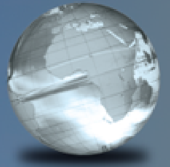

GLOBAL EDITION

Multinational Business Finance

FIFTEENTH EDITION

David K. Eiteman • Arthur I. Stonehill • Michael H. Moffett

Multinational Business Finance

FIFTEENTH EDITION

GLOBAL EDITION

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Preface

New to This Edition

Our continuing challenge is to strike a balance between being one of the very first textbooks in this field (and therefore in many ways defining the field) and introducing the many new concepts and components in global business today, from crowdfunding to blockchain. We therefore have hopefully found some balance between what is valued by continuing adopters and the valued insights of selected reviewers—the *innovator's dilemma*. Surveys of adopters were extremely useful in this revision, and a number of specific developments were included.

- **The Impossible Trinity.** A core international financial principle, the *Impossible Trinity's* use as a unifying theoretical link across multiple subjects and chapters has been expanded.
- **The Foreign Exchange Market and Digital Trade.** New material in this edition explores in depth how the changing structure of the global foreign exchange market—trading, communication, and settlement—is posing challenges for private players and public regulators and overseers.
- **Translation Exposure Expansion.** Translation exposure, a cross-section of international finance, economics, and accounting, has been renewed and expanded to more effectively cover its wider theoretical and practical applications in industry.
- **Financing of Foreign Subsidiaries.** Always a topic unique to the field of multinational finance, our discussion of subsidiary funding sources and practices has been expanded to include recent developments and changing access to capital.
- **International Taxation.** The seismic changes introduced by the United States effective on January 1, 2018, have been highlighted in exploration of how taxation alters the fundamental financial management activities of global companies from Apple to Caterpillar.
- **Political Risk and Financial Losses.** The chapter on foreign direct investment and political risk has been revised to reflect the growing use of restrictions on convertibility, transferability, and the possibility of repudiation or expropriation.
- **New and Edgier Mini-Cases.** Eight of the 18 mini-cases are completely new to the fifteenth edition, and explore many of the edgier debates rising between global business, social policy, and corporate social responsibility. Topics include Argentine debt and vulture investors, Apple's global tax structure, Brexit and its potential impact on Rolls-Royce, Volkswagen's governance structure and its defeat device strategy, and political risk in Kazakhstan's oil and gas industry, to name a few.
- **Expanded Quantitative Applications.** We have worked diligently to increase the quantitative elements across subjects and chapters to push students to explore the depth of analysis and comprehension. *Multinational Business Finance*, Fifteenth Edition includes more than **250 end-of-chapter problems**, all solved within Excel. We have also continued to present problems that are based on real-world applications and challenges, something we believe in very strongly.

Solving Teaching and Learning Challenges

Multinational Business Finance is the financial management of multinational enterprises (MNEs)—*multinational financial management*. MNEs are firms and organizations of all kinds and sizes—for-profit companies, family-owned businesses, sovereign states, and NGOs, among others—that have operations in more than one country and conduct their activities through a multitude of structures and contracts from wholly owned foreign subsidiaries to joint ventures with local or global partners to host governments.

Moreover, global business and finance, all the way down to the trading of currencies, has been revolutionized by digital platforms from electronic trading to blockchain contracts in complex international trade transactions.

Multinational Business Finance, Fifteenth Edition, is aimed at university level courses in international financial management, international business finance, international finance, and similar titles. It can be used at either the graduate level or in executive education and corporate learning courses.

A prerequisite course or experience in corporate finance or financial management would be ideal. However, we review the basic finance concepts before we extend them to the multinational case. We also review the basic concepts of international economics and international business.

Over many years and many editions, as we ourselves have used the book in courses from Hyderabad to Helsinki to Honolulu, we have observed an ever-widening audience for this book.

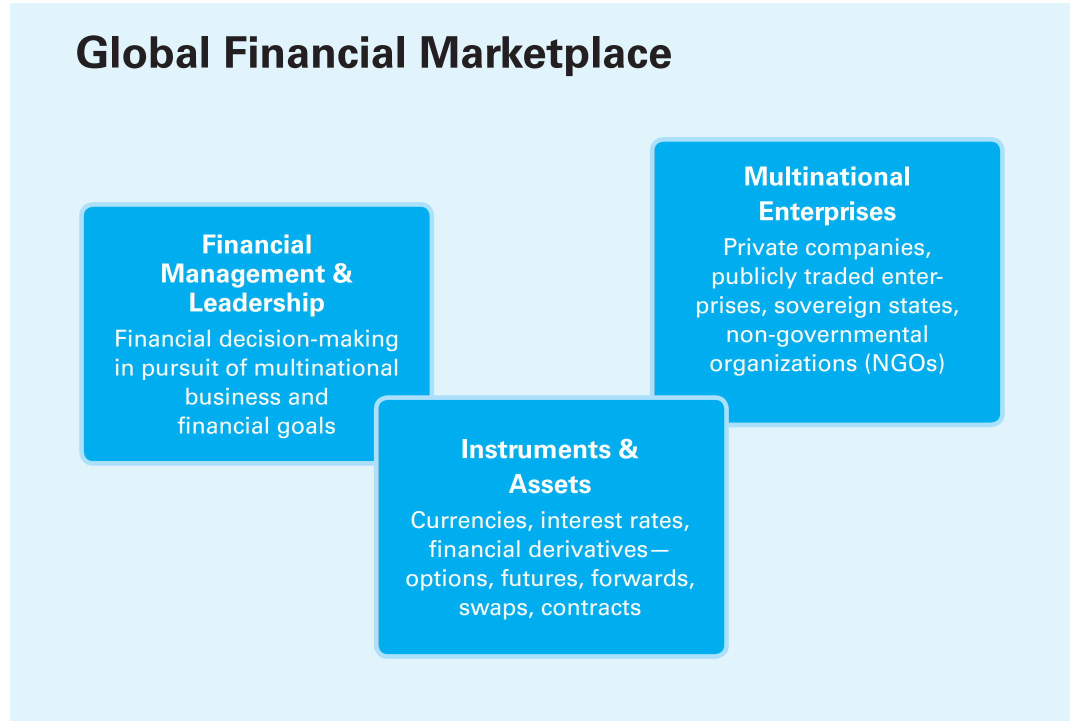
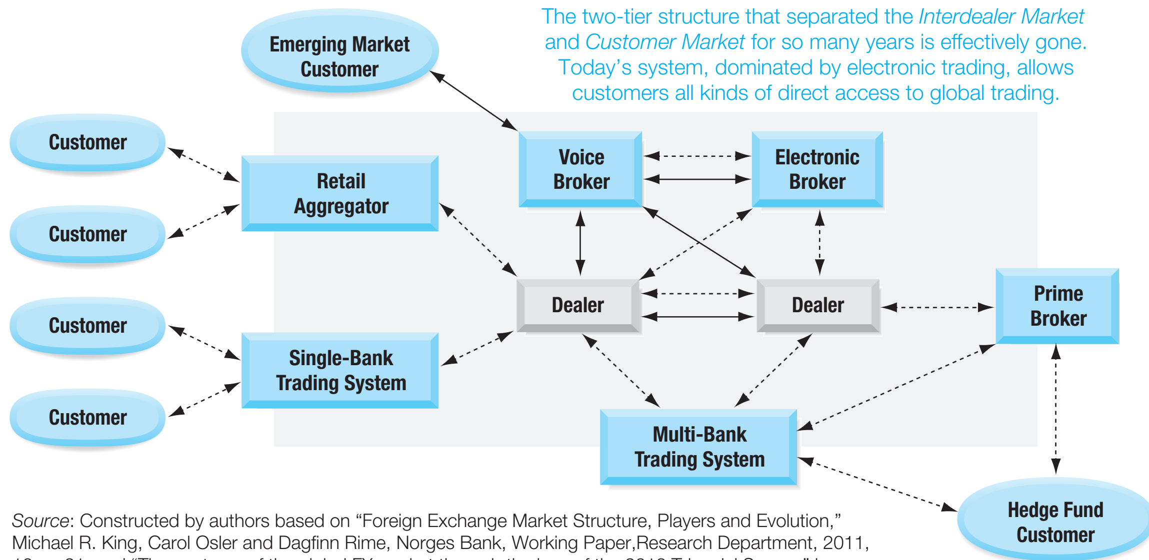


