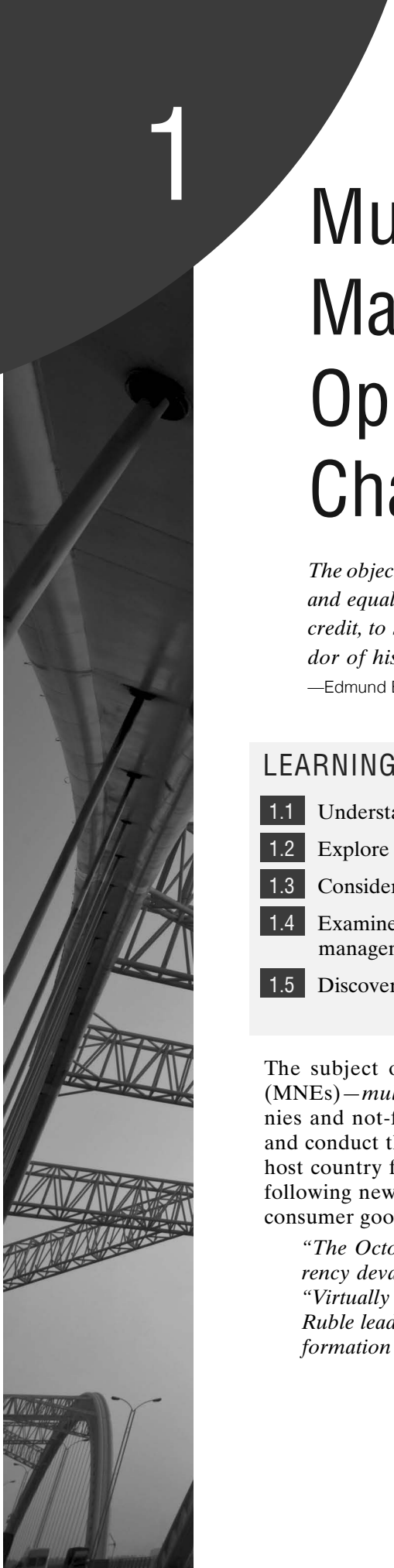
PART 1

Global Financial Environment



1 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.

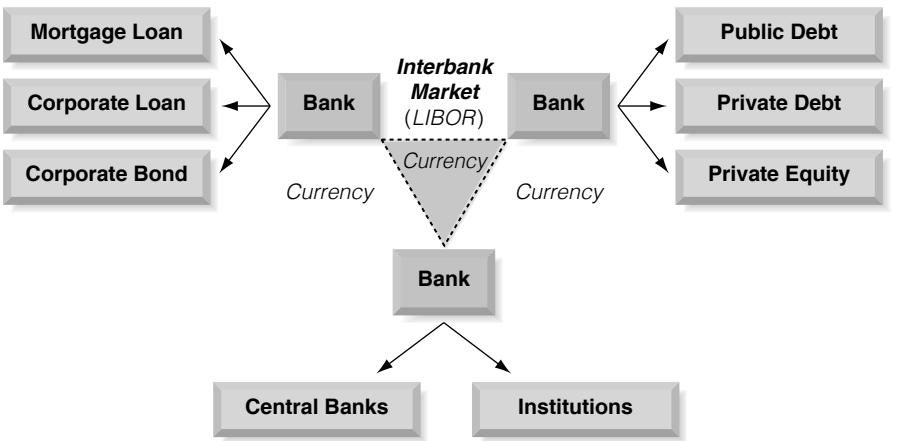
Assets, Institutions, and Linkages

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 Peso 14.6325 = 1.00 U.S. dollar, Peso 16.578 = 1.00 Euro, and Peso 18.9241 = 1.00 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 ¥100.95 = $1.00, ¥112.82 = €1.00, and ¥130.50 = £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 MXN 16.00 = USD 1.00 to MXN 20.00 = 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 / Region	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	3.8058	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	₱	PHP	46.6050	52.1000	60.2739
Poland	zloty	—	PLN	3.8167	4.2667	4.9361
Russia	ruble	₽	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
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.

