

Chapter 1

Multinational Financial Management: An Overview

Lecture outline

Managing the MNC

- How business discipline are used to manage the MNC
- Agency problems
- Management structure of an MNC

Why companies pursue international business

- Theory of comparative advantage
- Imperfect markets theory
- Product cycle theory

How companies engage in international business

- International trade
- Licensing
- Franchising
- Joint ventures
- Acquisitions of existing operations
- Establishment of new foreign subsidiaries
- Summary of methods

Valuation model for an MNC

- Domestic model
- Multinational model
- Uncertainty surrounding an MNC's cash flows
- Summary of international effects
- How uncertainty affects the MNC's cost of capital

The global financial crisis

- Fundamental cause of the GFC
- Foreign exchange markets
- MNC currency risk management

Organisation 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. This chapter also describe the impact of global financial crisis on the foreign exchange market and MNCs' FX risk management.

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. How can the MNCs manage the foreign exchange risk?

Point counter-point

Should an MNC reduce its ethical standards to compete internationally?

POINT: Yes. When an Australia-based MNC competes in some countries, it may encounter some business norms there that are not allowed in Australia. For example, when competing for a government contract, companies might provide pay-offs to the government officials who will make the decision. Yet, in Australia, a company will sometimes take a client on an expensive golf outing or provide tickets for a luxury box at events. This is no different than a pay-off. If the pay-offs are bigger in some foreign countries, the MNC can compete only by matching the pay-offs provided by its competitors.

COUNTER-POINT: No. An Australia-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 company 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 cannot 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 company?

ANSWER: The agency costs are normally larger for MNCs than purely domestic companies 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. 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 specialise 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 company will attempt to capitalise 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, labour, 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 the acquisition of a foreign company 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 more risky because it normally requires a larger investment and the decision cannot 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 companies may avoid opportunities because they lack knowledge about foreign markets or expect that the risks are excessive. Thus, the size of these companies is not affected by the opportunities.

- c. Explain why MNCs such as Coca-Cola and PepsiCo, Inc., 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 companies to become more internationalised than others?

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

- b. Offer your opinion on why the internet may result in more international business.

ANSWER: The internet allows for easy and low-cost communication between countries, so that companies could now develop contacts with potential customers overseas by having a website. Many companies 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. Companies can also use their websites to accept orders online. Some companies 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** Globe International of Melbourne has several Asian subsidiaries that remit earnings to it each year. Explain how appreciation of the Chinese yuan would affect Globe International's valuation.

ANSWER: Globe International's valuation should increase because the appreciation of the Chinese yuan will increase the Australian dollar value of the cash flows remitted by the Asian 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** Amart Sports, an Australian company, has a subsidiary in India, where political risk has recently increased. Amart's best guess of its future Indian rupee 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. Centralisation 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 decentralised 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 maximise 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 maximise shareholder wealth.

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

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

- 11. Exposure to exchange rates** Australian Vintage 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 as the currency used in France. Is Australian Vintage 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, Australian Vintage 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 Australian dollars when they are remitted.

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.

ANSWER: Chapters 2, 3, 4, 5, 6, 7, 8, 10, 19 and 21 are macro; chapters 9, 11, 12, 13, 15, 18 and 20 are micro; chapters 14, 16 and 17 are both macro and micro.

13. Methods used to conduct international business Duve, Inc., desires to penetrate a foreign market with either a licensing agreement with a foreign company or by acquiring a foreign company. Explain the differences in potential risk and return between a licensing agreement with a foreign company and the acquisition of a foreign company.

ANSWER: A licensing agreement has limited potential for return, because the foreign company 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 company 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 Sydney Golf Co., an Australian company that sells high-quality golf clubs in Australia, wants to expand internationally by selling the same golf clubs in China.

a. Describe the trade-offs that are involved for each method (such as exporting, direct foreign investment, etc.) that Sydney Golf Co. could use to achieve its goal.

ANSWER: Sydney can export the clubs, but the transportation expenses may be high. It could establish a subsidiary in China 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 Chinese company 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 company? Justify your recommendation.

ANSWER: If the amount of golf clubs to be sold in China 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 China 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 September 11 Following the terrorist attack on the United States, the valuations of many MNCs declined by more than 10 per cent. 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 An Australian-based beer company, Coopers Brewery Ltd., a producer of world-class beers, has engaged in a joint venture with Kirin Brewery, the largest brewery in Japan. The joint venture enables Coopers to have its beer distributed through Kirin's distribution channels in Japan. In addition, it can utilise Kirin's facilities to produce beer that will be sold locally. In return, Coopers provides information about the Australian beer market to Kirin.

