

Multinational Financial Management: Opportunities and Challenges

The objects of a financier are, then, to secure an ample revenue; to impose it with judgment 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. 467.

LEARNING OBJECTIVES

- 1.1 Understand how financial globalization alters the risks of multinational business
- 1.2 Explore the structures of the global financial marketplace
- 1.3 Consider how the theory of comparative advantage applies to multinational business
- 1.4 Examine how international financial management differs from domestic financial management
- 1.5 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, with *Brexit*, the United Kingdom’s choice to exit the European Union and with the Chinese economy, the economic engine of the global economy for the past decade, now showing early signs of aging and slowing. Other seismic shifts are changing corporate identities, such as the growing role of the Chinese currency, the renminbi, the increasing number of firms in higher-tax environments, like the United States, reincorporating in lower-tax environments—so-called *corporate inversion*—and acquisitions of old industrial firms by companies from India, Vietnam, South Africa. The global financial crisis of 2008–2009 is far in the past, but central banks in Europe, the United States, and Japan have pushed interest rates to zero or in some cases below zero in an attempt to prevent industrial economies from backsliding into recession, although this may be starting to change. Capital is flowing again at an ever-increasing pace—although the flow is both into and out of economies—and currency volatility is growing, not slowing.

How to identify and navigate these risks and many others is the focus of this book. 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. 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 is opening the emerging market world to global capital and its potential benefits.

1.1 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. . . what 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.

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 considered and 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).

1.2 The Global Financial Marketplace

Business—domestic, international, global—involves the interaction of individuals and individual organizations for the exchange of products, services, and capital through markets. The global capital markets are critical for the conduct of this exchange. The global financial crisis of 2008–2009 served as an illustration and a warning of how tightly integrated and fragile this marketplace can be.

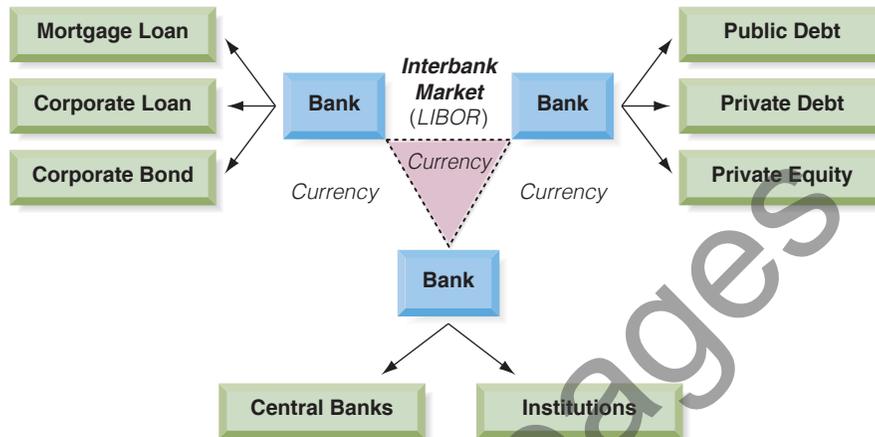
Assets, Institutions, and Linkages

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 relies on the quality of these securities.

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).

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

Interbank 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, is 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 “1.0922 dollar per euro” or simply abbreviated as \$1.0922/€. This exchange rate can also be stated as “EUR1.00 USD1.0922.” 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.

Exchange Rate Quotations and Terminology. Exhibit 1.2 lists currency exchange rates for August 12, 2016, 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—for example, exchange rates listed for the Argentine peso are $\text{Peso } 14.6325 = 1.00 \text{ U.S. dollar}$, $\text{Peso } 16.578 = 1.00 \text{ Euro}$, and $\text{Peso } 18.9241 = 1.00 \text{ British pound}$. The rate listed is termed a “mid-rate” 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 most currency trading since the 1940s. As a result, most of the world's currencies have been quoted against the dollar—Mexican pesos per dollar, Brazilian real per dollar, Hong Kong dollars per dollar, etc. This quotation convention is also followed against the world's major currencies, as listed in Exhibit 1.2. For example, the Japanese yen is commonly quoted against the dollar, euro, and pound, as in $\text{¥}100.95 = \$1.00$, $\text{¥}112.82 = \text{€}1.00$, and $\text{¥}130.50 = \text{£}1.00$.

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.

Percentage Change in Spot Rates

Assume that the Mexican peso has recently changed in value from $\text{MXN } 16.00 = \text{USD } 1.00$ to $\text{MXN } 20.00 = \text{USD } 1.00$. If your home currency is the U.S. dollar (USD), what is the percent change in the value of the Mexican peso (MXN)? The calculation depends upon the designated *home currency*.

Foreign Currency Terms. When the foreign currency price (the price, MXN) of the home currency (the unit, USD) is used, Mexican pesos per U.S. dollar in this case, the formula for the percent change (% Δ) in the foreign currency becomes