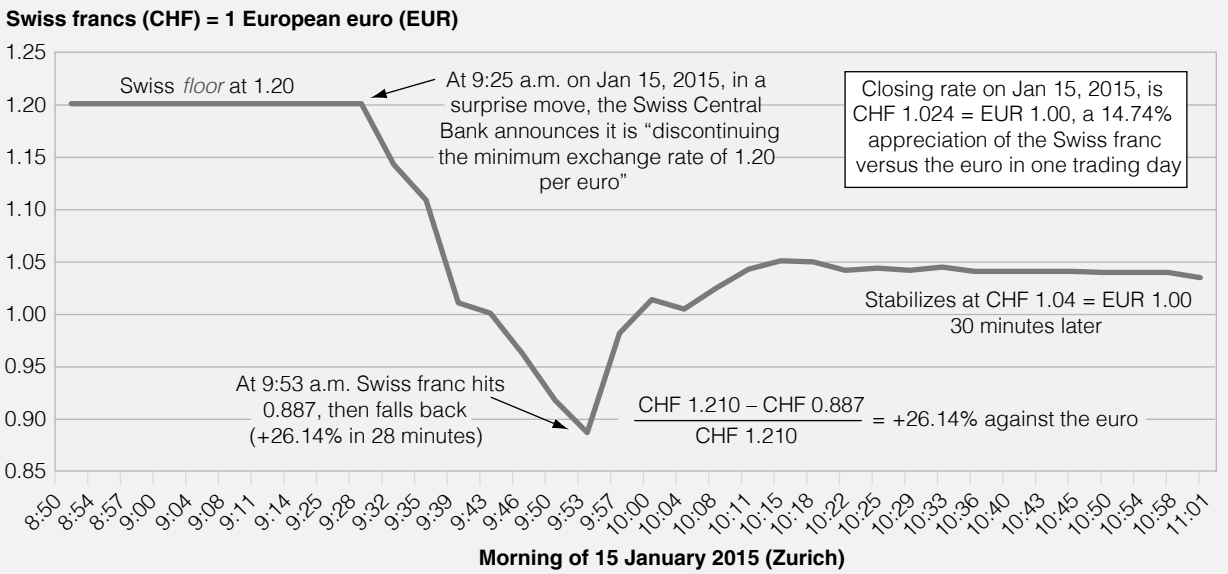
In 2011, in an attempt to stop the Swiss franc from continuing to grow in value against the euro (to stop its appreciation), the Swiss Central Bank announced a "floor" on its value against the euro of 1.20 Swiss francs to 1 euro. To preserve this value, the Bank would intervene in the market by buying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



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, 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 Pokéstops 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.

$$\text{Price}^{\$}_{\text{Jan 2016}} = \frac{\text{Price in pesos}}{\text{Spot exchange rate in pesos per dollar}} = \frac{\text{Ps17}}{\text{Ps17.35/\$}} = \$0.9798$$

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.

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

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.

$$\begin{aligned}\text{Nintendo proceeds in } ¥_{\text{Aug 2016}} &= \frac{\text{Ps17}}{\text{Ps18.75/\$}} \times ¥102.50/\$\\ &= ¥92.93\end{aligned}$$

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 Ganado Corporation (Ganado), a company we use as an example throughout this book. Ganado 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 China, 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.