EXHIBIT 5.4 The Foreign Exchange Market Today



Source: Constructed by authors based on "Foreign Exchange Market Structure, Players and Evolution," Michael R. King, Carol Osler and Dagfinn Rime, Norges Bank, Working Paper,Research Department, 2011, 10, p. 21, and "The anatomy of the global FX market through the lens of the 2013 Triennial Survey," by Dagfinn Rime and Andreas Schrimpf, *BISQuarterly Review*, December 2013.

We continue to try and service this greater global audience with multi-country companies, markets, and challenges, whether in theoretical applications, practice boxes, mini-cases, or end-of-chapter problems.

Organization

Multinational Business Finance has been redesigned and restructured for tightness—critical elements of the field but in a much shorter delivery framework. This has been accomplished by integrating a number of previous topics along financial management threads. The book is in five parts, the parts unified by the common thread of the globalization process by which a firm moves from a domestic to a multinational business orientation.

- Part 1 introduces the global financial environment
- Part 2 explains foreign exchange theory and markets
- Part 3 explores foreign exchange rate exposure
- Part 4 details the financing of the global firm
- Part 5 analyzes international investment decisions

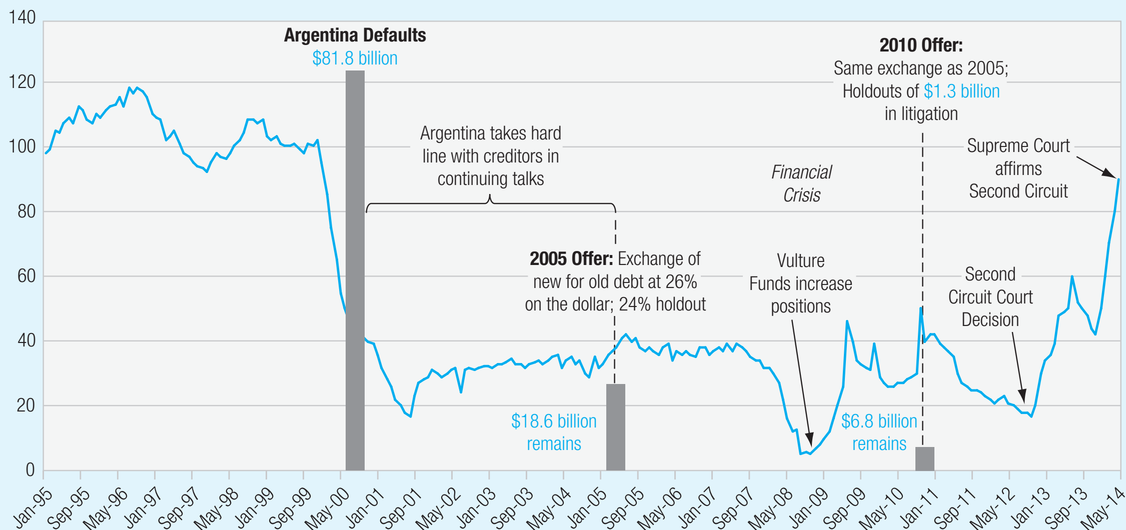
Pedagogical Tools

To make the book as comprehensible as possible, we use a large number of proven pedagogical tools. Again, our efforts have been informed by the detailed reviews and suggestions of

a panel of professors who are recognized individually for excellence in the field of international finance, particularly at the undergraduate level. Among these pedagogical tools are the following:

- A student-friendly writing style combined with a structured presentation of material, beginning with *learning objectives* for each chapter, and ending with a summarization of how those learning objectives were realized.
- A wealth of *illustrations and exhibits* to provide a visual parallel to the concepts and content presented.
- A running case on a hypothetical Ireland-based firm, *Aidan Corporation*, provides a cohesive framework for the multifaceted globalization process, and is reinforced in several end-of-chapter problems.
- A *mini-case* at the end of each chapter illustrates the chapter content and extends it to the multinational financial business environment.

EXHIBIT A Argentine Sovereign Bond Price and Default (Due Nov. 2002/Defaulted)



New mini-cases in this edition include, among others, the following:

- Globalization—or not—of the Chinese renminbi
- Volkswagen's corporate governance and its diesel defeat device
- Rolls-Royce's currency challenges with Brexit
- Electrolux of Sweden's newly restructured global currency management program
- Ferrari's IPO and acceptance of slow revenue and cash flow growth
- Tengiz—understanding political risk in one of the largest oil and gas investments in the world

- *Global Finance in Practice* boxes in every chapter highlight how real firms and real managers deal with the never-ending complexity of executing global business deals in a changing marketplace, from the mundane accounts payable to the exceptional expropriation. These applications extend the concepts without adding to the length of the text itself.

GLOBAL FINANCE IN PRACTICE 13.1

Decline in FDI in Europe and the Cost of Capital

In a 2019 survey of global businesses in Europe, Ernst & Young (EY) found a seven-year low in FDI levels in 2019. Brexit, the rise of populist and separatist movements in the European Union (EU), global political uncertainty, and trade wars were identified as the most serious risk factors to FDI in Europe.

