

# International Financial Management

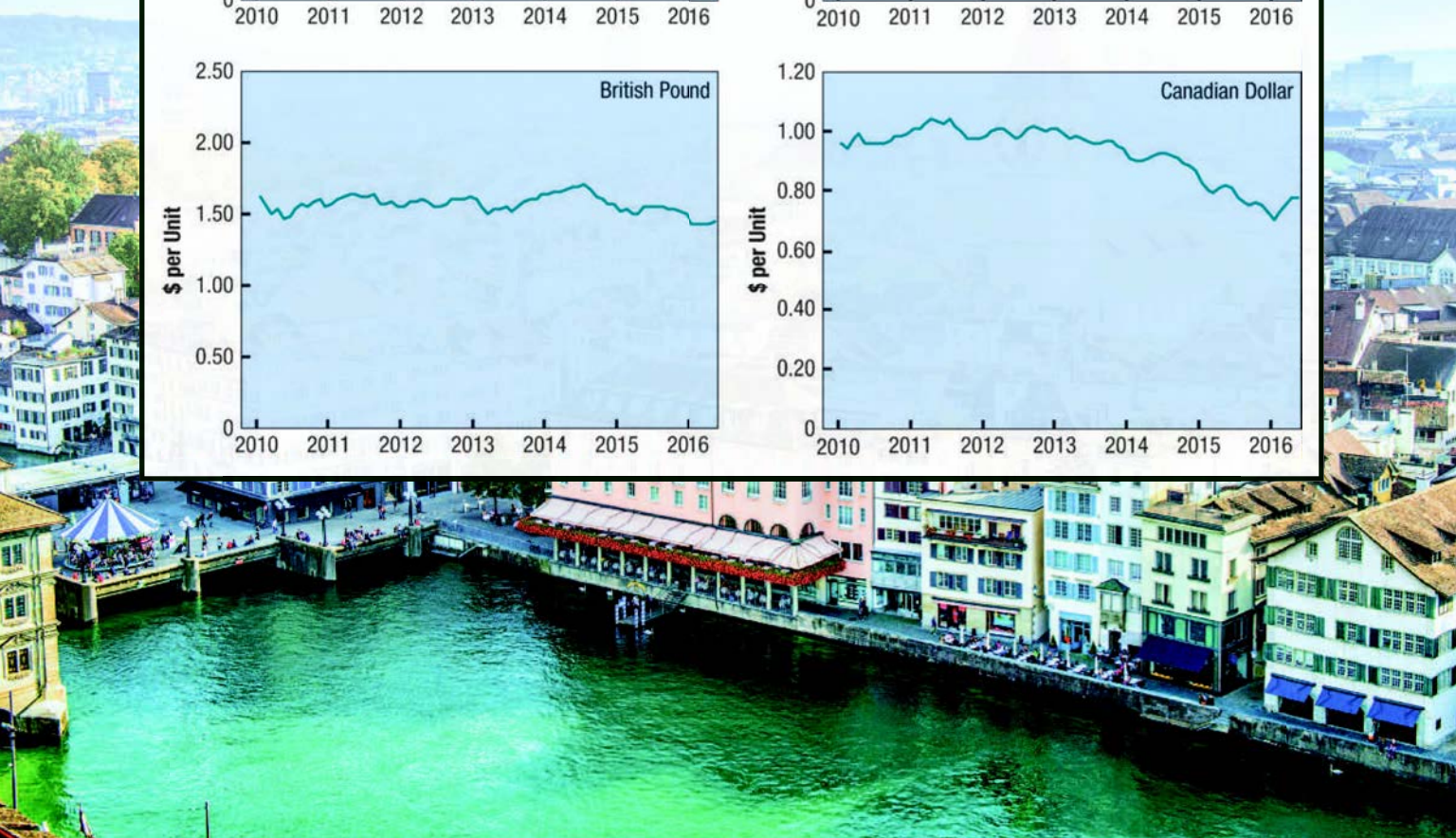
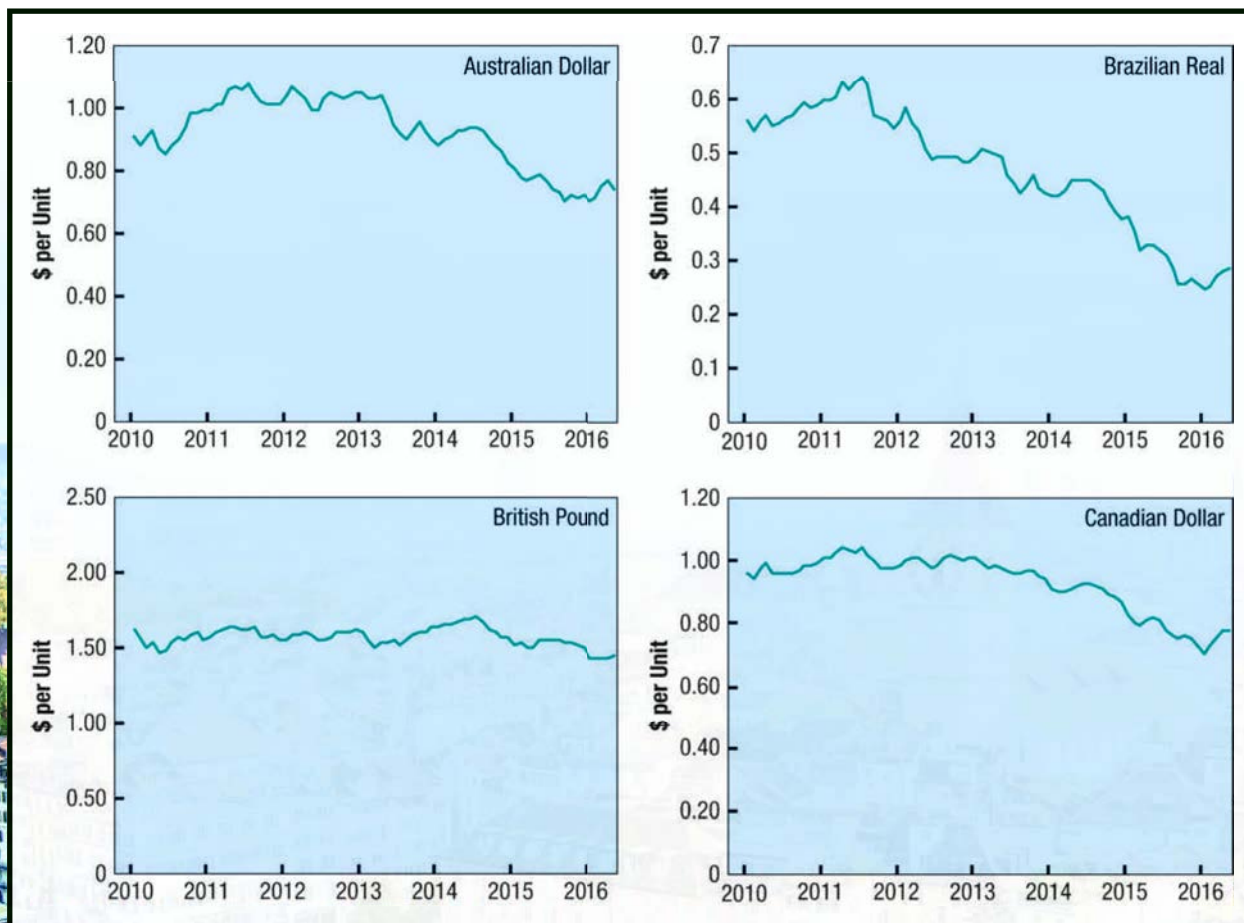