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

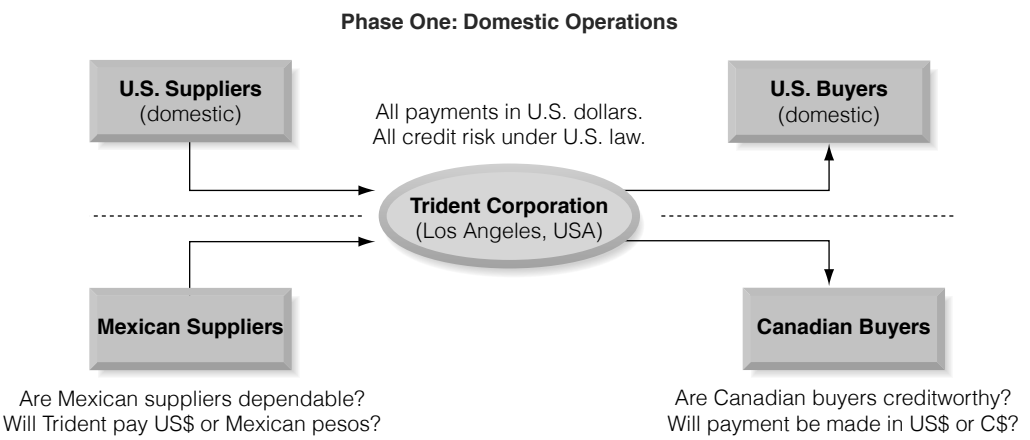
Ganado is a hypothetical U.S.-based firm that is used as an illustrative example throughout the book to demonstrate the phases of the globalization process—the structural and managerial changes and challenges experienced by a firm as it moves its operations from domestic to global.

Global Transition I: Domestic Phase to the International Trade Phase

Ganado is a young firm that manufactures and distributes an array of telecommunication devices. Its initial strategy is to develop a sustainable competitive advantage in the U.S. 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 Ganado in its early domestic phase.

Ganado sells its products in U.S. dollars to U.S. customers and buys its manufacturing and service inputs from U.S. suppliers, paying U.S. dollars. The creditworth of all suppliers and buyers is established under domestic U.S. practices and procedures. A potential issue for Ganado at this time is that, although Ganado 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 Ganado into the first phase of the globalization process—into international trade. Ganado was founded in Los Angeles by James Winston in 1948 to make telecommunications equipment. The family-owned business expanded slowly but steadily over the following 40 years. The demands of continual technological investment in the 1980s, however, required that the firm raise additional equity capital in order to compete. This need for capital led to its initial

EXHIBIT 1.4 **Ganado Corp: Initiation of the Globalization Process**



public offering (IPO) in 1988. As a U.S.-based publicly traded company on the New York Stock Exchange, Ganado's management sought to create value for its shareholders.

As Ganado became a visible and viable competitor in the U.S. market, strategic opportunities arose to expand the firm's market reach by exporting products and services to one or more foreign markets. The North American Free Trade Agreement (NAFTA) made trade with Mexico and Canada attractive. This second phase of the globalization process is shown in the lower half of Exhibit 1.4. Ganado responded to these globalization forces by importing inputs from Mexican suppliers and making export sales to Canadian 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. Ganado 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, Ganado 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 Ganado is successful in its international trade activities, the time will come when the globalization process will progress to the next phase. Ganado 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 Ganado's products. The multitude of issues and activities associated with this second, larger global transition is the real focus of this book.

Ganado'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 Ganado—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 Ganado 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 Ganado owns assets and enterprises in foreign countries it has entered the multinational phase of its globalization.

The Multinational Enterprise's Consolidated Financial Results

Ganado 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 Ganado's Foreign Direct Investment Sequence