Since voting to withdraw from the European Union (EU) in 2017, Britain has been struggling with outlining a Brexit arrangement with the EU. Around 100 firms have already moved from the United Kingdom to the Netherlands, and another 300 firms are considering relocating to other European centers, including France, Germany, Ireland, and Luxembourg. The survey estimates the overall bill of Brexit to reach £1 trillion and 7,000 jobs, out of which 1,000 jobs have already been moved out of the United Kingdom. The financial services sector has been the most heavily impacted. Almost 37% of global currency dealings take place in the City of London. Its financial services sector accounts for 11% of tax revenue in the United Kingdom and generates nearly 700,000 jobs. Financial institutions have already spent around £3.9 billion: £1.3 billion in relocation costs, legal services and contingency provisions, and £2.6 billion in capital injections.[1]

From the perspective of regulation, Brexit has been particularly bad news to the financial sector for various reasons. One, the EU financial passporting system authorizes banks in the EU to trade freely and provide core services in the region, making it the foundation of the EU single market for financial services. Each financial passport is embedded into the national law of the member state. Since these passports are not available for jurisdictions outside the EU, once Britain exits the EU, British banks will be become third-party banks and would face considerable regulatory barriers to providing financial services to their EU customers. At the same time, these banks could lose the EU equivalence determinations, which means that European banks operating in the United Kingdom would also end up facing dual regulatory environments. In anticipation of increased supervision costs, the European Central Bank (ECB) has already raised the fees it charges banks by 21%.

[1]Ernst & Young (2019). "How Can Europe Raise its Game? EY Attractiveness Survey – Europe 2019," E&Y, June. https://www.ey.com/Publication/vwLUAssets/ey-europe-attractiveness-survey-2019/$File/ey-europe-attractivenesssurvey-2019.pdf

- Every chapter has a number of end-of-chapter exercises requiring the use of the Internet, while a variety of Internet references are dispersed throughout the chapters in text and exhibits.
- A multitude of end-of-chapter questions and problems, which assess the students' understanding of the course material. All end-of-chapter problems are solved using spreadsheet solutions. Selected end-of-chapter problem answers are included at the back of this book.
- Numerous mathematical derivations, such as parity conditions, foreign currency option pricing, and complex option products, are placed in appendices. This allows selective use as the student or faculty member feels appropriate.

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Test Bank authored by Rodrigo Hernandez from Radford University	1,200 multiple-choice, true/false, short-answer, and short-essay questions with these annotations: ■ Difficulty level (1 for straight recall, 2 for some analysis, 3 for complex analysis) ■ Topic ■ Learning outcome ■ Category (Recognition, conceptual, analytical) ■ AACSB learning standard (Written and Oral Communication; Ethical Understanding and Reasoning; Analytical Thinking; Information Technology; Interpersonal Relations and Teamwork; Diverse and Multicultural Work; Reflective Thinking; Application of Knowledge)

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PowerPoints authored by Sonya Lutter from Kansas State University	Slides include all the graphs, tables, and equations in the textbook. Two set of the slides are available—for chapters and for mini-cases. PowerPoints meet accessibility standards for students with disabilities. Features include, but are not limited to: ■ Keyboard and Screen Reader access ■ Alternative text for images ■ High color contrast between background and foreground colors

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Brief Contents

PART 1 Global Financial Environment 21

Chapter 1 Multinational Financial Management: Opportunities and Challenges 22
Chapter 2 The International Monetary System 49
Chapter 3 The Balance of Payments 77
Chapter 4 Financial Goals and Corporate Governance 109

PART 2 Foreign Exchange Theory and Markets 139

Chapter 5 The Foreign Exchange Market 140
Chapter 6 International Parity Conditions 171
Chapter 7 Foreign Currency Derivatives: Futures and Options 206
Chapter 8 Interest Rate Risk and Swaps 235
Chapter 9 Foreign Exchange Rate Determination and Intervention 268

PART 3 Foreign Exchange Exposure 301

Chapter 10 Transaction Exposure 302
Chapter 11 Translation Exposure 344
Chapter 12 Operating Exposure 370

PART 4 Financing the Global Firm 399

Chapter 13 Global Cost and Availability of Capital 400
Chapter 14 Funding the Multinational Firm 437
Chapter 15 Multinational Tax Management 471
Chapter 16 International Trade Finance 505

PART 5 Foreign Investments and Investment Analysis 531

Chapter 17 Foreign Direct Investment and Political Risk 532
Chapter 18 Multinational Capital Budgeting and Cross-Border Acquisitions 558

Answers to Selected End-of-Chapter Problems 592
Glossary 596
Index 614

Contents

PART 1 Global Financial Environment 21

Chapter 1 **Multinational Financial Management: Opportunities and Challenges 22**

1.1 The Global Financial Marketplace 23
1.2 The Theory of Comparative Advantage 31
1.3 What Is Different about International Financial Management? 32
1.4 The Globalization Process 35
Summary Points 40
Mini-Case Crowdfunding Kenya 40
Questions ■ Problems ■ Internet Exercises 43

Chapter 2 **The International Monetary System 49**

2.1 History of the International Monetary System 50
2.2 Fixed Versus Flexible Exchange Rates 59
2.3 The Impossible Trinity 59
2.4 A Single Currency for Europe: The Euro 61
2.5 Emerging Markets and Regime Choices 64
Summary Points 69
Mini-Case The Internationalization (or Not) of the Chinese Renminbi 69
Questions ■ Problems ■ Internet Exercises 72

Chapter 3 **The Balance of Payments 77**

3.1 Fundamentals of BOP Accounting 78
3.2 The Accounts of the Balance of Payments 80
3.3 BOP Impacts on Key Macroeconomic Rates 88
3.4 Trade Balances and Exchange Rates 90
3.5 Capital Mobility 93
Summary Points 99
Mini-Case Global Remittances 99
Questions ■ Problems ■ Internet Exercises 104

Chapter 4 **Financial Goals and Corporate Governance 109**

4.1 Business Ownership 110
4.2 Publicly Traded Versus Privately Held: The Global Shift 118

4.3 Corporate Governance 121
Summary Points 129
Mini-Case Volkswagen's Defeat Devices and Stakeholder Control 130
Questions ■ Problems ■ Internet Exercises 134

PART 2 Foreign Exchange Theory and Markets 139

Chapter 5 **The Foreign Exchange Market 140**

5.1 Functions of the Foreign Exchange Market 140
5.2 Structure of the Foreign Exchange Market 141
5.3 Transactions in the Foreign Exchange Market 149
5.4 Foreign Exchange Rates and Quotations 155
Summary Points 162
Mini-Case The Venezuelan Bolivar Black Market 163
Questions ■ Problems ■ Internet Exercises 166

Chapter 6 **International Parity Conditions 171**

6.1 Prices and Exchange Rates 172
6.2 Interest Rates and Exchange Rates 179
6.3 Forward Rate as an Unbiased Predictor of the Future Spot Rate 189
6.4 Prices, Interest Rates, and Exchange Rates in Equilibrium 190
Summary Points 192
Mini-Case Mrs. Watanabe and the Japanese Yen Carry Trade 192
Questions ■ Problems ■ Internet Exercises 195
Appendix: An Algebraic Primer to International Parity Conditions 202