- a. Explain how the joint venture enabled Coopers to achieve its objective of maximising shareholder wealth.

ANSWER: The joint venture creates a way for Coopers to distribute world-class beers throughout Japan. It enables Coopers 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 Coopers does not need to establish its own distribution network in Japan. Thus, Coopers 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 normally prevent foreign competition. What barrier in Japan did Coopers circumvent as a result of the joint venture? What barrier in Australia did Kirin circumvent as a result of the joint venture?

ANSWER: Coopers 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 Coopers expanded its product across numerous countries and therefore breaks through an 'information' barrier.

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

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

18. Impact of Eastern European growth The managers of iiNet recently had a meeting to discuss new opportunities in Asia as a result of the recent integration among Asian countries. They decided not to penetrate new markets because of their present focus on expanding market share in Australia. iiNet's financial managers have developed forecasts for earnings based on the 12 per cent market share

(defined here as its percentage of total Asian sales) that iiNet currently has in South Asia. Is 12 per cent an appropriate estimate for next year's South Asian market share? If not, does it likely overestimate or underestimate the actual South Asian market share next year?

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

19. Valuation of an MNC TechnologyOne, based in Sydney, is considering several international opportunities in Asia that could affect the value of company. The valuation is dependent on four factors: (1) expected cash flows in Australian dollars, (2) expected cash flows in different Asian currencies (Indian rupees, Chinese yuan and Malaysian ringgit) that are ultimately converted into Australian dollars, (3) the rate at which it can convert all Asian currencies in (2) to Australian dollars, and (4) TechnologyOne's weighted average cost of capital. For each opportunity, identify the factors that would be affected.

- a. TechnologyOne plans a licensing deal in which it will sell technology to a company in Hong Kong for A\$3 million; the payment is invoiced in Australian dollars, and this project has the same risk level as its existing businesses.
- b. TechnologyOne plans to acquire a large company in India that is riskier than its existing businesses.
- c. TechnologyOne plans to discontinue its relationship with an Australian supplier so that can import a small amount of supplies (denominated in Chinese yuan) at a lower cost from a China supplier.
- d. TechnologyOne plans to export a small amount of materials to Malaysia that are denominated in Malaysian ringgits.

ANSWER:

| Opportunity | Australian dollar CF | Asian currencies CF | Exchange rate at which TechnologyOne converts Asian currencies to Australian dollars | TechnologyOne's weighted average cost of capital |
|------------------------|----------------------|---------------------|--|--|
| a. joint venture | X | | | |
| b. acquisition | | X (rupee) | X (A\$/rupee) | X |
| c. imported supplies | | X (yuan) | X (A\$/yuan) | |
| d. exports to Malaysia | | X (ringgit) | X (A\$/ringgit) | |

20. Assessing motives for international business Amart Sports specialises in manufacturing some basic parts for sports utility vehicles (SUVs) that are produced and sold in Australia. Its main advantage in Australia is that its production is efficient and less costly than that of some other unionised manufacturers. It has a substantial market share in Australia. Its manufacturing process is labour-intensive. It pays relatively low wages compared to Australian competitors but has guaranteed 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 China, where the parts would be produced. The

consultant suggested that Amart Sports should expand for the following reasons. Offer your opinion on whether the consultant's reasons are logical.

- a. Theory of competitive advantage: Not many SUVs sold in China, so Amart Sports would not have to face much competition there.
- b. Imperfect markets theory: Amart Sports cannot easily transfer workers to China, but it can establish a subsidiary there in order to penetrate a new market.
- c. Product cycle theory: Amart Sports has been successful in Australia. It has limited growth opportunities because it already controls much of Australian market for the parts it produces. Thus, the natural next step is to conduct the same business in a foreign country.
- d. Exchange rate risk: The exchange rate of the Chinese yuan has weakened recently, so this would allow Amart Sports to build a plant at a very low cost (by exchanging Australian dollars for the cheap yuan to build the plant).
- e. Political risk. The political conditions in China have stabilised in the last few months, so Amart Sports should attempt to penetrate the Chinese market now.

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

- 21. Valuation of WalMart's international business** In addition to all of its stores in the United States, Walmart Stores, Inc. 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 Walmart as being composed of two parts: a US part (due to business in the United States) and a non-US part (due to business in other countries). Explain how to determine the present value (in dollars) of the non-US part assuming that you have access to all the details of Walmart businesses outside the United States.