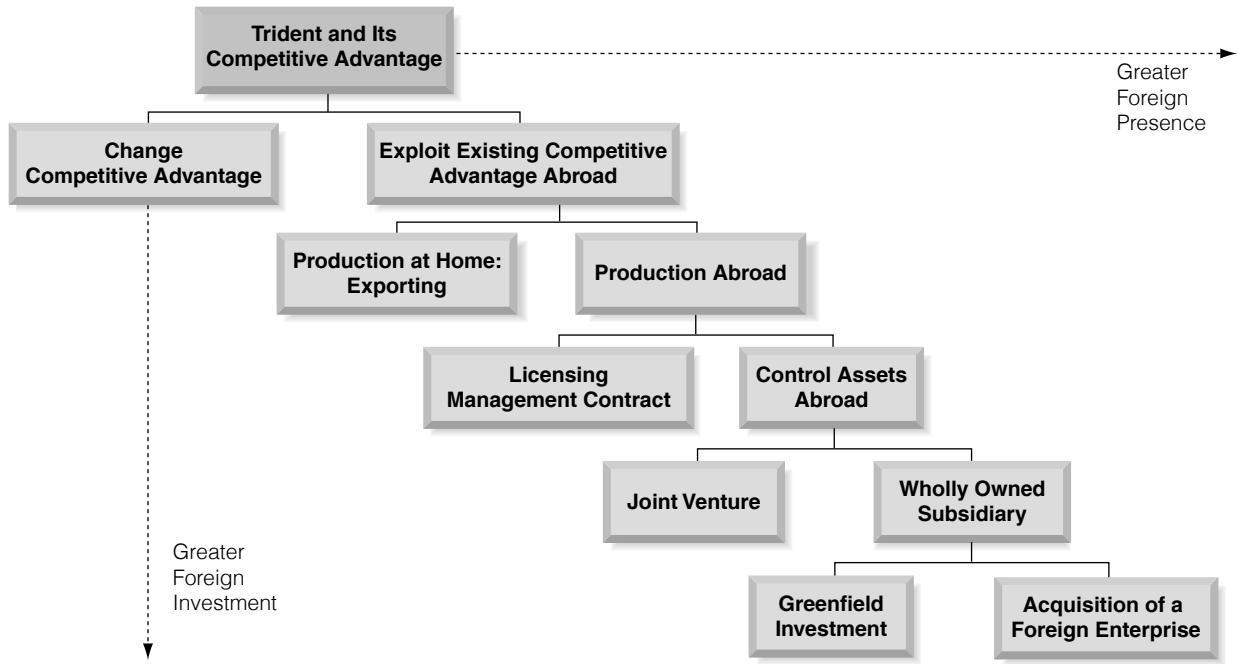


Exhibit 1.6 illustrates a simplified income statement consolidation for Ganado. Assuming that U.S.-based Ganado has two foreign subsidiaries, one in Europe and one in China, in addition to its U.S. operations, it converts the various income statement items to U.S. dollars from euros and Chinese renminbi 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 Ganado (U.S.)

As a U.S.-based multinational company, Ganado must consolidate the financial results (in this case sales and earnings from the income statements) of its foreign subsidiaries. This requires converting foreign currency values into U.S. dollars.* For the year shown, Ganado generated 57% of its global sales in the United States, with those U.S. sales making up 56% of its consolidated profits. The financial results of the foreign subsidiaries change over time due both to changes in the subsidiaries financial performance and to translating those results back to US$ at exchange rates that change over time.

Sales

Country / Region	Currency	Sales (millions)	Avg Exchange Rate for Year	Sales (millions US$)	Percent of Total
United States	U.S. dollar ($)	$300		$300	57%
Europe	European euro (€)	€120	$1.12 = €1.00	$134.4	26%
China	Chinese renminbi (¥)	¥600	¥6.60 = $1.00	$90.9	17%
				$525.3	100%

Earnings

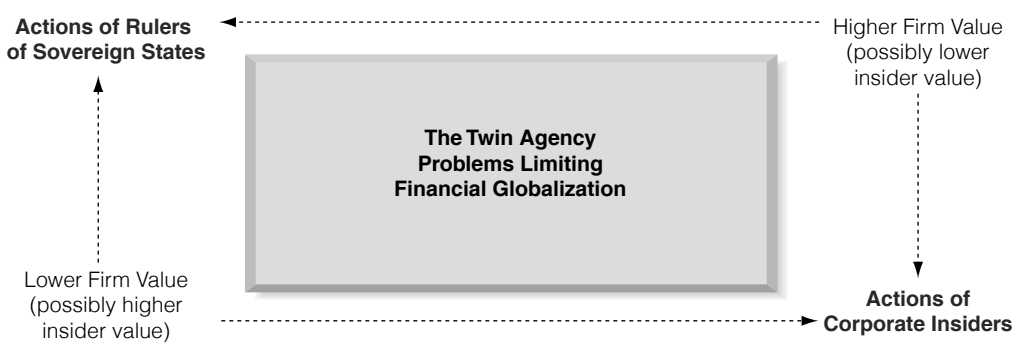
Country / Region	Currency	Earnings (millions)	Avg Exchange Rate for Year	Earnings (millions US$)	Percent of Total
United States	U.S. dollar ($)	$28.6		$28.6	56%
Europe	European euro (€)	$10.5	$1.12 = €1.00	$11.8	23%
China	Chinese renminbi (¥)	$71.4	¥6.60 = $1.00	$10.8	21%
				$51.2	100%

* 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

Corporate Responsibility and Corporate Sustainability

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
—Brundtland Report, 1987, p. 54.