Chapter 7 **Foreign Currency Derivatives: Futures and Options 206**

7.1 Foreign Currency Futures 207
7.2 Foreign Currency Options 209
7.3 Option Pricing and Valuation 217
7.4 Currency Option Pricing Sensitivity 218
Summary Points 225
Mini-Case KiKos and the South Korean Won 225
Questions ■ Problems ■ Internet Exercises 228
Appendix: Currency Option Pricing Theory 233

Chapter 8 **Interest Rate Risk and Swaps 235**

8.1 Interest Rate Foundations 236
8.2 The Cost of Debt 239
8.3 Interest Rate Risk 244
8.4 Interest Rate Futures and FRAs 247
8.5 Interest Rate Swaps 248
Summary Points 257
Mini-Case Argentina and the Vulture Funds 257
Questions ■ Problems ■ Internet Exercises 262

Chapter 9 **Foreign Exchange Rate Determination and Intervention 268**

9.1 Exchange Rate Determination: The Theoretical Thread 269
9.2 Currency Market Intervention 273
9.3 Disequilibrium: Exchange Rates in Emerging Markets 279
9.4 Currency Forecasting in Practice 284
Summary Points 289
Mini-Case Iceland—A Small Country in a Global Crisis 289
Questions ■ Problems ■ Internet Exercises 294

PART 3 Foreign Exchange Exposure 301

Chapter 10 **Transaction Exposure 302**

10.1 Types of Foreign Exchange Exposure 302
10.2 Why Hedge? 304
10.3 Transaction Exposure 306
10.4 Transaction Exposure Management 308
10.5 Transaction Exposure Management in Practice 317
Summary Points 321
Mini-Case China Noah Corporation 321
Questions ■ Problems ■ Internet Exercises 327
Appendix A: Complex Option Hedges 334
Appendix B: The Optimal Hedge Ratio and Hedge Effectiveness 342

Chapter 11 **Translation Exposure 344**

11.1 Overview of Translation 345
11.2 Translation Methods 348
11.3 Aidan Corporation's Translation Exposure 351
11.4 Managing Translation Exposure 356
Summary Points 361
Mini-Case Electrolux of Sweden's Currency Management 361
Questions ■ Problems ■ Internet Exercises 367

Chapter 12 **Operating Exposure 370**

12.1 A Multinational's Operating Exposure 371
12.2 Measuring Operating Exposure: Aidan Turkey 375
12.3 Strategic Management of Operating Exposure 380
12.4 Proactive Management of Operating Exposure 382
Summary Points 388
Mini-Case Brexit and Rolls-Royce 389
Questions ■ Problems ■ Internet Exercises 393

PART 4 Financing the Global Firm 399

Chapter 13 **Global Cost and Availability of Capital 400**

13.1 Financial Globalization and Strategy 400
13.2 International Portfolio Theory and Diversification 404
13.3 The Role of International Portfolio Investors 410

13.4 The Cost of Capital for MNEs Compared to Domestic Firms 414
13.5 Illustrative Case: Novo Industri A/S (Novo) 418
Summary Points 422
Mini-Case Ferrari's IPO—The Potential of the Prancing Horse 423
Questions ■ Problems ■ Internet Exercises 431

Chapter 14 **Funding the Multinational Firm 437**

14.1 Designing a Strategy to Source Capital Globally 438
14.2 Optimal Financial Structure 439
14.3 Raising Equity Globally 442
14.4 Depositary Receipts 445
14.5 Private Placement 450
14.6 Raising Debt Globally 452
14.7 Financing Foreign Subsidiaries 455
Summary Points 459
Mini-Case CEMEX's Debt Dilemma 460
Questions ■ Problems ■ Internet Exercises 466

Chapter 15 **Multinational Tax Management 471**

15.1 Tax Principles and Practices 472
15.2 Multinational Tax Management 479
15.3 Google: An Illustrative Case of Profit Repositioning 489
15.4 Global Tax Competitiveness 492
15.5 U.S. Tax Law Change in 2017 494
Summary Points 496
Mini-Case Apple's Global iTax Strategy 496
Questions ■ Problems ■ Internet Exercises 501

Chapter 16 **International Trade Finance 505**

16.1 The Trade Relationship 505
16.2 Key Documents 510
16.3 Government Programs to Help Finance Exports 517
16.4 Trade Financing Alternatives 518
16.5 Forfaiting 521
Summary Points 523
Mini-Case Crosswell International and Brazil 524
Questions ■ Problems ■ Internet Exercises 527

PART 5 Foreign Investments and Investment Analysis 531

Chapter 17 **Foreign Direct Investment and Political Risk 532**

17.1 The Foreign Direct Investment Decision 532
17.2 Structural Choices for Foreign Market Entry 534
17.3 Political Risk: Definition and Classification 539
17.4 Financial Impacts of Political Risk 540
17.5 Political Risk Mitigation 545

Summary Points *551*
Mini-Case Tengiz—The Definition of Political Risk 551
Questions ■ *Internet Exercises* *555*

Chapter 18 Multinational Capital Budgeting and Cross-Border Acquisitions 558

18.1 Complexities of Budgeting for a Foreign Project 559
18.2 Illustrative Case: Cemex Enters Indonesia 562
18.3 Real Option Analysis 574
18.4 Project Financing 575
18.5 Cross-Border Mergers and Acquisitions 576
Summary Points *582*
Mini-Case Elan and Royalty Pharma 583
Questions ■ *Problems* ■ *Internet Exercises* *587*

Answers to Selected End-of-Chapter Problems 592
Glossary 596
Index 614

PART ONE

Global Financial Environment

CHAPTER 1
Multinational Financial Management: Opportunities and Challenges

CHAPTER 2
The International Monetary System

CHAPTER 3
The Balance of Payments

CHAPTER 4
Financial Goals and Corporate Governance

CHAPTER

1 Multinational Financial Management: Opportunities and Challenges

The objects of a financier are, then, to secure an ample revenue; to impose it with judgement and equality; to employ it economically; and, when necessity obliges him to make use of credit, to secure its foundations in that instance, and forever, by the clearness and candor of his proceedings, the exactness of his calculations, and the solidity of his funds.

—Edmund Burke, *Reflections on the Revolution in France*, 1790, p. 667.