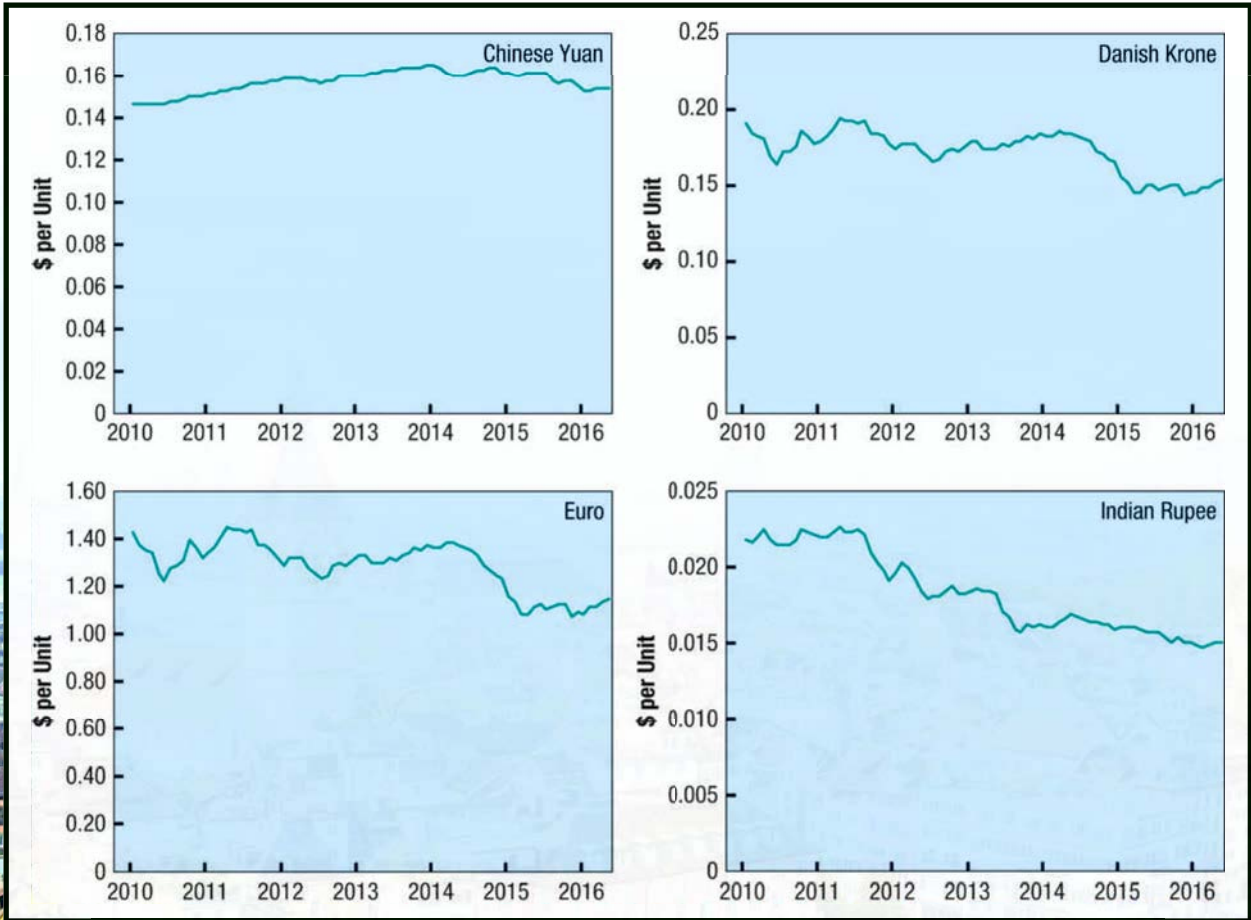
**Jeff Madura**

13th Edition

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# Direct Exchange Rates over Time





*Continued on Inside Back Cover*

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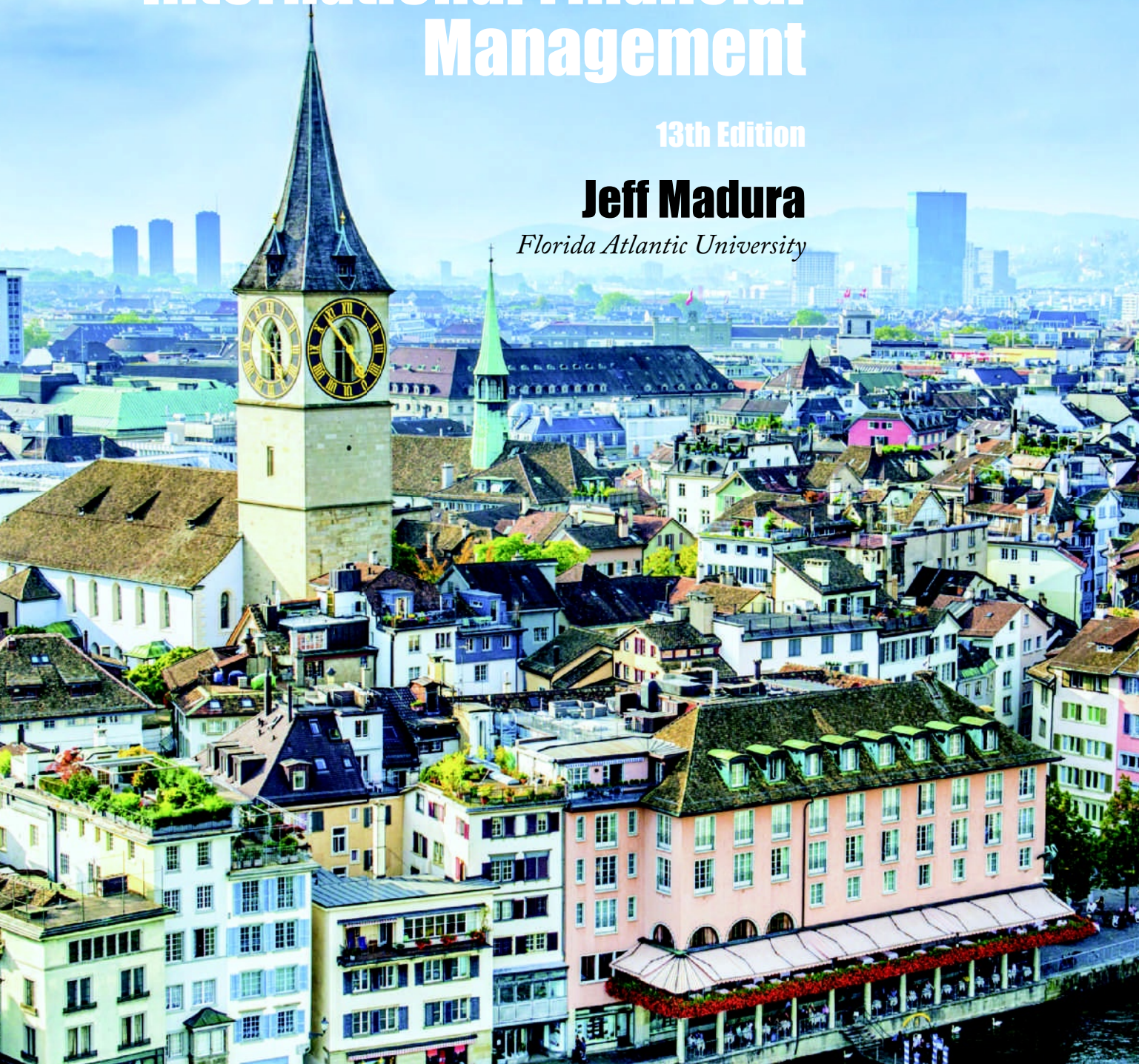


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13th Edition

**Jeff Madura**

*Florida Atlantic University*



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**International Financial Management,  
13th Edition****Jeff Madura**SVP, General Manager for Social Sciences,  
Humanities & Business: Erin Joyner

Executive Product Director: Mike Schenk

Sr. Product Team Manager: Joe Sabatino

Project Manager: Julie Dierig

Content Developer: Stacey Lotkoski, MPS

Product Assistant: Denisse A Zavala-Rosales

Marketing Manager: Nathan Anderson

Content Project Manager: Nadia Saloom

Media Developer: Mark Hopkinson

Manufacturing Planner: Kevin Kluck

Marketing Communications Manager:  
Sarah Greber

Marketing Coordinator: Hillary Johns

Production Service: Lumina Datamatics, Inc.