What is the purpose of the corporation? It is accepted that the purpose of the corporation is to certainly create profits and value for its stakeholders, but the responsibility of the corporation is to do so in a way that inflicts no costs on society, including the environment. As a result of globalization, this growing responsibility and role of the corporation in society has added a level of complexity to the leadership challenges faced by the multinational firm.

This developing controversy has been somewhat hampered to date by conflicting terms and labels—corporate goodness, corporate responsibility, corporate social responsibility (CSR), corporate philanthropy, and corporate sustainability, to list but a few. Confusion can be reduced by using a guiding principle—that sustainability is a goal, while responsibility is an obligation. It follows that the obligation of leadership in the modern multinational is to pursue profit, social development, and the environment, all along sustainable principles.

The term *sustainability* has evolved greatly within the context of global business in the past decade. A traditional primary objective of the family-owned business has been the "sustainability of the organization"—the long-term ability of the company to remain commercially viable and provide security and income for future generations. Although narrower in scope, the concept of environmental sustainability shares a common core thread—the ability of a company, a culture, or even the earth, to survive and renew over time.

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. 33.

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 Kenya[1]

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.

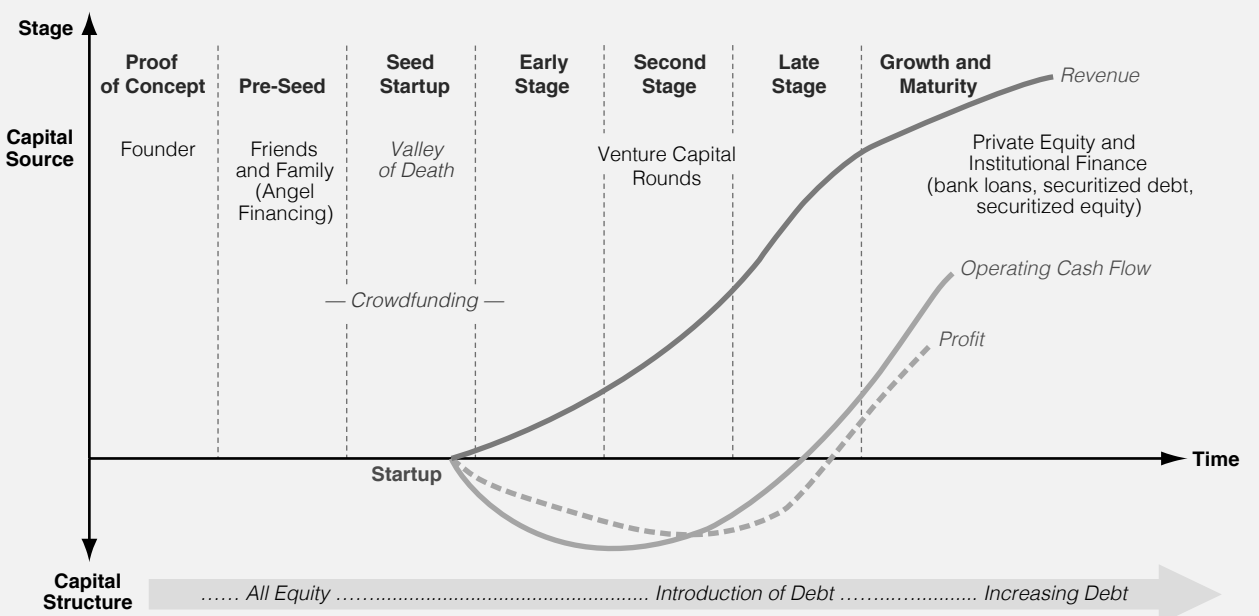
The concept of raising funds from a large crowd or group is not new. It is a technique that has been employed by individuals, organizations, and even governments for centuries. Beethoven and Mozart both raised funds for their work through pre-creation subscriptions. The United States and France both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