LEARNING OBJECTIVES

1.1 Explore the global financial marketplace—players and playing field

1.2 Consider how the theory of comparative advantage applies to multinational business

1.3 Examine how international financial management differs from domestic financial management

1.4 Discover the steps and stages of the globalization process

The subject of this book is the financial management of *multinational enterprises (MNEs)*—*multinational financial management*. MNEs are firms—both for-profit companies and not-for-profit organizations—that have operations in more than one country and conduct their business through *branches*, foreign subsidiaries, or joint ventures with host country firms. That conduct of business comes with challenges, as suggested by the following news release from Procter & Gamble Co. (P&G), an American multinational consumer goods company:

> *"The October–December 2014 quarter was a challenging one with unprecedented currency devaluations," said Chairman, President and Chief Executive Officer A. G. Lafley. "Virtually every currency in the world devalued versus the U.S. dollar, with the Russian Ruble leading the way. While we continue to make steady progress on the strategic transformation of the company—which focuses P&G on about a dozen core categories and 70 to 80 brands, on leading brand growth, on accelerating meaningful product innovation, and increasing productivity savings—the considerable business portfolio, product innovation, and productivity progress was not enough to overcome foreign exchange."*

—P&G News Release, January 27, 2015.

P&G is not alone. It is a brave new world, a new world in which digital startups may become multinational enterprises in hours—the *micro-multinational*, where the number of publicly traded companies on earth is shrinking, where the most challenging competitors are arising from emerging markets, and where more and more value is being created by "idea firms."

The global marketplace is seeing radical change, from Brexit, the United Kingdom's choice to exit the European Union, to the slowing and maturing of the global economy's primary growth engine, the Chinese economy. Other seismic shifts are changing corporate identities, such as the growing role of the Chinese currency, the renminbi, or the sea change likely to come from the decision by the United States in late 2017 to slash the corporate income tax rate. Change is indeed the constant.

International financial management requires managers and leaders all over the world to identify and navigate the prospective returns and risks of the global financial marketplace. These risks may all occur on the playing field of the global financial marketplace, but they are still a question of management—of navigating complexity in pursuit of the goals of the firm and all of its varied stakeholders.

This first chapter provides a brief overview of the global financial landscape including foreign currency markets and financial institutions—the ground rules and nomenclature of the game. We then explore the foundations of comparative advantage, those forces differentiating international from domestic finance. We conclude our introductory overview with the alternative paths firms may take in going global. The chapter concludes with a Mini-Case, *Crowdfunding Kenya*, that examines how the Internet and financial innovation are making capital more accessible to the people and businesses of the emerging world.

1.1 The Global Financial Marketplace

Business—domestic, international, global—involves the interaction of individuals and individual organizations for the exchange of products, services, and capital across markets. The global *capital markets* and business marketplace are in many ways the field of play. This is the landscape upon which the daily activities of global business play out. Like all institutions created by man, it is constantly changing, yet certain fundamental components rarely change. We begin by exploring the institutional and behavioral landscape of global business—specifically, the organizations and assets that make up the global financial marketplace.

Assets, Institutions, and Linkages

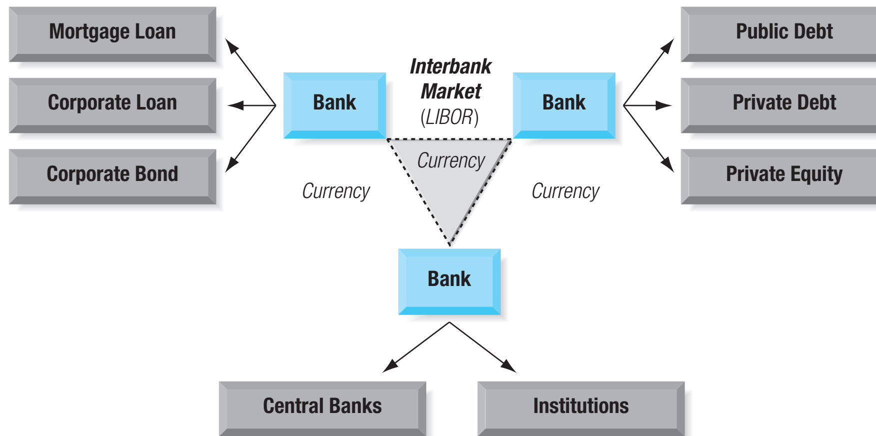
Exhibit 1.1 provides an overview of the global capital markets. One way to characterize the global financial marketplace is through its securities and institutions, all linked through the interbank market.

Securities. The securities—financial assets—at the heart of the global capital markets are the debt securities issued by governments (e.g., U.S. Treasury Bonds). These low-risk or risk-free securities form the foundation for the creation, trading, and pricing of other financial securities like bank loans, corporate bonds, and equities (stock). In recent years, a number of additional securities—derivatives—have been created from existing securities, the value of which is based on market value changes of the underlying securities. The health and security of the global financial system rely on the quality of these securities.

Institutions. The institutions of global finance are the central banks, which create and control each country's money supply; the commercial banks, which take deposits and extend loans to businesses, both local and global; and the multitude of other financial institutions created to trade securities and derivatives. These institutions take many shapes and are subject to many

EXHIBIT 1.1 Global Capital Markets

The global capital market is a collection of institutions (central banks, commercial banks, investment banks, not-for-profit financial institutions like the IMF and World Bank) and securities (bonds, mortgages, derivatives, loans, etc.), which are all linked via a global network—the *Interbank Market*. This interbank market, in which securities of all kinds are traded, is the critical pipeline system for the movement of capital.



The exchange of securities—the movement of capital in the global financial system—must all take place through a vehicle—currency. The exchange of currencies is itself the largest of the financial markets. The interbank market, which must *pass-through* and exchange securities using currencies, bases all of its pricing through the single most widely quoted interest rate in the world—LIBOR (the London Interbank Offered Rate).

different regulatory frameworks. The health and security of the global financial system rely on the stability of these financial institutions.

Linkages. The links between the financial institutions, the actual fluid or medium for exchange, are the interbank networks using currency. The ready exchange of currencies in the global marketplace is the first and foremost necessary element for the conduct of financial trading, and the global currency markets are the largest markets in the world. The exchange of currencies, and the subsequent exchange of all other securities globally via currency, are conducted through the international interbank market. This network, whose primary price is the London Interbank Offered Rate (LIBOR), is the core component of the global financial system.

The movement of capital across currencies and continents for the conduct of business has existed in many different forms for thousands of years. Yet, it is only within the past 50 years that the velocity of these capital movements has increased to the pace of an electron in the digital marketplace. And it is only within the past 20 years that this market has been able to reach the most distant corners of the earth at any moment of the day. The result has been an explosion of innovative products and services—some for better and some for worse.

The Market for Currencies

The price of any one country's currency in terms of another country's currency is called a *foreign currency exchange rate*. For example, the exchange rate between the U.S. dollar (indicated by the symbols $ or USD) and the European *euro* (€ or EUR) may be stated as "1.1274 dollar per euro" or simply abbreviated as $1.1274/€. This exchange rate can also be stated as "EUR1.00 = USD1.1274." Since most international business activities require at

least one of the two parties in a business transaction to either pay or receive payment in a currency that is different from their own, an understanding of exchange rates is critical to the conduct of global business.