EXHIBIT 1.2 Selected Global Currency Exchange Rates

August 12, 2016 Country	Currency	Symbol	Code	Currency to equal 1 Dollar	Currency to equal 1 Euro	Currency to equal 1 Pound
Argentina	peso	Ps	ARS	14.6325	16.3578	18.9241
Australia	dollar	A\$	AUD	1.2996	1.4528	1.6807
Brazil	real	R\$	BRL	3.1573	3.5296	4.0833
Canada	dollar	C\$	CAD	1.2943	1.4469	1.6739
Chile	peso	\$	CLP	648.19	724.6152	838.30
China	yuan	¥	CNY	6.6446	7.4280	8.5934
Czech Republic	koruna	Kc	CZK	24.1708	27.0206	31.2599
Denmark	krone	Dkr	DKK	6.6557	7.4404	8.6077
Egypt	pound	£	EGP	8.8766	9.9231	11.4800
Euro	euro	€	EUR	0.8945	1.0000	1.1569
India	rupee	Rs	INR	66.8550	74.7376	86.4631
Indonesia	rupiah	Rp	IDR	13,121.00	14,668.05	16,969.31
Israel	shekel	Shk	ILS	8.8058	4.2545	4.9219
Japan	yen	¥	JPY	100.905	112.802	130.500
Kenya	shilling	KSh	KES	101.40	113.36	131.14
Malaysia	ringgit	RM	MYR	4.0285	4.5035	5.2100
Mexico	new peso	\$	MXN	18.2317	20.3813	23.5789
New Zealand	dollar	NZ\$	NZD	1.3825	1.5455	1.7879
Nigeria	naira	₦	NGN	320.250	358.009	414.177
Norway	krone	NKr	NOK	8.2090	9.1768	10.6166
Philippines	peso	P	PHP	46.6050	52.1000	60.2739
Poland	zloty	—	PLN	3.8167	4.2667	4.9361
Russia	ruble	P	RUB	64.7975	72.4375	83.8022
Singapore	dollar	S\$	SGD	1.3445	1.5030	1.7388
South Africa	rand	R	ZAR	13.4402	15.0248	17.3821
South Korea	won	W	KRW	1,103.35	1,233.44	1,426.95
Sweden	krona	SKr	SEK	8.4359	9.4305	10.9101
Switzerland	franc	Fr.	CHF	0.9733	1.0881	1.2588
Taiwan	dollar	T\$	TWD	31.3680	35.0665	40.5680
Thailand	baht	B	THB	34.7675	38.8668	44.9646
Turkey	lira	YTL	TRY	2.9504	3.2982	3.8157
United Kingdom	pound	£	GBP	0.7732	0.8644	1.0000
Ukraine	hrywnja	—	UAH	25.0500	28.0035	32.3970
Uruguay	peso	\$U	UYU	28.7350	32.1230	37.1628
United States	dollar	\$	USD	1.0000	1.1179	1.2933
Venezuela	bolivar fuerte	Bs	VEB	9.9900	11.1679	12.9200
Vietnam	dong	d	VND	22,301.00	24,930.44	28,841.80
Special Drawing Right	—	—	SDR	0.7162	0.8006	0.9262

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*.)

$$\% \Delta = \frac{\text{Begin rate} - \text{End rate}}{\text{End rate}} \times 100 = \frac{\text{MXN } 16.00 - \text{MXN } 20.00}{\text{MXN } 20.00} \times 100 = -20.00\%$$

The Mexican peso fell in value 20% against the dollar. Note that it takes more pesos per dollar, 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, USD) for a foreign currency (the unit, MXN) is used—the reciprocals of the foreign exchange quotes above—the formula for the percent change in the foreign currency is:

$$\% \Delta = \frac{\text{End rate} - \text{Begin rate}}{\text{Begin rate}} \times 100 = \frac{\text{USD } 0.05000 - \text{USD } 0.06250}{\text{USD } 0.06250} \times 100 = -20.00\%$$

The calculation yields the identical percentage change, a fall in the value of the peso by -20% . 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.

2015 Fall of the Argentine Peso. The fall in the Argentine peso in 2015 serves as a clear example of percentage change. On December 16, 2015, the government of Argentina announced it would lift *currency controls*—it would no longer restrict the ability of its citizens to move money out of the country. Over the next 24 hours, as Argentinians took advantage of this new freedom, the value of the Argentine peso fell from ARG 9.7908 per U.S. dollar to 13.6160, as pesos poured into the foreign exchange markets.

$$\% \Delta = \frac{\text{Begin rate} - \text{End rate}}{\text{End rate}} \times 100 = \frac{\text{ARG } 9.7908 - \text{ARG } 13.6160}{\text{ARG } 13.6160} \times 100 = -28\%$$

After the 28% drop in the value of the peso against the U.S. dollar, the peso stabilized. But a fall in its value of that magnitude, 28%, was both dramatic and devastating. Change itself is a characteristic of exchange rates as seen in *Global Finance in Practice 1.1*.

GLOBAL FINANCE IN PRACTICE 1.1

The Rocketing Swiss Franc

The Swiss franc has been fighting its appreciation against the European euro for years. Switzerland is not a member of the European Union and its currency has been one of the world's most stable for over a century. However, Switzerland's economy and currency are completely enclosed within the eurozone.

In 2011, in an attempt to stop the Swiss franc from continuing to grow in value against the euro (to 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.