 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.

followed by further pre-seed capital typically funded from friends and family, or in some cases, angel financing from angel investors. Angel investors are individuals or small groups of professional investors who invest at the earliest stages of business development, playing the role of a "guardian angel." The principle is to provide the capital to move the business opportunity further along while still protecting the interests of the entrepreneurial owners. This is often referred to as the pre-seed stage of business development.

It is immediately after this, in the Seed Startup, that many firms fail to advance in their development due to a gap of available capital and capital providers. This gap, often referred to as the Valley of Death, occurs at a critical period in which the firm is building and moving toward operational launch. But without operating activities, and therefore revenues and cash flows, additional investors and access to capital is scarce. It is this gap that crowdfunding has filled in many industrial country markets.

Following their launch, promising businesses often pursue venture capital for financing rapid growth—the venture capital rounds. Venture capitalists (VCs) are investment firms focused on taking an equity position in new businesses that are showing revenue results, but may not yet be positive in terms of cash flow or profitability. VCs focus their attention on businesses that are considered to have high growth potential but need capital now to acquire the scale and assets needed to pursue the growth opportunity.

The final stage of the capital lifecycle is that of the growing and maturing company. It is only at this stage that the business possesses the track record of sales, profits, and cash flow that assure bank lenders of the creditworthiness of the firm. Bank loan-based debt is now accessible. It is also at this time that the firm may consider an initial public offering (IPO), to issue equity and raise capital in the marketplace. Firms gain access to debt—bank loans—after operations have commenced and operating cash flow capability has been demonstrated. However, debt service obligations are not desirable in rapid growth businesses trying to retain as much capital as possible during early growth stages.

If a business appears to have solid growth prospects, it may catch the eye of private equity (PE). Private equity firms invest in greater amounts at later stages of business development. PE investors provide capital to businesses that are fully established and successful, but are in need of capital for growth and business strategy fulfillment. They rarely invest in startup business, searching instead for investment opportunities that will yield higher rates of return than traditional investments in public companies.

Crowdfunding Principles

> *I believe that crowdfunding may have the potential to help catalyze existing efforts to create entrepreneurial cultures and ecosystems in developing nations. Development organizations like the World Bank and other institutions will play an ongoing role to act as "trusted third parties" in creating these new models of funding and providing mentorship, capacity building as well as ongoing monitoring and reporting.* —Steve Case, Chairman and CEO, Revolution, and Founder, America Online[2]

Crowdfunding began as an online extension of the pre-seed stage in which traditional financing relies upon friends and family to pool funds to finance business development. It seeks to connect an extended group of interested investors, still based on friends and family—the so-called *crowdfunding ecosystem*—directly with startups in need of seed capital. It attempts to open up these funding channels by bypassing the traditional regulatory and institutional barriers, restrictions, costs, and burdens, that capital raising carries in every country around the globe.

Crowdfunding structures typically fall into any one of four categories: *donation-based*, *rewards-based*, *loan* or *debt-based*, or *equity-based*.[3]

1. **Donation-based.** Non-profit foundations often employ crowdfunding methods to raise funds for causes of all kinds. Contributors receive nothing in return for their gifts other than positive emotional and intellectual gratification.
2. **Rewards-based.** In rewards-based crowdfunding efforts contributors receive a perk, a benefit, a T-shirt, a ticket, a back-stage pass, some small form of reward. One highly successful platform using this structure is Kickstarter, a U.S.-based arts and project-based fundraiser. As with donation-based funds, there is no guarantee of the project's execution or success, and no return on the investment other than a small reward, perk, or token benefit.
3. **Debt-based.** Debt-based or lending-based crowdfunding efforts provide capital to individuals and organizations in need of growth capital in return for repayment of principal. Micro-finance organizations like Grameen Bank have long used this structure successfully to fund entrepreneurial efforts particularly in emerging markets. The investor is typically promised repayment of principal, but often—as is the case of kiva.org, no payment of interest is made by the borrower or paid to the "investor."
4. **Equity-based.** Investors gain a share of ownership in the project or company. These are enterprise funding

[2] *Crowdfunding's Potential for the Developing World*, infoDev/The World Bank, by Jason Best, Sherwood Neiss, and Richard Swart, Crowdfunding Capital Advisors (CCA), 2013.