Sr. Art Director: Michele Kunkler

Internal and Cover Designer:

Tippy McIntosh

Cover Image: AleksandarGeorgiev/  
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Brittani Morgan

Project Manager: Nick Barrows

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*Dedicated to my mother Irene*



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# Preface

Businesses evolve into multinational corporations (MNCs) so that they can capitalize on international opportunities. Their financial managers must be able to assess the international environment, recognize opportunities, implement strategies, assess exposure to risk, and manage that risk. The MNCs most capable of responding to changes in the international financial environment will be rewarded. The same can be said for the students today who may become the future managers of MNCs.

## Intended Market

*International Financial Management*, 13th Edition, presumes an understanding of basic corporate finance. It is suitable for both undergraduate and master's level courses in international financial management. For master's courses, the more challenging questions, problems, and cases in each chapter are recommended, along with special projects.

## Organization of the Text

*International Financial Management*, 13th Edition, is organized to provide a background on the international environment and then to focus on the managerial aspects from a corporate perspective. Managers of MNCs will need to understand the environment before they can manage within it.

The first two parts of the text establish the necessary macroeconomic framework. Part 1 (Chapters 1 through 5) introduces the major markets that facilitate international business. Part 2 (Chapters 6 through 8) describes relationships between exchange rates and economic variables and explains the forces that influence these relationships.

The rest of the text develops a microeconomic framework with a focus on the managerial aspects of international financial management. Part 3 (Chapters 9 through 12) explains the measurement and management of exchange rate risk. Part 4 (Chapters 13 through 18) describes the management of long-term assets and liabilities, including motives for direct foreign investment, multinational capital budgeting, country risk analysis, and capital structure decisions. Part 5 (Chapters 19 through 21) concentrates on the MNC's management of short-term assets and liabilities, including trade financing, other short-term financing, and international cash management.

Each chapter is self-contained so that professors can use classroom time to focus on the more comprehensive topics while relying on the text to cover other concepts. The management of long-term assets (Chapters 13 through 16 on direct foreign investment, multinational capital budgeting, multinational restructuring, and country risk analysis) is covered before the management of long-term liabilities (Chapters 17 and 18 on capital structure and debt financing) because the financing decisions depend on the investment decisions. Nevertheless, these concepts are explained with an emphasis on how the management of long-term assets and long-term liabilities is integrated. For example, multinational capital budgeting analysis demonstrates how the feasibility of a foreign project may depend on the financing mix. Some professors may prefer to teach the chapters on managing long-term liabilities prior to teaching the chapters on managing long-term assets.

The strategic aspects, such as motives for direct foreign investment, are covered before the operational aspects, such as short-term financing or investment. For professors who prefer to cover the MNC's management of short-term assets and liabilities before the management of long-term assets and liabilities, the parts can be rearranged because they are self-contained.

Professors may limit their coverage of chapters in some sections where they believe the text concepts are covered by other courses or do not need additional attention beyond what is in the text. For example, they may give less attention to the chapters in Part 2 (Chapters 6 through 8) if their students take a course in international economics. If professors focus on the main principles, they may limit their coverage of Chapters 5, 15, 16, and 18. In addition, they may give less attention to Chapters 19 through 21 if they believe that the text description does not require elaboration.

## Approach of the Text

*International Financial Management*, 13th Edition, focuses on financial management decisions that maximize the value of multinational corporations. The text offers a variety of methods to reinforce key concepts so that instructors can select the methods and features that best fit their teaching styles.

- *Part-Opening Diagram.* A diagram is provided at the beginning of each part to illustrate how the key concepts covered in that part are related.
- *Objectives.* A bulleted list at the beginning of each chapter identifies the key concepts in that chapter.
- *Examples.* The key concepts are thoroughly described in the chapter and supported by examples.
- *Web Links.* Websites that offer useful related information regarding key concepts are provided in each chapter.
- *Summary.* A bulleted list at the end of each chapter summarizes the key concepts. This list corresponds to the list of objectives at the beginning of the chapter.
- *Point/Counter-Point.* A controversial issue is introduced, along with opposing arguments, and students are asked to determine which argument is correct and to explain why.
- *Self-Test Questions.* A “Self-Test” at the end of each chapter challenges students on the key concepts. The answers to these questions are provided in Appendix A.
- *Questions and Applications.* A substantial set of questions and other applications at the end of each chapter test the student's knowledge of the key concepts in the chapter.
- *Critical Thinking Question.* At the end of each chapter, a critical thinking question challenges the students to use their skills to write a short essay on a specific topic that was given attention in the chapter.
- *Continuing Case.* At the end of each chapter, the continuing case allows students to use the key concepts to solve problems experienced by a firm called Blades, Inc. (a producer of roller blades). By working on cases related to the same MNC over a school term, students recognize how an MNC's decisions are integrated.
- *Small Business Dilemma.* The Small Business Dilemma at the end of each chapter places students in a position where they must use concepts introduced in the chapter to make decisions about a small MNC called Sports Exports Company.
- *Internet/Excel Exercises.* At the end of each chapter are exercises that expose the students to applicable information available at various websites, enable the application of Excel to related topics, or provide a combination of these. *Integrative*



*Problem.* An integrative problem at the end of each part integrates the key concepts of chapters within that part.