ANSWER: The non-US part can be measured as the present value of future dollar cash flows resulting from the non-US 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-US subsidiaries.

- 22. Impact of international business on cash flows and risk** Nantucket Travel Agency specialises 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 leasing 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 US office before they depart for Greece.

- a. Explain why Nantucket may be able to effectively capitalise 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 US.

- b. Nantucket is privately owned by people 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?

ANSWER: The employees of the subsidiary in Athens are not owners and may have no incentive to manage in a manner that maximises 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 labour 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 labour 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 favourably or unfavourably 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 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.

ANSWER: No. The euro loans would be used to cover euro expenses, but Nantucket would need dollars to pay off the loans. Alternatively, the US 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** 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 US dollars, its expected net cash flows in Australian dollars after converting them into US 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.

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

- 24. Uncertainty surrounding an MNC's valuation** Carlisle Co. is a US company that is about to purchase a large company in Switzerland for US\$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 US\$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 US 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 either supplier. Is the valuation of the total cash flows of Carlisle Co. more uncertain if it obtains its supplies from a US company or a Swiss company? Explain briefly.

ANSWER: The valuation of Carlisle Co. is more uncertain if it uses a US 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 amount of francs into US 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, 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). 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 favourable, unfavourable, or neutral effect on the value of Olmsted Co.? Briefly explain.

ANSWER: It will have a favourable 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 can 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 exchange rate is presently valued at US\$1.38 and is expected to depreciate by 2 per cent each year over time. The peso is valued at US\$0.13 and is expected to depreciate by 2 per cent each year over time. Review the valuation equation for an MNC. Do you think that the exchange rate movements will have a favourable or unfavourable effect on the MNC?

ANSWER: The movements in the euro are expected to have an unfavourable effect on Arlington's value. The expected movements in the peso are expected to have a favourable 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 unfavourable.

- 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 companies were affected as well. Explain why the numerator of the MNC valuation equation was affected during the 6-10 October 2008 period. Explain how the denominator of the MNC valuation equation was affected during that period.

ANSWER: The numerator of the MNC valuation equation represents cash flows. In October, 2008, the credit crisis intensified. Investors were concerned that the economic conditions in the US and in many other countries would deteriorate, which resulted in expectations of a reduced demand for exports produced by US companies. In addition, it resulted in expectations of reduced earnings of foreign subsidiaries and therefore a reduction in remitted earnings to the MNC's parent. These revised expectations reflected a reduction in cash flows to be received by the parent and therefore caused reduced valuations of MNCs.

The denominator of the MNC valuation equation reflects the cost of capital. The crisis increased the uncertainty surrounding the future cash flows, meaning that there was greater downside risk (that the cash flows could be much worse than expected). MNCs experienced a higher cost of capital, and therefore a higher required rate of return. Consequently, expected cash flows were discounted at a higher rate, which reduced the valuations of the MNCs.

- 29. Exposure of MNCs to exchange rate movements** Because of the low labour 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 US 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 both 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 three years, will the value of Melnick Co. be favourably affected, unfavourably affected, or unaffected? Briefly explain.

ANSWER: It will be favourably affected since it needs fewer US dollars over time to cover its loan payments and its baht expenses. Its revenue is mostly in US 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 the MNCs have a 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.

ANSWER: Shareholders may be concerned that the agency problems of the local companies 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 companies 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 US company that assembles phones in Argentina and transports the final assembled products to the parent, which sells them 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 the 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 US dollar over time, will that have a favourable, unfavourable, or neutral effect on Tuscaloosa Co.? Briefly explain.

ANSWER: 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 US dollars and can reduce its cost.

- 32. MNC cash flows and exchange rate risk** Asheville Co. (an Australian company) has a subsidiary in India that develops software for its parent. It rents a large facility in India and hires many people to work there. Asheville Co. has no other international business. All operations are presently funded by Asheville's parent. All the software is sold to Australian companies by Asheville's parent and is invoiced in Australian dollars.

- a. If the peso Indian rupee appreciates against the Australian dollar, does this have a favourable effect, an unfavourable effect, or no effect on Asheville's value?

ANSWER: Appreciation of the rupee has an unfavourable effect because it results in higher Australian dollar expenses to Asheville Co.

