth.

3. Which theories of international business described in this chapter apply to Blades, Inc. in the short run? In the long run?

ANSWER: There are at least three theories of international business: the theory of comparative advantage, the imperfect markets theory, and the product cycle theory. In the short run, Blades would like to import from Thailand because inputs such as rubber and plastic are cheaper in Thailand. Also, it would like to export to Thailand to take advantage of the fact that few roller blades are currently sold in Thailand. Both of these factors suggest that the imperfect markets theory applies to Blades in the short run. In the long run, the goal is to possibly establish a subsidiary in Thailand and to be one of the first roller blade manufacturers in Thailand. The superiority of its production process suggests

that the theory of comparative advantage would apply to Blades in the long run. However, the product cycle theory also applies to Blades, since its U.S. sales are declining, and Blades feels that it must eventually establish a subsidiary in Thailand in order to preserve its competitive advantage over Thai competitors.

4. What long-range plans *other* than establishing a subsidiary in Thailand are possible for Blades? Would these other options be more suitable for the company?

ANSWER: Since Ben Holt is very unfamiliar with international business, and since Blades has never operated outside the United States, establishment of a subsidiary in Thailand is probably not the best way for Blades, Inc. to gain a foothold in Thailand in the long run. Blades should initially consider a joint venture with Thai firms that manufacture roller blades. The advantage would be access to Thai distribution channels, familiarity of the Thai firm with customs and ethics in Thailand, and an established market. Of course, since Blades' production process is unique, a joint venture would provide the Thai subsidiary with knowledge of the production purposes, which it may duplicate after the joint venture terminates.

Solution to Supplemental Case: Ranger Supply Company

This case is simply intended to force students to think about reasons for or against international business. As with most cases, there are no perfect solutions, but there are some general conclusions that can be drawn.

- a. Some of the more obvious factors to consider are:
 1. Competition. There are similar distributors in Canada, whereas Eastern Europe may not have an organized system for the distribution of office supplies. Yet, some European firms (like the British competitor) may attempt to pursue the Eastern European market.
 2. Transportation Costs. The costs of transporting office supplies to Eastern Europe would be high, placing Ranger at a relative disadvantage compared to other European firms.
 3. Export Barriers. Either country could impose tariffs or quotas on the exports. Canada is less likely than Eastern European countries to impose such restrictions.
 4. Marketing Characteristics. Ranger would have an easier time adapting to the Canadian market. The information about Eastern Europe firms would be more limited. Thus, Ranger would be unable to identify many of the firms that may need office supplies, unless it expended funds to search for newly opened retail stores. Furthermore, these stores may prefer to deal with a supplier that is not so distant. For example, they may have connections with Western Europe suppliers. Since Ranger has no experience in Eastern Europe, it may be at a disadvantage in attempting to penetrate that market.
 5. Exchange Rates. The future exchange rates of the Canadian dollar and currencies of Eastern European countries could be relevant. Even if Ranger plans to invoice the exports in dollars, the future exchange rates will influence the amount of foreign currency needed by the firms in Canada or Eastern Europe to purchase the supplies. Therefore, foreign demand for the supplies will be influenced by the exchange rates. The future Eastern European currency values are more uncertain. In fact, the governments may even prevent conversion of these currencies into U.S. dollars.

Overall, most of the factors would favor Canada as the more reasonable market to pursue.

- b. Recall that the reason for Ranger to expand overseas was to offset the anticipated U.S. demand for its supplies. In this way, it could maintain its present production level and avoid problems with excess employment. Establishing a subsidiary in another country defeats the idea of maintaining the production level in the U.S. Many employees would probably not be willing to relocate without substantial compensation. The firm would now have two plants instead of one, which could prevent it from fully capitalizing on economies of scale.

Small Business Dilemma

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. The “Small Business Dilemma” in each chapter allows 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.

Developing a Multinational Sporting Goods Corporation

1. Is Sports Exports Company a multinational corporation?

ANSWER: Sports Exports Company is a multinational corporation because it sells products to foreign countries.

2. Why are the agency costs lower for Sports Exports Company than for most MNCs?

ANSWER: Agency costs are lower because the owner and manager are the same. The owner does not have managers who are based in other countries (at least, not initially).

3. Does Sports Exports Company have any comparative advantage over potential competitors in foreign countries that could produce and sell footballs there?

ANSWER: The Sports Exports Company has a comparative advantage of applying an idea that has been successful in the U.S. to other countries. If football becomes a popular idea in foreign countries, the Sports Exports Company will be the first firm to benefit from the popularity. While other firms may then attempt to copy the idea, the Sports Exports Company will have established itself as the most well-known company for selling footballs in foreign markets by then. Also, the Sports Exports Company has a comparative advantage over the U.S. firms that produce the top-of-the-line footballs in the U.S. market in that it sells the footballs at a low price. Thus, if these firms attempt to pursue more international business someday, they will not necessarily be able to compete with the Sports Exports Company in foreign markets. The name recognition may not be as effective in foreign markets where the product has not existed.

4. How would Jim Logan decide which foreign markets he would attempt to enter? Should he initially focus on one or many foreign markets?

ANSWER: Jim would need to consider various factors, such as the potential demand for footballs in each country and the potential degree of competition in that country. He may also consider the volatility of the foreign currency in each country relative to the dollar.

While Jim may someday wish to spread his international business across several different countries, he initially may focus on one specific country when establishing his international business. It is possible that he could find a distributor of sporting goods that would sell the footballs to retail stores in various countries. Yet, he could focus on providing the footballs to the distributor and would not have to be traveling to various countries.

5. Sports Exports Company has no immediate plans to engage in 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?

ANSWER: The Sports Exports Company may consider a licensing agreement whereby it has a foreign firm produce its footballs and sell them; this would avoid the cost of exporting but would result in expenses charged by the foreign company. Sports Exports Company might also consider an arrangement in which it exports the footballs exclusively to a specific foreign firm that focuses on distributing sporting goods to retail stores in various countries. That foreign firm would charge a mark-up beyond the price that it is charged when purchasing the footballs.

Running Your Own MNC

This project is provided in the text companion site. The exercises required within this project allow students to recognize how the key concepts of each chapter can be applied to the multinational business that they create. There is no standardized answer key that can be used to grade the projects, because the student answers are dependent on the multinational business that they create. The main goal in grading this project is to ensure that students are using proper logic when explaining how their multinational business is exposed to the international environment.

International Investing Project

This project is provided in Appendix D in the back of the text and is also available in the text companion site. It may be used as a project assignment that is to be completed by the end of the semester. Since students select their own international investments, their projects vary. There is no standardized answer key that can be used to grade the projects, because the student answers are dependent on the international investments they select, along with the real time performance of those investments and other international conditions that occur during the school term. The exercises required within this project allow students to recognize how the international investments that they selected at the beginning of the school term were influenced by international economic conditions during the school term. The main goal in grading this project is to ensure that students are using proper logic when explaining how their international investments are exposed to the international environment.

Discussion in the Board Room

This exercise is provided in Appendix E in the back of the text. It may be used as a project assignment that is to be completed by the end of the semester. Possible answers to the discussion questions are provided at the end of this Instructor's Manual (at the end of Chapter 21). If you use this

appendix for in-class discussion on a weekly basis, you may benefit from making a copy of the discussion questions and possible answers provided at the end of the Instructors Manual so that you have easy access to this exercise each week in class.