- *Midterm and Final Examinations.* A midterm self-exam is provided at the end of Chapter 8, which focuses on international macro and market conditions (Chapters 1 through 8). A final self-exam is provided at the end of Chapter 21, which focuses on the managerial chapters (Chapters 9 through 21). Students can compare their answers to those in the answer key provided.
- *Supplemental Cases.* Supplemental cases allow students to apply chapter concepts to a specific situation of an MNC. All supplemental cases are located in Appendix B.
- *Running Your Own MNC.* This project allows each student to create a small international business and apply key concepts from each chapter to run the business throughout the school term. The project is available in the textbook companion site (see the “Online Resources” section).
- *International Investing Project.* This project (located in Appendix D) allows students to simulate investing in stocks of MNCs and foreign companies and requires them to assess how the values of these stocks change during the school term in response to international economic conditions. The project is also available on the textbook companion site (see the “Online Resources” section).
- *Discussion in the Boardroom.* Located in Appendix E, this project allows students to play the role of managers or board members of a small MNC that they created and to make decisions about that firm. This project is also available on the textbook companion site (see the “Online Resources” section).
- The variety of end-of-chapter and end-of-part exercises and cases offer many opportunities for students to engage in teamwork, decision making, and communication.

## Changes to this Edition

All chapters in the 13th edition have been updated to include recent developments in international financial markets, and in the tools used to manage a multinational corporation. In particular, the following chapters were revised substantially:

- Chapter 2 has been revised to reflect the balance-of-payments format that is consistent with the recent format used by the U.S. government for reporting the specific accounts.
- Chapter 3 has been revised to improve flow between sections, and to update the manipulation of exchange rates in the foreign exchange market.
- Chapter 6 now includes a section on black markets for currencies, and a section on the recent challenges of the European Central Bank (ECB) to stabilize financial conditions in the eurozone.
- Chapter 8 has been revised substantially to synthesize the relationships between the Fisher effect, purchasing power parity (PPP), and the international Fisher effect (IFE).
- Chapter 9 has been reorganized to improve the flow.
- Chapter 10 has been revised to improve flow between sections, and to direct attention to the value at risk method for assessing exchange rate exposure.
- Chapter 13 now includes a new case study example.
- Chapter 14 now includes more detailed information about how managers (and students) can use spreadsheets to facilitate the international capital budgeting process and apply sensitivity analysis.
- Chapter 18 has been revised to improve the flow between sections.

## Online Resources

The textbook companion site provides resources for both students and instructors.

**Students:** Access the following resources by going to [www.cengagebrain.com](http://www.cengagebrain.com) and searching **ISBN 9781337099738**: Running Your Own MNC, International Investing Project, Discussion in the Boardroom, Key Terms Flashcards, and chapter Web links.

**Instructors:** Access textbook resources by going to [www.cengage.com](http://www.cengage.com), logging in with your faculty account username and password, and using **ISBN 9781337099738** to search for instructor resources or to add instructor resources to your account.

## Instructor Supplements

The following supplements are available to instructors.

- *Instructor's Manual.* Revised by the author, the Instructor's Manual contains the chapter theme, topics to stimulate class discussion, and answers to end-of-chapter Questions, Case Problems, Continuing Cases (Blades, Inc.), Small Business Dilemmas, Integrative Problems, and Supplemental Cases.
- *Test Bank.* The expanded test bank, which has also been revised by the author, contains a large set of questions in multiple choice or true/false format, including content questions as well as problems.
- *Cognero™ Test Bank.* Cengage Learning Testing Powered by Cognero™ is a flexible online system that allows you to: author, edit, and manage test bank content from multiple Cengage Learning solutions; create multiple test versions in an instant; deliver tests from your LMS, your classroom, or wherever you want. The Cognero™ Test Bank contains the same questions that are in the Microsoft® Word Test Bank. All question content is now tagged according to Tier I (Business Program Interdisciplinary Learning Outcomes) and Tier II (Finance-specific) standards topic, Bloom's Taxonomy, and difficulty level.
- *PowerPoint Slides.* The PowerPoint Slides provide a solid guide for organizing lectures. In addition to the regular notes slides, a separate set of exhibit-only PPTs are also available.