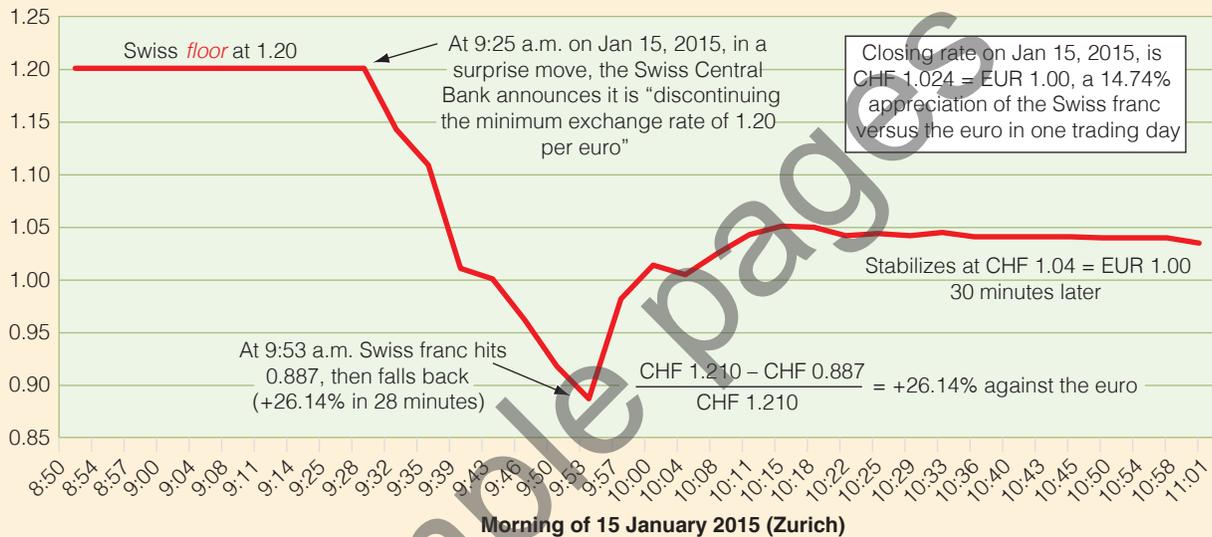
In late 2014, the markets continued to push the Swiss franc's value up against the euro (which means pushing its exchange value to lower than 1.20 Swiss francs per euro). The Swiss Central Bank continued to intervene, buying euros with Swiss francs and accumulating more and more euros in its reserves 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, 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 added to investor anxiety when it 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.

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



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.

Eurocurrency Interest Rates. The reference rate of interest in the eurocurrency market is the London Interbank Offered Rate, or 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.

1.3 The Theory of Comparative Advantage

The theory of comparative advantage provides a basis for explaining and justifying international trade in a model world assumed to enjoy free trade, perfect competition, no uncertainty, costless information, and no government interference. The theory's origins lie in the work of Adam Smith, and particularly his seminal book, *The Wealth of Nations*, published in 1776. Smith sought to explain why the division of labor in productive activities, and subsequently international trade of goods produced, increased the quality of life for all citizens. Smith based his work on the concept of absolute advantage, with every country specializing in the production of those goods for which it was uniquely suited. More would be produced for less. Thus, with each country specializing in products for which it possessed absolute advantage, countries could produce more in total and trade for goods that were cheaper in price than those produced at home.

In his work, *On the Principles of Political Economy and Taxation*, published in 1817, David Ricardo sought to take the basic ideas set down by Adam Smith a few logical steps further. Ricardo noted that even if a country possessed absolute advantage in the production of two goods, it might still be relatively more efficient than the other country in one good's production than the production of the other good. Ricardo termed this comparative advantage. Each country would then possess comparative advantage in the production of one of the two products, and both countries would benefit by specializing completely in one product and trading for the other.

Although international trade might have approached the comparative advantage model during the nineteenth century, it certainly does not today, for a variety of reasons. Countries do not appear to specialize only in those products that could be most efficiently produced by that country's particular factors of production. Instead, governments interfere with comparative advantage for a variety of economic and political reasons, such as to achieve full employment, economic development, national self-sufficiency in defense-related industries, and protection of an agricultural sector's way of life. Government interference takes the form of tariffs, quotas, and other non-tariff restrictions.

At least two of the factors of production—capital and technology—now flow directly and easily between countries, rather than only indirectly through traded goods and services. This direct flow occurs between related subsidiaries and affiliates of multinational firms, as well as between unrelated firms via loans and license and management contracts. Even labor can flow between countries to varying degrees, such as immigrants into the European Union from North Africa and the Middle East, and then in turn between states in the EU.

Modern factors of production are more numerous than in this simple model. Factors considered in the location of production facilities worldwide include managerial skills, a dependable legal structure for settling contract disputes, research and development competence,

educational levels of available workers, energy resources, consumer demand for brand name goods, mineral and raw material availability, access to capital, tax differentials, supporting infrastructure (roads, ports, and communication facilities), and possibly others.

Although the terms of trade are ultimately determined by supply and demand, the process by which the terms are set is different from that visualized in traditional trade theory. They are determined partly by administered pricing in oligopolistic markets.

Comparative advantage shifts over time as less-developed countries become more developed and realize their latent opportunities. For example, over the past 150 years, comparative advantage in producing cotton textiles has shifted from the United Kingdom to the United States, to Japan, to Hong Kong, to Taiwan, and to China. The classical model of comparative advantage also does not address certain other issues such as the effect of uncertainty and information costs, the role of differentiated products in imperfectly competitive markets, and economies of scale.

Nevertheless, although the world is a long way from the pure theory of comparative advantage, the general principle of comparative advantage is still valid. The closer the world gets to true international specialization, the more world production and consumption can be increased, provided that the problem of equitable distribution of the benefits can be solved to the satisfaction of consumers, producers, and political leaders. Complete specialization, however, remains an unrealistic limiting case, just as perfect competition is a limiting case in microeconomic theory.

Comparative advantage is still a relevant theory to explain why particular countries are most suitable for exports of goods and services that support the global supply chain of both MNEs and domestic firms. The comparative advantage of the twenty-first century, however, is one that is based more on services, and their cross-border facilitation by telecommunications and the Internet. The source of a nation's comparative advantage, however, is still the mixture of its own labor skills, access to capital, and technology.