Currency Symbols. As noted, USD and EUR are often used as the symbols for the U.S. dollar and the European Union's euro. These are the computer symbols (ISO-4217 codes) used today on the world's digital networks. The financial press, however, has a rich history of using a variety of different symbols, and a variety of different abbreviations are commonly used. For example, the British pound sterling may be indicated by £ (the pound symbol), GBP (Great Britain pound), STG (British pound sterling), ST£ (pound sterling), or UKL or UK£ (United Kingdom pound). This book uses both the simpler common symbols—the $ (dollar), the € (euro), the ¥ (yen), the £ (pound)—and the three-letter ISO codes. In addition to symbols, some currencies are known by more than one name. For example, China's currency is officially labeled the *yuan* and the *renminbi*.

Exchange Rate Quotations and Terminology. Exhibit 1.2 lists currency exchange rates for January 2, 2018, as would be quoted in New York or London. Each exchange rate listed is for a specific country's currency against the U.S. dollar, the euro, and the British pound. The rate listed is termed a "midrate" because it is the middle or average of the rates at which currency traders buy currency (*bid rate*) and sell currency (*offer rate*).

The U.S. dollar has been the focal point of currency trading since the 1940s. As a result, most of the world's currencies are quoted against the dollar—Mexican pesos per dollar, Brazilian reais per dollar, Hong Kong dollars per dollar, etc., but as shown in Exhibit 1.2, they can also be quoted against any other currency, including major currencies like the euro and pound. For example, the Japanese yen is commonly quoted against the dollar, euro, and pound, as ¥112.15 = $1.00, ¥135.08 = €1.00, and ¥152.29 = £1.00.

Quotation Conventions. Several of the world's major currency exchange rates follow a specific *quotation* convention that is the result of tradition and history. The exchange rate between the U.S. dollar and the euro is always quoted as "dollars per euro" or $/€. For example, $1.1179 listed in Exhibit 1.2 for "United States." Similarly, the exchange rate between the U.S. dollar and the British pound is always quoted as "dollars per pound" or $/£. For example, $1.2933 listed for "United States" in Exhibit 1.2. In addition, countries that were formerly members of the British Commonwealth will often be quoted against the U.S. dollar, as in U.S. dollars per Australian dollar.

If exchange rates never changed, the global financial marketplace would be a much kinder, simpler place. But, alas, that is not the case. Exchange rates change, and when they do, they alter the business results and competitiveness of all players on the playing field. As illustrated in *Global Finance in Practice 1.1*, it requires a careful calculation of even the amount of the change—percentage change. The change in exchange rates is the first example of our next subject—*risk*.

Financial Globalization and Risk

> *Back in the halcyon pre-crisis days of the late 20th and early 21st centuries, it was taken as self evident that financial globalization was a good thing. But the subprime crisis and eurozone dramas are shaking that belief . . . . [W]hat is the bigger risk now—particularly in the eurozone—is that financial globalization has created a system that is interconnected in some dangerous ways.*
>
> —"Crisis Fears Fuel Debate on Capital Controls," Gillian Tett, *Financial Times*, December 15, 2011.

EXHIBIT 1.2 Selected Global Currency Exchange Rates for January 2, 2018

Country	Currency	Symbol	Code	Currency equal to 1 Dollar	Currency equal to 1 Euro	Currency equal to 1 Pound
Argentina	peso	Ps	ARS	18.535	22.3254	25.1697
Australia	dollar	A$	AUD	1.2769	1.538	1.734
Brazil	real	R$	BRL	3.2634	3.9307	4.4315
Canada	dollar	C$	CAD	1.2505	1.5062	1.6981
Chile	peso	$	CLP	607.145	731.3062	824.4772
China	yuan	¥	CNY	6.4967	7.8253	8.8222
Czech Republic	koruna	Kc	CZK	21.1802	25.5115	28.7617
Denmark	krone	Dkr	DKK	6.18	7.4439	8.3922
Egypt	pound	£	EGP	17.743	21.3714	24.0942
Germany	euro	€	EUR	0.8302	1	1.1274
India	rupee	Rs	INR	63.4468	76.4216	86.158
Indonesia	rupiah	Rp	IDR	13,517.5000	16,281.8453	18,356.2021
Israel	shekel	Shk	ILS	3.4585	4.1658	4.6965
Japan	yen	¥	JPY	112.15	135.08	152.29
Kenya	shilling	KSh	KES	103.25	124.3646	140.2091
Malaysia	ringgit	RM	MYR	4.0195	4.8415	5.4583
Mexico	new peso	$	MXN	19.515	23.5058	26.5005
New Zealand	dollar	NZ$	NZD	1.4066	1.6942	1.9101
Nigeria	naira	₦	NGN	359.5	433.0178	488.1858
Norway	krone	NKr	NOK	8.1381	9.8023	11.0511
Phillippines	peso	₱	PHP	49.92	60.1286	67.7892
Poland	zloty	—	PLN	3.4555	4.1621	4.6924
Russia	ruble	R	RUB	57.585	69.3611	78.198
Singapore	dollar	S$	SGD	1.3292	1.601	1.805
South Africa	rand	R	ZAR	12.4588	15.0066	16.9185
South Korea	won	W	KRW	1,061.2500	1,278.2758	1,441.1325
Sweden	krona	SKr	SEK	8.1815	9.8546	11.1101
Switzerland	franc	Fr.	CHF	0.9722	1.171	1.3202
Taiwan	dollar	T$	TWD	29.6	35.6532	40.1955
Thailand	baht	B	THB	32.59	39.2547	44.2558
Turkey	lira	YTL	TRY	3.763	4.5326	5.1101
United Kingdom	pound	£	GBP	0.7364	0.887	1
Ukraine	hrywnja	—	UAH	28.1	33.8465	38.1586
Uruguay	peso	$U	UYU	28.69	34.5571	38.9598
United States	dollar	$	USD	1	1.2045	1.358
Venezuela	bolivar fuerte	Bs	VEB	9.9865	12.0287	13.5612
Vietnam	dong	d	VND	22,710.5000	27,354.8415	30,839.9254
Special Drawing Right	—	—	SDR	0.7003	0.8436	0.951

Note that a number of different currencies use the same symbol (for example both China and Japan have traditionally used the ¥ symbol, which means "round" or "circle," for yen and yuan respectively. All quotes are mid-rates, and are drawn from the *Financial Times*.

GLOBAL FINANCE IN PRACTICE 1.1

How to Calculate a Percentage Change in Spot Exchange Rates

The spot exchange rate is the foreign exchange market price of one currency in terms of another, available for immediate delivery at the earliest possible value date. With a daily trade volume exceeding USD 2 trillion, spot foreign exchange rates change almost every second and can be largely affected by major economic and political events. The British pound has suffered from lots of volatility since the June 2016 Brexit referendum, in which the UK voted to leave the European Union bloc. Let us try and trace the impact on the pound since 2016.