## Additional Course Tools

### Cengage Learning Custom Solutions

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*Jeff Madura*  
Florida Atlantic University

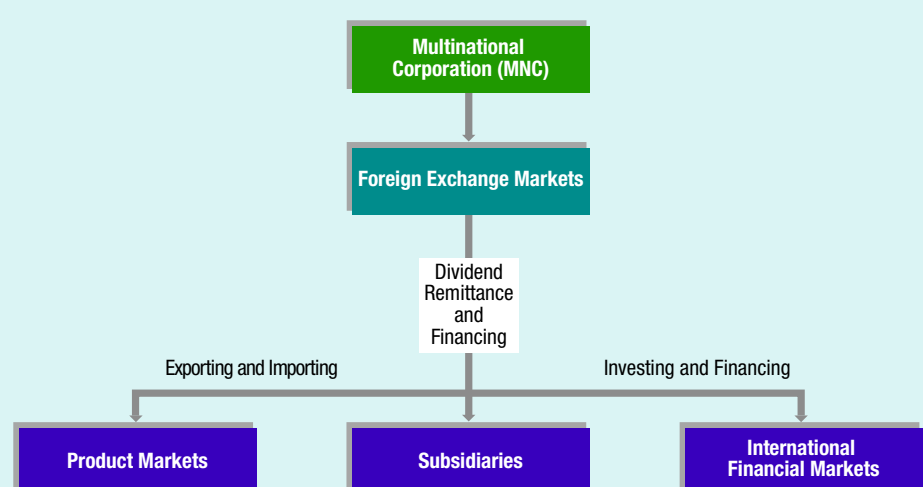
# About the Author

**Dr. Jeff Madura** is presently Emeritus Professor of Finance at Florida Atlantic University. He has written several successful finance texts, including *Financial Markets and Institutions* (in its 12th edition). His research on international finance has been published in numerous journals, including *Journal of Financial and Quantitative Analysis*; *Journal of Banking and Finance*; *Journal of Money, Credit and Banking*; *Journal of International Money and Finance*; *Financial Management*; *Journal of Financial Research*; *Financial Review*; *Journal of International Financial Markets, Institutions, and Money*; *Global Finance Journal*; *International Review of Financial Analysis*; and *Journal of Multinational Financial Management*. Dr. Madura has received multiple awards for excellence in teaching and research, and he has served as a consultant for international banks, securities firms, and other multinational corporations. He served as a director for the Southern Finance Association and the Eastern Finance Association, and he is also former president of the Southern Finance Association.

# PART 1

## The International Financial Environment

Part 1 (Chapters 1 through 5) provides an overview of the multinational corporation (MNC) and the environment in which it operates. Chapter 1 explains the goals of the MNC, along with the motives and risks of international business. Chapter 2 describes the international flow of funds between countries. Chapter 3 describes the international financial markets and how these markets facilitate ongoing operations. Chapter 4 explains how exchange rates are determined, and Chapter 5 provides background on the currency futures and options markets. Managers of MNCs must understand the international environment described in these chapters in order to make proper decisions.







# 1

# Multinational Financial Management: An Overview

## CHAPTER OBJECTIVES

The specific objectives of this chapter are to:

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

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

Initially, firms may merely attempt to export products to a certain country or import supplies from a foreign manufacturer. Over time, however, many of these firms recognize additional foreign opportunities and eventually establish subsidiaries in foreign countries. Dow Chemical, IBM, Nike, and many other firms have more than half of their assets in foreign countries. Some businesses, such as ExxonMobil, Fortune Brands, and Colgate-Palmolive, commonly generate more than half of their sales in foreign countries. It is typical also for smaller U.S. firms to generate more than 20 percent of their sales in foreign markets; examples include Ferro (Ohio) and Medtronic (Minnesota). Many technology firms, such as Apple, Facebook, and Twitter, expand overseas in order to capitalize on their technology advantages. Many smaller private U.S. firms such as Republic of Tea (California) and Magic Seasoning Blends (Louisiana) generate a substantial percentage of their sales in foreign markets. Seventy-five percent of U.S. firms that export have fewer than 100 employees.

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

This chapter provides background on the goals, motives, and valuation of a multinational corporation.

## 1-1 Managing the MNC

The commonly accepted goal of an MNC is to maximize shareholder wealth. Managers employed by the MNC are expected to make decisions that will maximize the stock price and thereby serve the shareholders' interests. Some publicly traded MNCs based outside the United States may have additional goals, such as satisfying their respective governments, creditors, or employees. However, these MNCs now place greater emphasis on satisfying shareholders; that way, the firm can more easily obtain funds from them to support its operations. Even in developing countries (e.g., Bulgaria and Vietnam) that have just recently encouraged the development of business enterprise, managers of firms must serve shareholder interests in order to secure their funding. There would be little demand for the stock of a firm that announced the proceeds would be used to overpay managers or invest in unprofitable projects.

The focus of this text is on MNCs whose parents wholly own any foreign subsidiaries, which means that the U.S. parent is the sole owner of the subsidiaries. This is the most common form of ownership of U.S.-based MNCs, and it gives financial managers throughout the firm the single goal of maximizing the entire MNC's value (rather than the value of any particular subsidiary). The concepts in this text apply generally also to MNCs based in countries other than the United States.