For example, India has developed a highly efficient and low-cost software industry. This industry supplies not only the creation of custom software, but also call centers for customer support, and other information technology services. The Indian software industry is composed of subsidiaries of MNEs and independent companies. If you own a Hewlett-Packard computer and call the customer support center number for help, you are likely to reach a call center in India. Answering your call will be a knowledgeable Indian software engineer or programmer who will “walk you through” your problem. India has a large number of well-educated, English-speaking technical experts who are paid only a fraction of the salary and overhead earned by their U.S. counterparts. The overcapacity and low cost of international telecommunication networks today further enhances the comparative advantage of an Indian location.

The extent of global outsourcing is already reaching every corner of the globe. From financial back offices in Manila, to information technology engineers in Hungary, modern telecommunications now bring business activities to labor rather than moving labor to the places of business.

1.4 What Is Different About International Financial Management?

Exhibit 1.3 details some of the main differences between international and domestic financial management. These component differences include institutions, corporate governance, foreign exchange, and political risks, and the modifications required of financial theory and financial instruments. As illustrated in *Global Finance in Practice 1.2*, the foreign exchange risks impact all businesses.

EXHIBIT 1.3 What Is Different About International Financial Management?

Concept	International	Domestic
Culture, history, and institutions	Each foreign country is unique and not always understood by MNE management	Each country has a known base case
Corporate governance	Foreign countries' regulations and institutional practices are all uniquely different	Regulations and institutions are well known
Foreign exchange risk	MNEs face foreign exchange risks due to their subsidiaries, as well as import/export and foreign competitors	Foreign exchange risks from import/export and foreign competition (no subsidiaries)
Political risk	MNEs face political risk because of their foreign subsidiaries and high profile	Negligible political risks
Modification of domestic finance theories	MNEs must modify finance theories like capital budgeting and the cost of capital because of foreign complexities	Traditional financial theory applies
Modification of domestic financial instruments	MNEs utilize modified financial instruments such as options, forwards, swaps, and letters of credit	Limited use of financial instruments and derivatives because of few foreign exchange and political risks

Multinational financial management requires an understanding of cultural, historical, and institutional differences such as those affecting corporate governance. Although both domestic firms and MNEs are exposed to foreign exchange risks, MNEs alone face certain unique risks, such as political risks, that are not normally a threat to domestic operations.

MNEs also face other risks that can be classified as extensions of domestic finance theory. For example, the normal domestic approach to the cost of capital, sourcing debt and equity,

GLOBAL FINANCE IN PRACTICE 1.2**The Peso, Dollar, Yen—and Pokémon Go**

The launch of Pokémon Go had been a bit delayed, from January to July 2016, but it was highly successful when it did finally hit the market. By August people all over the world were wandering about with their phone in hand in search of Poké-stops and Pokémon. But despite all its success, for one of its owners—Nintendo of Japan (holding part interest)—it was not proving to be all that profitable. The problem was exchange rates. The Japanese yen had been gaining in value against most of the world's currencies including the U.S. dollar. And in turn, many emerging market country currencies, like the Mexican peso, had been weakening against the dollar.

Consider the case of Crystal Gomez of Mexico City. Crystal purchased 100 Pokécoins for 17 Mexican pesos (MXN or Ps). The price of the Pokécoins in U.S. dollars in January 2016 would have equaled \$0.9798 when converted to U.S. dollars (USD or \$) at the spot exchange rate of Ps17.35/\$ in January 2016.

$$\begin{aligned} \text{Price}_{\text{Jan 2016}}^{\$} &= \frac{\text{Price in pesos}}{\text{Spot exchange rate in pesos per dollar}} \\ &= \frac{\text{Ps}17}{\text{Ps}17.35/\$} = \$0.9798 \end{aligned}$$

Crystal's payment would go to Niantic (U.S.), the primary developer of Pokémon Go. Nintendo of Japan would only receive its share of the sale proceeds after being converted from U.S. dollars to Japanese yen (JPY or ¥). In January, the spot exchange rate between the dollar and the yen was ¥119.00/\$, so Nintendo could have earned ¥116.60 on the sale to Crystal Gomez in January.

$$\begin{aligned} \text{Nintendo proceeds in } \text{¥}_{\text{Jan 2016}} &= \text{Proceeds}^{\$} \times \text{Spot rate}(\text{¥}/\text{\$}) \\ &= \$0.9798 \times \text{¥}119.00/\text{\$} \\ &= \text{¥}116.60 \end{aligned}$$

Unfortunately for Nintendo, by August the Mexican peso was down to Ps18.75/\$, and the dollar was down to ¥102.50/\$, so the yen proceeds from Crystal's purchase had fallen by 25.5%, from ¥116.60 to only ¥92.93.

$$\begin{aligned} \text{Nintendo proceeds in } \text{¥}_{\text{Aug 2016}} &= \frac{\text{Ps}17}{\text{Ps}18.75/\$} \times \text{¥}102.50/\text{\$} \\ &= \text{¥}92.93 \end{aligned}$$

So as the original launch date slid from January to late July, exchange rates moved against Nintendo, taking a big bite out of the company's projected profits.

capital budgeting, working capital management, taxation, and credit analysis need to be modified to accommodate foreign complexities. Moreover, a number of financial instruments that are used in domestic financial management have been modified for use in international financial management. Examples are foreign currency options and futures, interest rate and currency swaps, and letters of credit.

The main theme of this book is to analyze how an MNE's financial management evolves as it pursues global strategic opportunities and as new constraints emerge. In this chapter, we introduce the challenges and risks associated with Aidan Corporation (Aidan), a company we use as an example throughout this book. Aidan is a company evolving from being domestic in scope to becoming truly multinational. The discussion includes constraints that a company will face in terms of managerial goals and governance as it becomes increasingly involved in multinational operations. But first we need to clarify the unique value proposition and advantages that the MNE was created to exploit.