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

ANSWER: Borrowing rupees will increase Asheville's exposure because it will increase the amount of Australian dollar cash outflows that are needed to cover expenses.

- 33. Estimating an MNC's cash flows** Biloxi Co. is an Australian company 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 from domestic business equal to A\$10 million 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 A\$0.21. What are the expected dollar cash flows of the parent of Biloxi Co. in one year?

ANSWER: $[A\$10,000,000 + (100,000,000 \text{ yuan}/2) \times A\$0.21/\text{yuan}] = A\$20,500,000$

34. Uncertainty surrounding an MNC's cash flows

- a. Assume that Bangor Co. (an Australian company) knows that it will have cash inflows of A\$900,000 from domestic operations, cash inflows of 200,000 Malaysian ringgit (MYR) due to export to Malaysian operations, and cash outflows of 500,000 Malaysian ringgit at the end of the year. While the future value of the Malaysian ringgit is uncertain because it fluctuates, your best guess is that the Malaysian ringgit's value will be A\$0.35 at the end of this year. What are the expected Australian dollar cash flows of Bangor Co?

ANSWER: $[A\$900,000 + (-300,000 \text{ ringgit} \times A\$0.35/\text{ringgit})] = A\$795,000$

- b. Assume that Concord Co. (an Australian company) is in the same industry as Bangor Co. There is no political risk that could have any impact on the cash flows of either company. Concord Co. knows that it will have cash inflows of A\$900,000 from domestic operations, cash inflows of 700,000 Malaysian ringgit due to export to Malaysian operations, and cash outflows of 800,000 Malaysian ringgit 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: 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 US companies in the same industry and have the same valuation as of yesterday, based on the present value of future cash flows of each company. Odessa Co. obtains a large amount of its supplies invoiced in euros from European countries, and all of its sales are invoiced in US dollars. Midland Co. has a large subsidiary in Europe that does all of its business in euros and remits profits to the US parent every year. Roswell Co. has no international business. Assume that as of this morning an event occurred that you believe will cause a substantial depreciation of the euro against the US dollar over time. Assume that this event will not change the business operations of the companies mentioned in this question. Which company 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 Co. would be adversely affected by the euro's depreciation.

- 36. Impact of uncertainty on an MNC's valuation** Assume that Alpine Co. is an Australian company that has foreign direct investment in Malaysia as a result establishing a subsidiary there. Political conditions have changed in Malaysia, but the best guess by investors of the future cash flows per year for Alpine Co. has not changed. Yet, there is more uncertainty surrounding the best guess of Alpine's cash flows. In other words, the distribution of possible outcomes above and below the best

guess has expended. Would the 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 US company that has 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 US dollars. It expects that its dollar revenue from charging tuition will be stable over each of the next several years. Its 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 salaries in euros. It expects that its expenses denominated in euros will be stable over each of the next several years. If the euro appreciates against the US dollar over time, should this have a favourable effect, unfavourable effect, or no effect on the value of Rochester Co.? Briefly explain.

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

- b. Rochester Co. 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 them tuition fees in euros. The expenses for this project would be about the same as the expenses of the project described above for the American students. Also assume that euros to be generated by this project would be 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.

Solution to continuing case problem: Aussie Blades, Pty Ltd

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

ANSWER: The advantages Aussie Blades, Inc. could gain from importing from Thailand include potentially lowering Aussie 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 Aussie Blades' net income. Since numerous competitors of Aussie Blades are already importing components from Thailand, importing would increase Aussie Blades' competitiveness in the US, especially since its

prices are among the highest in the roller blade industry. Furthermore, since Aussie 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, Aussie Blades, Inc. could be one of the first companies to sell roller blades in Thailand. Considering that Aussie Blades is contemplating to eventually shift its sales to Thailand, this could be a major competitive advantage.

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

ANSWER: There are several potential disadvantages Aussie Blades, Inc. should consider. First of all, Aussie Blades would be exposed to currency fluctuations in the Thai baht. For example, the Australian 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, Aussie Blades' sales in Thailand would also increase in Australian dollar terms if the baht appreciates, even if Aussie Blades does not increase its prices. Aussie Blades, Inc. would also be exposed to the economic conditions in Thailand. For example, if there is a recession, Aussie Blades would suffer from decreased sales to Thailand.

In the long run, Aussie 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 Aussie 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 maximisation of shareholder wealth.