### 1-1a How Business Disciplines Are Used to Manage the MNC

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

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

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

### 1-1b Agency Problems

Managers of an MNC may make decisions that conflict with the firm's goal of maximizing shareholder wealth. For example, a decision to establish a subsidiary in one location versus another may be based on the location's appeal to a particular manager rather than on its potential benefits to shareholders. A decision to expand a subsidiary may be

motivated by a manager's desire to receive more compensation rather than to enhance the value of the MNC. This conflict of goals between a firm's managers and shareholders is often referred to as the **agency problem**.

The costs of ensuring that managers maximize shareholder wealth (referred to as *agency costs*) are normally larger for MNCs than for purely domestic firms for several reasons. First, MNCs with subsidiaries scattered around the world may experience larger agency problems because monitoring the managers of distant subsidiaries in foreign countries is more difficult. Second, foreign subsidiary managers who are raised in different cultures may not follow uniform goals. Some of them may believe that the first priority should be to serve their respective employees. Third, the sheer size of the larger MNCs can also create significant agency problems, because it complicates the monitoring of managers.

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#### EXAMPLE

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

Lack of monitoring can lead to substantial losses for MNCs. The large New York-based bank JPMorgan Chase & Co. lost at least \$6.2 billion and had to pay more than \$1 billion in fines and penalties after a trader in its office in London, England, made extremely risky trades. The subsequent investigation revealed that the bank had maintained poor internal control and failed to provide proper oversight of its employees.

**Parent Control of Agency Problems** The parent corporation of an MNC may be able to prevent most agency problems with proper governance. The parent should clearly communicate the goals for each subsidiary to ensure that all of them focus on maximizing the value of the MNC and not of their respective subsidiaries. The parent can oversee subsidiary decisions to check whether each subsidiary's managers are satisfying the MNC's goals. The parent also can implement compensation plans that reward those managers who satisfy the MNC's goals. A common incentive is to provide managers with the MNC's stock (or options to buy that stock at a fixed price) as part of their compensation; thus the subsidiary managers benefit directly from a higher stock price when they make decisions that enhance the MNC's value.

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#### EXAMPLE

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

**Corporate Control of Agency Problems** In some cases, agency problems can occur because the goals of the entire management of the MNC are not focused on maximizing shareholder wealth. Various forms of corporate control can help prevent these agency problems and thus induce managers to make decisions that satisfy the MNC's shareholders. If these managers make poor decisions that reduce the MNC's value, then another firm might acquire it at the lower price and hence would probably remove the weak managers. Moreover, institutional investors (e.g., mutual and pension funds) with large holdings of an MNC's stock have some influence over management because they will complain to the board of directors if managers are making poor decisions.

Institutional investors may seek to enact changes, including removal of high-level managers or even board members, in a poorly performing MNC. Such investors may also band together to demand changes in an MNC, as they know that the firm would not want to lose all of its major shareholders.

**How SOX Improved Corporate Governance of MNCs** One limitation of the corporate control process is that investors rely on reports by the firm's own managers for information. If managers are serving themselves rather than the investors, they may exaggerate their performance. There are many well-known examples (such as Enron and WorldCom) in which large MNCs were able to alter their financial reporting and hide problems from investors.

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

- establishing a centralized database of information,
- ensuring that all data are reported consistently among subsidiaries,
- implementing a system that automatically checks data for unusual discrepancies relative to norms,
- speeding the process by which all departments and subsidiaries access needed data, and
- making executives more accountable for financial statements by personally verifying their accuracy.