Market Imperfections: A Rationale for the Existence of the Multinational Firm

MNEs strive to take advantage of imperfections in national markets for products, factors of production, and financial assets. Imperfections in the market for products translate into market opportunities for MNEs. Large international firms are better able to exploit such competitive factors as economies of scale, managerial and technological expertise, product differentiation, and financial strength than are their local competitors. In fact, MNEs thrive best in markets characterized by international oligopolistic competition, where these factors are particularly critical. In addition, once MNEs have established a physical presence abroad, they are in a better position than purely domestic firms to identify and implement market opportunities through their own internal information network.

Why Do Firms Become Multinational?

Strategic motives drive the decision to invest abroad and become an MNE. These motives can be summarized under the following categories:

1. *Market seekers* produce in foreign markets either to satisfy local demand or to export to markets other than their home market. U.S. automobile firms manufacturing in Europe for local consumption are an example of market-seeking motivation.
2. *Raw material seekers* extract raw materials wherever they can be found, either for export or for further processing and sale in the country in which they are found—the host country. Firms in the oil, mining, plantation, and forest industries fall into this category.
3. *Production efficiency seekers* produce in countries where one or more of the factors of production are underpriced relative to their productivity. Labor-intensive production of electronic components in Taiwan, Malaysia, and Mexico is an example of this motivation.
4. *Knowledge seekers* operate in foreign countries to gain access to technology or managerial expertise. For example, German, Dutch, and Japanese firms have purchased U.S. electronics firms for their technology.
5. *Political safety seekers* acquire or establish new operations in countries that are considered unlikely to expropriate or interfere with private enterprise. For example, Hong Kong firms invested heavily in the United States, United Kingdom, Canada, and Australia in anticipation of the consequences of China's 1997 takeover of the British colony.

These five types of strategic considerations are not mutually exclusive. Forest products firms seeking wood fiber in Brazil, for example, may also find a large Brazilian market for a portion of their output.

In industries characterized by worldwide oligopolistic competition, each of the above strategic motives should be subdivided into *proactive* and *defensive* investments. Proactive investments are designed to enhance the growth and profitability of the firm itself. Defensive investments are designed to deny growth and profitability to the firm's competitors. Examples of the latter are investments that try to preempt a market before competitors can get established in it, or capture raw material sources and deny them to competitors.

1.5 The Globalization Process

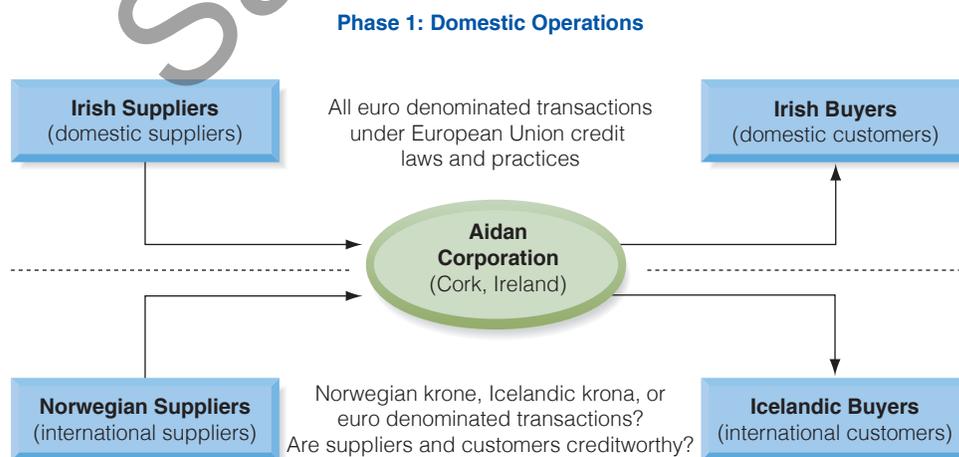
Aidan Corporation is a hypothetical Irish firm that is used as an illustrative example throughout the book to demonstrate the phases of the globalization process—the structural and managerial changes and challenges experienced by a firm as it moves its operations from domestic to global.

Global Transition I: Domestic Phase to the International Trade Phase

Aidan is a young firm that manufactures and distributes an array of telecommunication equipment. Its initial strategy is to develop a sustainable competitive advantage in the Irish market. Like many other young firms, it is constrained by its small size, competitors, and lack of access to cheap and plentiful sources of capital. The top half of Exhibit 1.4 shows Aidan in its early domestic phase.

Aidan sells its products in euros to Irish customers and buys its manufacturing and service inputs from Irish suppliers, paying euros. The creditworthiness of all suppliers and buyers is established under European practices and procedures. A potential issue for Aidan at this time is that, although Aidan is not international or global in its operations, some of its competitors, suppliers, or buyers may be. This is often the impetus to push a firm like Aidan into the first phase of the globalization process—into international trade. Aidan was founded in Dublin by Aidan McClafferty in 1960 to make telecommunication equipment. The family-owned business expanded slowly but steadily over the following 60 years. The demands of continual technological investment in the 1990s, however, required that the firm raise additional equity capital in order to compete. This need for capital led to its initial

EXHIBIT 1.4 Aidan Corp: Initiation of the Globalization Process



public offering (IPO) in 1998. As a publicly traded Irish company on Euronext Dublin, Aidan's management sought to create value for its shareholders.

As Aidan became a visible and viable competitor in the Irish market, strategic opportunities arose to expand the firm's market reach by exporting products and services to one or more foreign markets. The European Economic Area (EEA) made trade with other European countries such as Norway and Iceland attractive. This second phase of the globalization process is shown in the lower half of Exhibit 1.4. Aidan responded to these globalization forces by importing inputs from Norwegian suppliers and making export sales to Icelandic buyers. We define this phase of the globalization process as the International Trade Phase.