3. Which theories of international business described in this chapter apply to Aussie Blades, Inc. in the short run? Which apply 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, Aussie 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 Aussie 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 Aussie Blades in the long run. However, the product cycle theory also applies to Aussie Blades, since its Australian sales are declining and Aussie 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 the establishment of a subsidiary in Thailand are an option for Aussie Blades and may be more suitable for the company?

ANSWER: Since Ben Holt is very unfamiliar with international business, and since Aussie Blades has never operated outside Australia, establishment of a subsidiary in Thailand is probably not the best way for Aussie Blades, Inc. to gain a foothold in Thailand in the long run. Aussie Blades should initially consider a joint venture with Thai companies that manufacture roller blades. The advantage would be access to Thai distribution channels, familiarity of the Thai company with customs and

ethics in Thailand, and an established market. Of course, since Aussie 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.

5. If a subsidiary is established in Thailand and the Thai baht weakens over the next five years, will the value of Aussie Blades be favourably affected, unfavourably affected or not affected? Briefly explain.

ANSWER: It will be favourably affected since Aussie Blades needs fewer Australian dollars over time to cover its baht expenses for subsidiary in Thailand. However, Aussie Blades revenue will be significantly unfavourably affected by a depreciation of the baht as Aussie Blades has a plan to increase sales in Thailand and gradually shift its focus away from Australia if its Australian sales do not rebound.

Solution to supplemental case: Officeworks

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 China, whereas wider Asian markets may not have an organised system for the distribution of office supplies. Yet, some Asian companies (like the British competitor) may attempt to pursue the wider Asian market.
 2. Transportation costs. The costs of transporting office supplies to wider Asian market would be high, placing Officeworks at a relative disadvantage compared to other Asian companies.
 3. Export barriers. Either country could impose tariffs or quotas on the exports. China is less likely than wider Asian countries to impose such restrictions.
 4. Marketing characteristics. Officeworks would have an easier time adapting to the Chinese market. The information about wider Asian companies would be more limited. Thus, Officeworks would be unable to identify many of the companies 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 Japanese suppliers. Since Officeworks has no experience in Japan, it may be at a disadvantage in attempting to penetrate that market.
 5. Exchange rates. The future exchange rates of the Chinese yuan and currencies of wider Asian countries could be relevant. Even if Officeworks plans to invoice the exports in Australian dollars, the future exchange rates will influence the amount of foreign currency needed by the companies in China or wider Asian countries to purchase the supplies. Therefore, foreign demand for the supplies will be influenced by the exchange rates. The future wider Asian currency values are more uncertain. In fact, the governments may even prevent conversion of these currencies into Australian dollars.

Overall, most of the factors would favour China as the more reasonable market to pursue.

- b. Recall that the reason for Officeworks to expand overseas was to offset the anticipated Australia 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 Australia. Many employees would probably not be willing to relocate without substantial compensation. The company would now have two plants instead of one, which could prevent it from fully capitalising 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 company that conducts international business. The 'Small Business Dilemma' in each chapter allows students to recognise the dilemmas and possible decisions that companies (such as this sporting goods company) may face in a global environment. For this chapter, the application is on the development of the sporting goods company 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 Australia to other countries. If football becomes a popular idea in foreign countries, the Sports Exports Company will be the first company to benefit from the popularity. While other companies 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 Australian companies that produce the top-of-the-line footballs in Australian market in that it sells the footballs at a low price. Thus, if these companies 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 Australian Rules 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 Australian 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. The Sports Exports Company has no immediate plans to conduct foreign direct 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 company produce its Australian Rules footballs and sell them; this would avoid the cost of exporting, but would result in expenses charged by the foreign company. An alternative method would be a joint venture in which the Sports Exports Company produces and exports the Australian Rules footballs exclusively to a specific foreign company that focuses on distributing sporting goods to retail stores in various countries. That foreign company would charge a mark-up beyond the price that it is charged when purchasing the footballs.

6. How should Jim Logan choose foreign markets to avoid foreign currency exposure?

ANSWER: Logan should choose foreign markets with currency values are stronger than Australian dollar. The foreign distributors will buy footballs from Sports Exports Company at lower price due to their strong currency values against Australian dollar. It will lead to increase the demand of Australian Rules Footballs in the foreign countries. On the other hand, Sports Exports Company revenue will be favourably as Australian dollar is weaker than foreign currency.

International investing project

This project is provided in Appendix D, available online. It may be used as a project assignment that is to be completed by the end of the semester.

Discussion in the boardroom

This exercise is provided in Appendix E, available online. 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 (after 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.