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

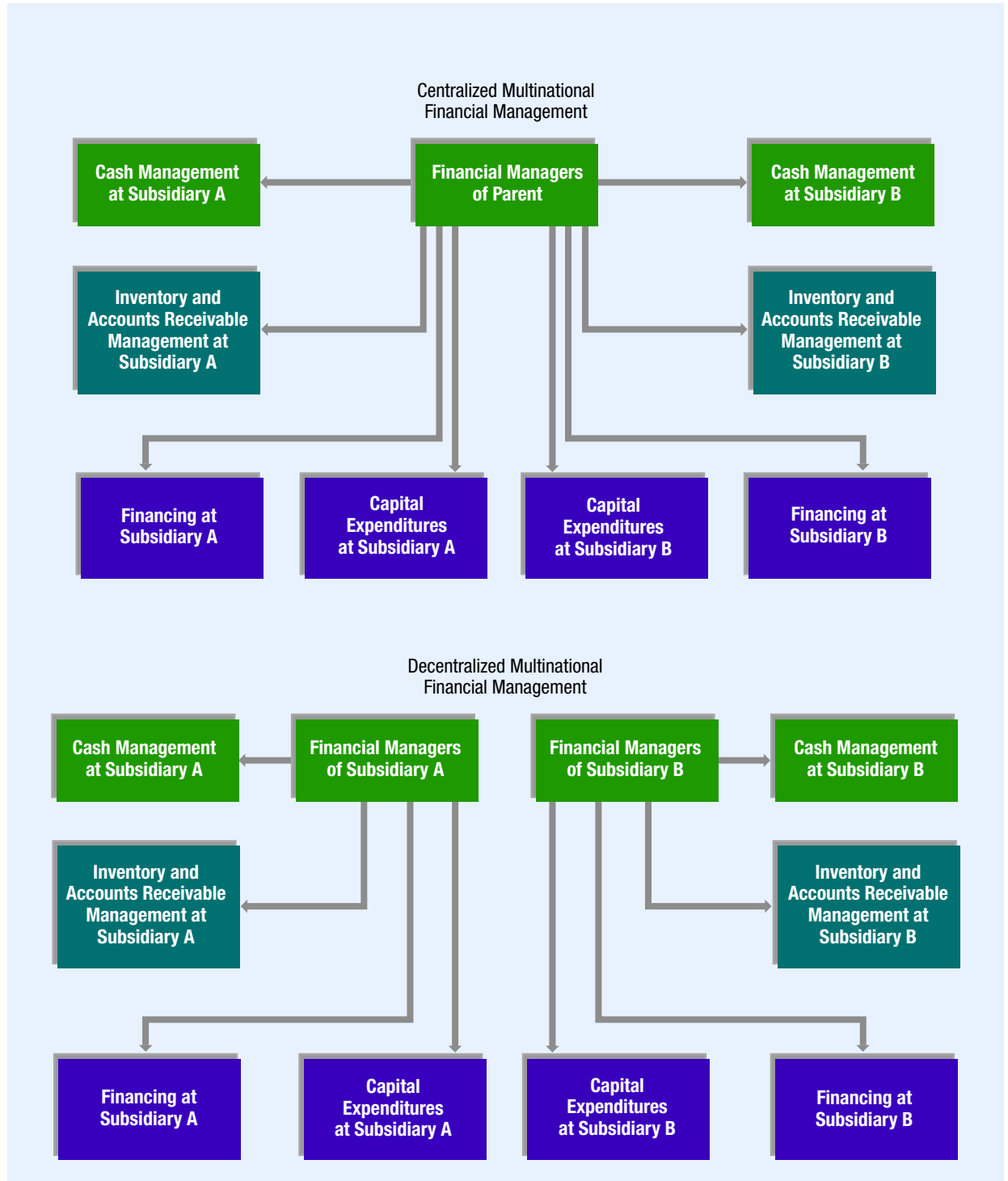
### 1-1c Management Structure of an MNC

The magnitude of agency costs can vary with the MNC's management style. A centralized management style, as illustrated in the top section of Exhibit 1.1, can reduce agency costs because it allows managers of the parent to control foreign subsidiaries and thus reduces the power of subsidiary managers. However, the parent's managers may make poor decisions for the subsidiary if they are less informed than the subsidiary's managers about its setting and financial characteristics.

Alternatively, an MNC can use a decentralized management style, as illustrated in the bottom section of Exhibit 1.1. This style is more likely to result in higher agency costs because subsidiary managers may make decisions that fail to maximize the value of the entire MNC. Yet this management style gives more control to those managers who are closer to the subsidiary's operations and environment. To the extent that subsidiary managers recognize the goal of maximizing the value of the overall MNC and are compensated in accordance with that goal, the decentralized management style may be more effective.

Given the clear trade-offs between centralized and decentralized management styles, some MNCs attempt to achieve the advantages of both. That is, they allow subsidiary managers to make the key decisions about their respective operations while the parent's management monitors those decisions to ensure they are in the MNC's best interests.

**Exhibit 1.1** Management Styles of MNCs



***How the Internet Facilitates Management Control*** The Internet simplifies the process for the parent to monitor the actions and performance of its foreign subsidiaries.

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**EXAMPLE**

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

## 1-2 Why MNCs Pursue International Business

Multinational business has generally increased over time. Three commonly held theories to explain why MNCs are motivated to expand their business internationally are the (1) theory of comparative advantage, (2) imperfect markets theory, and (3) product cycle theory. These theories overlap to some extent and can complement each other in developing a rationale for the evolution of international business.

### 1-2a Theory of Comparative Advantage

Specialization by countries can increase production efficiency. Some countries, such as Japan and the United States, have a technology advantage, whereas others, such as China and Malaysia, have an advantage in the cost of basic labor. Because these advantages cannot easily be transported, countries tend to use their advantages to specialize in the production of goods that can be produced with relative efficiency. This explains why countries such as Japan and the United States are large producers of electronic products while countries such as Jamaica and Mexico are large producers of agricultural and handmade goods. Multinational corporations such as Oracle, Intel, and IBM have grown substantially in foreign countries because of their technology advantage.

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

### 1-2b Imperfect Markets Theory

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

## 1-2c Product Cycle Theory

One of the more popular explanations as to why firms evolve into MNCs is the **product cycle theory**. According to this theory, firms become established in the home market as a result of some perceived advantage over existing competitors, such as a need by the market for at least one more supplier of the product. Because information about markets and competition is more readily available at home, a firm is likely to establish itself first in its home country. Foreign demand for the firm's product will initially be accommodated by exporting. As time passes, the firm may feel the only way to retain its advantage over competition in foreign countries is to produce the product in foreign markets, thereby reducing its transportation costs. The competition in those foreign markets may increase as other producers become more familiar with the firm's product. The firm may develop strategies to prolong the foreign demand for its product. One frequently used approach is to differentiate the product so that competitors cannot duplicate it exactly. These phases of the product cycle are illustrated in Exhibit 1.2. For instance, 3M Co. uses one new product to enter a foreign market, after which it expands the product line there.

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

**Exhibit 1.2** International Product Life Cycle