Exporting and importing products and services increases the demands of financial management over and above the traditional requirements of the domestic-only business in two ways. First, direct foreign exchange risks are now borne by the firm. Aidan may now need to quote prices in foreign currencies, accept payment in foreign currencies, or pay suppliers in foreign currencies. As the values of currencies change from minute to minute in the global marketplace, Aidan will increasingly experience significant risks from the changing values associated with these foreign currency payments and receipts.

Second, the evaluation of the credit quality of foreign buyers and sellers is now more important than ever. Reducing the possibility of non-payment for exports and non-delivery of imports becomes a key financial management task during the international trade phase. This credit risk management task is much more difficult in international business, as buyers and suppliers are new, subject to differing business practices and legal systems, and generally more challenging to assess.

Global Transition II: The International Trade Phase to the Multinational Phase

If Aidan is successful in its international trade activities, the time will come when the globalization process will progress to the next phase. Aidan will soon need to establish foreign sales and service affiliates. This step is often followed by establishing manufacturing operations abroad or by licensing foreign firms to produce and service Aidan's products. The multitude of issues and activities associated with this second, larger global transition is the real focus of this book.

Aidan's continued globalization will require it to identify the sources of its competitive advantage, and with that knowledge, expand its intellectual capital and physical presence globally. A variety of strategic alternatives are available to Aidan—the foreign direct investment sequence—as shown in Exhibit 1.5. These alternatives include the creation of foreign sales offices, the licensing of the company name and everything associated with it, and the manufacturing and distribution of its products to other firms in foreign markets. As Aidan moves further down and to the right in Exhibit 1.5, the extent of its physical presence in foreign markets increases. It may now own its own distribution and production facilities, and ultimately, it may want to acquire other companies. Once Aidan owns assets and enterprises in foreign countries it has entered the multinational phase of its globalization.

The Multinational Enterprise's Consolidated Financial Results

Aidan will create more and more foreign subsidiaries as it expands globally. Some MNEs may only have one foreign subsidiary, while others, like Johnson & Johnson (U.S.), have nearly 200. Each subsidiary will have its own set of financial statements and results (income statement, balance sheet, and statement of cash flow). Each subsidiary is also likely operating in a different currency, subject to differing tax rates, accounting practices such as depreciation, and a multitude of other financial parameters. The company, however, must periodically consolidate all those financial results and report them in the currency of its home country.

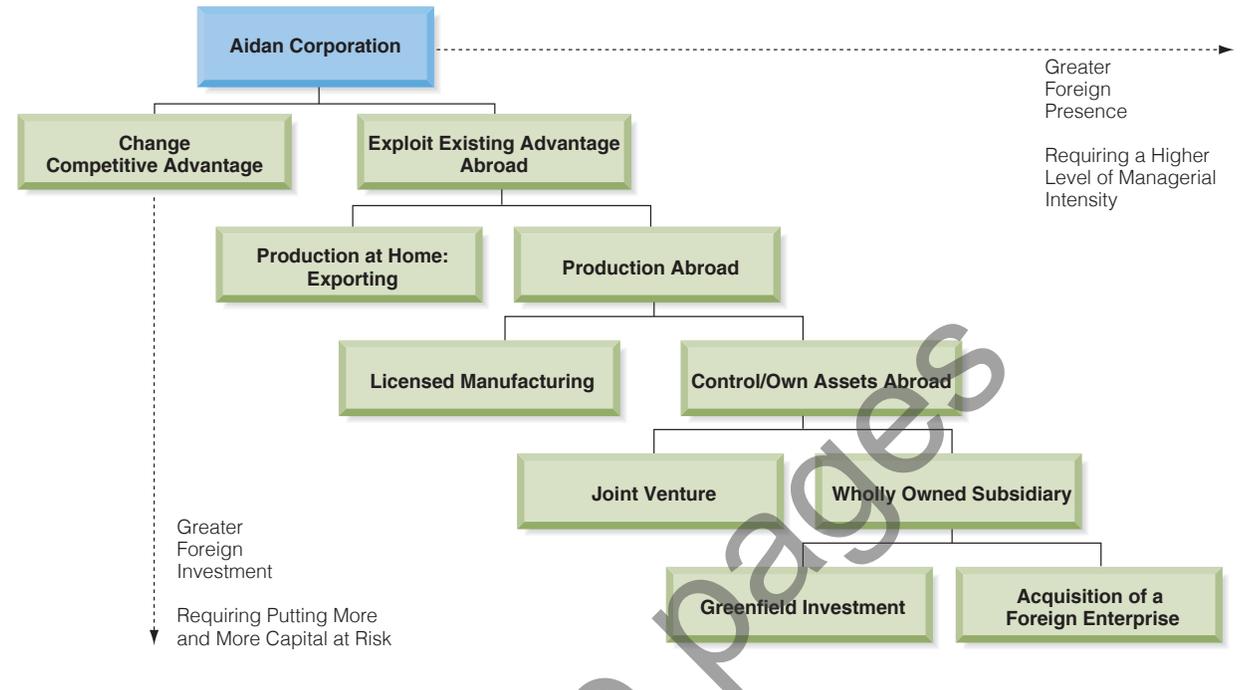
EXHIBIT 1.5 Aidan's Foreign Direct Investment Sequence

Exhibit 1.6 illustrates a simplified income statement consolidation for Aidan. Assuming that Ireland-based Aidan has two foreign subsidiaries, one in Malaysia and one in Turkey, in addition to its Ireland operations, it converts the various income statement items to euros from Malaysian ringgit and Turkish lira at the average exchange rate for each currency pair for the period (in this case the year). As we will see in later chapters, this process results in a number of currency risks and exposures, as exchange rates may change in ways that increase or decrease consolidated results.