If your *home currency* is the euro (EUR), what is the percent change in the value of the British pound (GBP)? The calculation depends upon the designated home currency.

Foreign Currency Terms

On June 23 2016, the Brexit vote day, the pound traded at 1.2774 against the euro. By the last quarter of 2019, the United Kingdom was unable to reach a Brexit deal. As a result, the pound dropped to 1.1570 against the euro.

$$\%\Delta = \frac{\text{Begin rate} - \text{End rate}}{\text{End rate}} \times 100$$

$$= \frac{\text{GBP } 0.7828 - \text{GBP } 0.8643}{\text{GBP } 0.8643} \times 100 = -9.43\%$$

The British pound fell in value 9.43% against the euro. Note that it takes more pounds per euro, and the calculation resulted in a negative value, both characteristics of a fall in value.

Home Currency Terms

When the home currency price (the price, EUR) for a foreign currency (the unit, GBP) is used—the reciprocals of the foreign exchange quotes above—the formula for the percent change in the foreign currency is

$$\%\Delta = \frac{\text{End rate} - \text{Begin rate}}{\text{Begin rate}} \times 100$$

$$= \frac{\text{EUR } 1.1570 - \text{EUR } 1.2774}{\text{EUR } 1.2774} \times 100 = -9.43\%$$

The calculation yields the identical percentage change, a fall in the value of the pound by 9.43%. Many people find the home currency terms calculation to be the more "intuitive," because it reminds them of a general percentage change calculation (ending less beginning over beginning); however, one must be careful to remember that these are exchanges of currency for currency, and the currency that is designated as the home currency is significant.

2019 Fall of the British Pound

The fall of the British pound between in 2019 serves as a clear example of percentage change. The euro/pound exchange rate reached a historical low of 1.0742 on August 9 of 2019. This was basically attributed to a slide in year-on-year economic growth to 1.2% from 1.8%. This is the first impact of the withdrawal of financial institutions and businesses from London. Gloom increased, especially that there were strong rumors of an impending Brexit stalemate.

$$\%\Delta = \frac{\text{End rate} - \text{Begin rate}}{\text{Begin rate}} \times 100$$

$$= \frac{\text{EUR } 1.0742 - \text{EUR } 1.2774}{\text{EUR } 1.2774} \times 100 = -15.91\%$$

Such substantial devaluations are not conducive to attracting investments. In fact, they could further contribute to the outflow of funds from the United Kingdom.

Much of the discussion dominating global financial markets today is centered around the complexity of risks associated with *financial globalization*—the discussion goes far beyond whether such globalization is simply good or bad, and encompasses ways to lead and manage multinational firms in the rapidly moving marketplace. The following is but a sampling of risks that must be explored, considered, and ultimately, *managed*.

- The *international monetary system*, an eclectic mix of floating and managed fixed exchange rates, is under constant scrutiny. The rise of the Chinese renminbi is changing much of the world's outlook on currency exchange, reserve currencies, and the roles of the dollar and the euro (see Chapter 2).
- Large fiscal deficits, including the continuing eurozone crisis, plague most of the major trading countries of the world, complicating fiscal and monetary policies, and, ultimately, leading to the use of negative interest rates in an attempt to stimulate economies and protect currencies (see Chapter 3).

- Many countries experience continuing balance of payments imbalances, and in some cases, dangerously large deficits and surpluses—whether it be the twin surpluses enjoyed by China, the current account surplus of Germany, or the continuing current account deficits of the United States and United Kingdom, all will inevitably move exchange rates (see Chapter 3).
- Ownership and governance vary dramatically across the world. The publicly traded company is not the dominant global business organization—the privately held or family-owned business is the prevalent structure—and goals and measures of performance vary across business models (see Chapter 4).
- Global capital markets that normally provide the means to lower a firm's cost of capital, and even more critically, increase the availability of capital, have in many ways shrunk in size and have become less open and accessible to many of the world's organizations (see Chapter 2).
- Today's emerging markets are confronted with a new dilemma: the problem of first being the recipients of capital inflows, and then of experiencing rapid and massive capital outflows. Financial globalization has resulted in the ebb and flow of capital into and out of both industrial and emerging markets, greatly complicating financial management (Chapters 5 and 8).

Eurocurrencies and Eurocurrency Interest Rates

One of the major linkages of global money and capital markets is the eurocurrency market.

Eurocurrencies. *Eurocurrencies* are domestic currencies of one country on deposit in a second country. For example, a U.S. dollar deposit in a British bank, a eurodollar deposit, is one type of eurocurrency. Banks will pay interest on these deposits—eurocurrency interest—depending on the agreed upon maturity—a period ranging from overnight to more than a year or longer. Eurocurrency deposits are digitally transferred between banks.

The eurocurrency market serves two valuable purposes: (1) eurocurrency deposits are an efficient and convenient money market device for holding excess corporate liquidity; and (2) the eurocurrency market is a major source of short-term bank loans to finance corporate working capital needs, including the financing of imports and exports.

Any *convertible currency* can exist in "euro" form. Note that this use of the "euro" prefix should not be confused with the European currency called the euro. The eurocurrency market includes eurosterling (British pounds deposited outside the United Kingdom); euroeuros (euros on deposit outside the eurozone); euroyen (Japanese yen deposited outside Japan); and *eurodollars* (U.S. dollars deposited outside the U.S.).

Banks in which eurocurrencies are deposited are called eurobanks. A eurobank is a financial intermediary that simultaneously bids for time deposits and makes loans in a currency other than that of its home currency. Eurobanks are major world banks that conduct a eurocurrency business in addition to all other banking functions. Thus, the eurocurrency operation that qualifies a bank for the name eurobank is, in fact, a department of a large commercial bank, and the name springs from the performance of this function.

The modern eurocurrency market was born shortly after World War II. Eastern European holders of dollars, including the various state trading banks of the Soviet Union, were afraid to deposit their dollar holdings in the United States because those deposits might be attached by U.S. residents with claims against communist governments. Therefore, Eastern Europeans deposited their dollars in Western Europe, particularly with two Soviet banks: the Moscow Narodny Bank in London and the Banque Commerciale pour l'Europe du Nord in Paris.

These banks redeposited the funds in other Western banks, especially in London. Additional dollar deposits were received from various central banks in Western Europe, which elected to hold part of their dollar reserves in this form to obtain a higher yield. Commercial banks also placed their dollar balances in the market because specific maturities could be negotiated in the eurodollar market. Such companies found it financially advantageous to keep their dollar reserves in the higher-yielding eurodollar market. Various holders of international refugee funds also supplied funds.