The Limits to Financial Globalization

The theories of international business and international finance introduced in this chapter have long argued that with an increasingly open and transparent global marketplace in which capital may flow freely, capital will increasingly flow and support countries and companies based on the theory of comparative advantage. Since the mid-twentieth century, this has indeed been the case as more and more countries have pursued more open and competitive markets. But the past decade has seen the growth of a new kind of limit or impediment to financial globalization: the increasing influence and self-enrichment of organizational insiders.

One possible representation of this process can be seen in Exhibit 1.7. If influential insiders in corporations and sovereign states continue to pursue the increase in firm value, there will be a definite and continuing growth in financial globalization. But, if these same influential insiders pursue their own personal agendas, which may increase their personal power and influence or personal wealth, or both, then capital will not flow into these sovereign states and corporations. The result is the growth of financial inefficiency and the segmentation of globalization outcomes creating winners and losers. As we will see throughout this book, this barrier to international finance may indeed become increasingly troublesome.

EXHIBIT 1.6 Selected Consolidated Income Results for Aidan (Ireland)

As an Ireland-based multinational company, Aidan must consolidate the financial results (in this case, sales and earnings from the income statements) of foreign subsidiaries. This requires converting foreign currency values into euros.*

Country	Currency	Sales (millions)	Avg Exchange Rate for Year	Sales (millions euros)	Percent of Total
Ireland	Euro (€)	€400		€400	61.3%
Malaysia	Malaysian ringgit (MYR)	MYR 500	MYR 4.59 = €1.00	€108.9	16.7%
Turkey	Turkish lira (₺)	₺900	₺6.28 = €1.00	€143.3	22.0%
				€652.2	100%

Country	Currency	Earnings (millions)	Avg Exchange Rate for Year	Earnings (millions in euros)	Percent of Total
Ireland	Euro (€)	€38.1		€38.1	58.9%
Malaysia	Malaysian ringgit (MYR)	MYR 43.75	MYR 4.59 = €1.00	€9.53	14.7%
Turkey	Turkish lira (₺)	₺107.1	₺6.28 = €1.00	€17.05	26.4%
				€64.68	100%

Aidan, for the year shown, generated 61.3% of its global sales in Ireland, with those Irish sales making up 58.9% of its consolidated profits. From quarter to quarter and year to year, both the financial performance of the individual subsidiaries will change in addition to exchange rates.

* This is a simplified consolidation. Actual consolidation accounting practices require a number of specific line item adjustments not shown here.

EXHIBIT 1.7

The Limits of Financial Globalization

There is a growing debate over whether many of the insiders and rulers of organizations with enterprises globally are taking actions consistent with creating firm value or consistent with increasing their own personal stakes and power.



If these influential insiders are building personal wealth over that of the firm, it will indeed result in preventing the flow of capital across borders, currencies, and institutions to create a more open and integrated global financial community.

Source: Constructed by authors based on "The Limits of Financial Globalization," Rene M. Stulz, *Journal of Applied Corporate Finance*, Vol. 19, No. 1, Winter 2007, pp. 8–15.

GLOBAL FINANCE IN PRACTICE 1.3

ESG Investment

Environmental, social, and governance (ESG) refer to the three sets of criteria of sustainability commonly applied to firms. Environmental criteria measure a firm's energy employment, waste management, emissions and other kinds of pollution, etc. Social criteria examine a firm's relationship with various stakeholders, such as employees, clients, suppliers, and the community at large. Governance criteria judge a firm's accounting and investment practices, whistleblower protection, and prevention of conflicts of interest among its shareholders, management, and board members.

While ESG criteria help ensure that a firm invests responsibly and avoids activities that are harmful to the society, investors are also realizing that these criteria have a practical purpose beyond any ethical concerns. At the same time, rating agencies have started to perform ESG ratings to quantify hidden risks that cannot be measured by traditional financial metrics. Thus, investors are now able to avoid firms that engage in practices that signal a more holistically measured risk factor and optimize their returns in a better way. In a 2019 poll of individual and institutional investors, over 67% of the respondents reported to focus on ESG factors when making an investment decision, and 13% of the respondents said they manage ESG-dedicated funds.¹

¹ Clermont Partners, 2019. "The Rise of "E" and "S" in ESG Investing," June 11. https://www.clermontpartners.com/blog/the-rise-of-the-e-and-s-in-esg-investing/?utm_campaign=ESG%20Elevate&utm_source=hs_email&utm_medium=email&utm_content=73583342

This growing dilemma is also something of a composite of what this book is about. The three fundamental elements—financial theory, global business, and management beliefs and actions—combine to present either the problem or the solution to the growing debate over the benefits of globalization to countries and cultures worldwide. And as highlighted by *Global Finance in Practice 1.3*, the objectives and responsibilities of the modern multinational enterprise have grown significantly more complex with these elements.

We close this chapter and open this book with the simple words of one of our colleagues in a recent conference on the outlook for global finance and global financial management.

Welcome to the future. This will be a constant struggle. We need leadership, citizenship, and dialogue. —Donald Lessard, in *Global Risk, New Perspectives and Opportunities*, 2011, p. 53.