Although the basic causes of the growth of the eurocurrency market are economic efficiencies, many unique institutional events during the 1950s and 1960s contributed to its growth.

- In 1957, British monetary authorities responded to a weakening of the pound by imposing tight controls on U.K. bank lending in sterling to nonresidents of the United Kingdom. Encouraged by the Bank of England, U.K. banks turned to dollar lending as the only alternative that would allow them to maintain their leading position in world finance. For this they needed dollar deposits.
- Although New York was "home base" for the dollar and had a large domestic money and capital market, international trading in the dollar centered in London because of that city's expertise in international monetary matters and its proximity in time and distance to major customers.
- Additional support for a European-based dollar market came from the balance of payments difficulties of the U.S. during the 1960s, which temporarily segmented the U.S. domestic capital market.

Ultimately, however, the eurocurrency market continues to thrive because it is a large international money market relatively free from governmental regulation and interference. The freedom from government interference, or even the relative security and stability offered by some governments over time, is the subject of our second *Global Finance in Practice, 1.2, The Rocketing Swiss Franc*.

GLOBAL FINANCE IN PRACTICE 1.2

The Rocketing Swiss Franc

The Swiss franc has been fighting its appreciation against the European euro for years. Not a member of the European Union, and possessing one of the world's most stable currencies for over a century, Switzerland is, however, an economy and a currency completely encased within the eurozone.

In 2011, in an attempt to stop the Swiss franc from continuing to grow in value against the euro (stop its *appreciation*), the Swiss Central Bank announced a "floor" on its value against the euro of 1.20 Swiss francs to 1 euro. To preserve this value, the Bank would intervene in the market by buying euros with Swiss francs anytime the market exchange rate threatened to hit the floor.

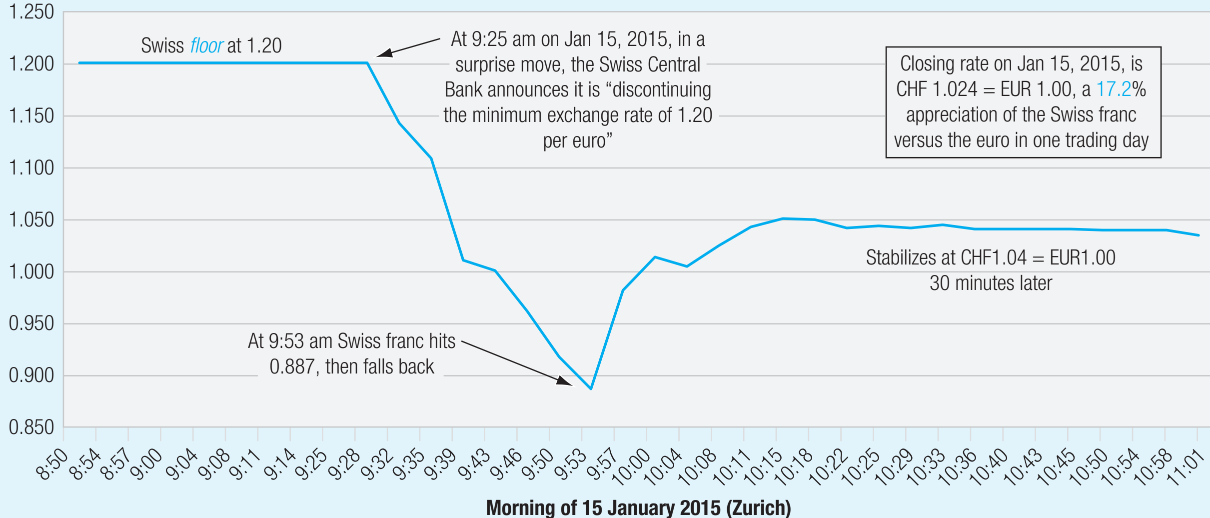
In early 2015, the markets continued to try and push the Swiss franc's value up against the euro (which means pushing its exchange value to lower than 1.20 Swiss francs per euro). The Swiss Central Bank continued to intervene, buying euros with Swiss francs and accumulating more and more euros in its reserves of foreign currency. The Bank had also set central bank interest rates at negative levels—yes, *negative*. This meant that the Bank charged depositors to hold Swiss franc deposits, an effort to dissuade investors from exchanging any currency, including the euro, for Swiss francs.

But the European Union's economies continued to struggle in 2014, and early reports of economic activity in 2015 were showing further slowing. Investors wished to exit the euro, fearing its future fall in value. The European Central Bank

(*continued*)

Swiss Franc's Appreciation by the Minute . . . January 2015

Swiss francs (CHF) = 1 European euro (EUR)



had added to their anxiety as it had announced that it would be undertaking expansionary government debt purchases—*quantitative easing*—(expansionary monetary policy) to kick-start the sluggish EU economy.

On the morning of January 15, 2015, the Swiss Central Bank shocked the markets by announcing that it was abandoning the 1.20 floor and cutting interest rates further (more negative). It had concluded that with the forthcoming monetary expansion from the ECB, there was no longer any way to keep the floodgates closed. The Swiss franc, as illustrated, appreciated versus the euro in minutes. For two of the world's major currencies, it was a very eventful day.

Eurocurrency Interest Rates. The reference rate of interest in the eurocurrency market is the *London Interbank Offered Rate (LIBOR)*. LIBOR is the most widely accepted rate of interest used in standardized quotations, loan agreements, or financial derivatives valuations. The use of interbank offered rates, however, is not confined to London. Most major domestic financial centers construct their own interbank offered rates for local loan agreements. Examples of such rates include *PIBOR* (Paris Interbank Offered Rate), *MIBOR* (Madrid Interbank Offered Rate), *SIBOR* (Singapore Interbank Offered Rate), and *FIBOR* (Frankfurt Interbank Offered Rate), to name just a few.

The key factor attracting both depositors and borrowers to the eurocurrency loan market is the narrow interest rate spread within that market. The difference between deposit and loan rates is often less than 1%. Interest spreads in the eurocurrency market are small for many reasons. Low lending rates exist because the eurocurrency market is a wholesale market where deposits and loans are made in amounts of $500,000 or more on an unsecured basis. Borrowers are usually large corporations or government entities that qualify for low rates because of their credit standing and because the transaction size is large. In addition, overhead assigned to the eurocurrency operation by participating banks is small.

Deposit rates are higher in the eurocurrency markets than in most domestic currency markets because the financial institutions offering eurocurrency activities are not subject to many of the regulations and reserve requirements imposed on traditional domestic banks and banking activities. With these costs removed, rates are subject to more competitive pressures, deposit rates are higher, and loan rates are lower. A second major area of cost savings associated with eurocurrency markets is that deposit insurance (such as the Federal Deposit Insurance Corporation, FDIC) and other assessments paid on deposits in the United States, for example, are unnecessary.