Summary Points

- The creation of value requires combining three critical elements: (1) an open marketplace; (2) high-quality strategic management; and (3) access to capital.
- The theory of comparative advantage provides a basis for explaining and justifying international trade in a model world of free and open competition.
- International financial management requires an understanding of cultural, historical, and institutional differences, such as those affecting corporate governance.
- Although both domestic firms and MNEs are exposed to foreign exchange risks, MNEs alone face certain unique risks, such as political risks, that are not normally a threat to domestic operations.
- MNEs strive to take advantage of imperfections in national markets for products, factors of production, and financial assets.
- The decision whether or not to invest abroad is driven by strategic motives and may require the MNE to enter into global licensing agreements, joint ventures, cross-border acquisitions, or greenfield investments.
- If influential insiders in corporations and sovereign states pursue their own personal agendas, which may increase their personal power, influence, or wealth, then capital will not flow into these sovereign states and corporations. This will, in turn, create limitations to globalization in finance.

MINI-CASE

Crowdfunding Kenya¹

The concept of crowdfunding has a number of parallels in traditional Kenyan culture. *Harambee* is a long-used practice of collective fundraising for an individual obligation like travel or medical expenses. Another Kenyan practice, *chama*, involves group fundraising for loans or investments by private groups. In either case, they have strong links to the fundamental principle of a community. In the case of crowdfunding, it is an online community.

Crowdfunding is an Internet-enabled method of raising capital for business startups without going through the arduous, costly, and time-consuming process of traditional equity capital fundraising. The rapid growth in crowdfunding over recent years has been based primarily in the major industrial country markets of North America and Western Europe where there is a highly organized, developed, and deep financial sector, but a sector that often shuts out the small, innovative, non-traditional entrepreneur.

The concept of raising funds from a large crowd or group is not new. It is a technique that has been employed by individuals, organizations, and even governments for centuries. Beethoven and Mozart both raised funds for their work through pre-creation subscriptions. The United States

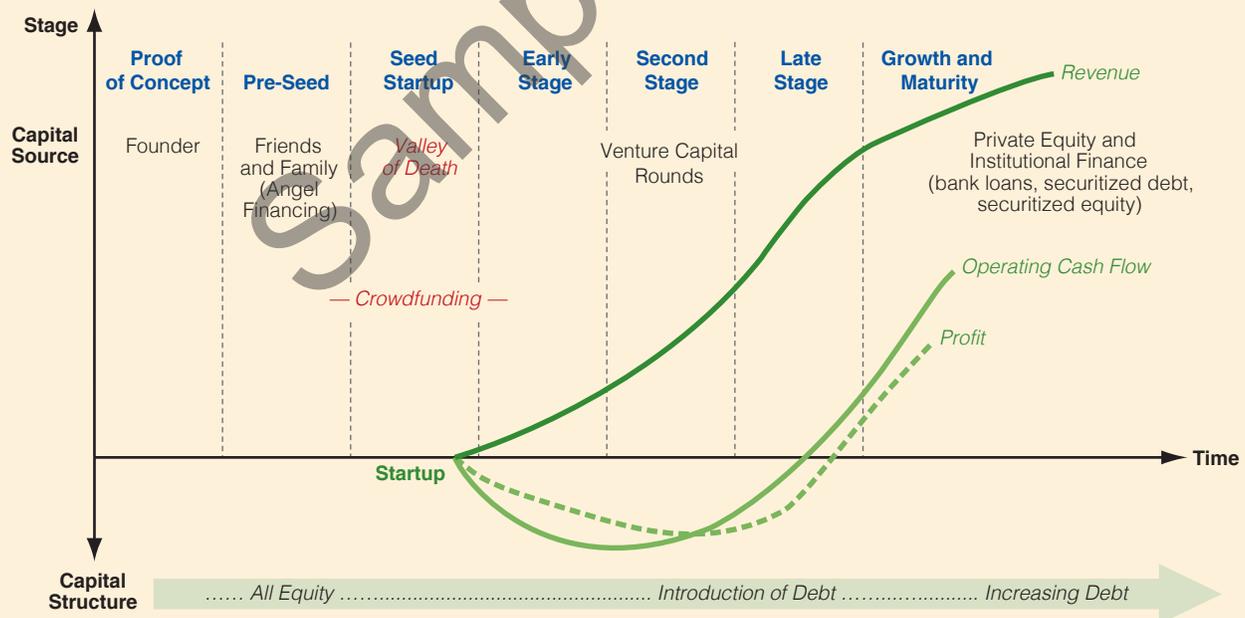
and France both used an early form of crowdfunding fund raising to construct the Statue of Liberty. But crowdfunding's real potential may now lie in funding new business startups in emerging markets—markets where the capital sources and institutions available to small and medium enterprises (SMEs) within the country may be limited. If crowdfunding can provide access to capital that many entrepreneurs need, tapping a larger more affordable cross-border financial ecosystem, then business, economic, and social development in the emerging markets may be able to take a great step forward. Kenya is one country attempting to pilot the effort.

The Capital Lifecycle

The ability of a startup business to access affordable capital through the early stages of its lifecycle has been the focus of a multitude of financial innovations in the past two decades. But until recently, there have been a number of gaps in the capital lifecycle—the institutions and sources of capital available to an enterprise as it evolves—putting many startup businesses at risk.

Exhibit A illustrates the capital lifecycle of a for-profit enterprise. An entrepreneur—the founder—puts up his own money in the first stage, the proof of concept. This is

EXHIBIT A The Capital Lifecycle



¹Copyright © 2015 Thunderbird School of Global Management at Arizona State University. All rights reserved. This case was prepared by Professor Michael H. Moffett for the purpose of classroom discussion only. The author would like to thank Sherwood Neiss of Crowdfunding Capital Advisors for helpful comments.