[3] "Issue Brief: Investment-Geared Crowdfunding," CFA Institute, March 2014.

efforts to support for-profit business development, the investor receiving voting rights and the possibility (but not the promise) of a return on their capital. This is an investment, not a gift, and although the investors may be drawn from interested or like-minded groups, returns on investment are expected and therefore the business plan and prospects are evaluated critically.

The last two are fundraising efforts focused on business development, and categorically referred to as *investment-geared crowdfunding* (IGCF). For longer-term sustainable market-based economies, it is category four—equity-based crowdfunding—that is thought to offer the greatest potential for economic development and employment.

Critical Requirements

There are at least three critical components to a successful equity-based crowdfunding initiative: (1) a well-defined and capable *crowdsourcing ecosystem*; (2) a defined solid business plan and competitive analysis; and (3) a motivated, capable, and committed entrepreneur.

Crowdfunding's true singular strength is the ability of a potential investment to reach an extended *crowdfunding ecosystem*—a linked crowd accessible via the Internet and therefore not limited by geography, currency, or nationality. It is based on the digital reach of the Internet via social networks and viral marketing, rather than on the traditional institutional structure of the financial and investment sectors in countries. However, given that the object of the investment is a for-profit business that is resident in a difficult-to-fund or finance marketplace, a successful ecosystem will still be defined by some commonality of experience, culture, ethnicity, or diaspora.[4] As many in the crowdfunding sector will note, when you are raising funds for a for-profit investment anywhere in the world, relationships and linkages play a critical role in moving from a token "gift for a good cause" to an investment in a business.

Secondly, a business plan must be defined. Crowdfunding is not based on the madness of crowds, but rather their strength in numbers, knowledge, and will. If enough small individual investors collectively support a startup enterprise, anywhere in the world, they can fund the development and growth of the business. But to even reach the proposal stage at which point a crowdfunding platform will entertain discussions, the entrepreneur will need to have refined a business plan. This must include prospective profitability, financial forecasts, and competitive analysis. Any business anywhere, needs a plan to generate sales, control costs, and compete if it is to eventually make a profit.

Finally, as it has been since the beginning of time, success will only come from a truly capable and committed founder—the entrepreneur. Even a business which is well-funded, well-defined, and exceptionally innovative will fail without an entrepreneur who is willing to roll up his sleeves, day after day after day, to go the extra mile (or kilometer) to achieve success. Whether that entrepreneur is named John D. Rockefeller, Bill Gates, Steve Jobs, Oprah Winfrey, J.K. Rowling, Zhang Yin, or Mark Zuckerberg, commitment, passion, and hunger for success must be ingrained in his or her DNA.

Kenyan Challenge

Kenya is not all that different from many other major emerging markets when it came to business startups: a shortage of capital, institutions, and interest in funding new business development. Funding startups, particularly SMEs, is always challenging, even in the largest and most developed industrial countries. Gaining access to affordable capital in a country like Kenya, even with a burgeoning domestic economy, is extremely difficult.

After a series of successive rounds of evaluation and competition, four crowdfunding projects were identified for a pilot program by infoDev of the World Bank Group, working through its Kenya Climate Innovation Center (KICC) with the support of Crowdfund Capital Advisors (CCA).

- **Lighting Up Kenya.** Join the Solar Generation creation in Kenya. Help us extinguish kerosene lamps and improve lives. Co-Founder of Skynotch Energy Africa, Patrick Kimathi is trying to bring clean lighting solutions (solar lamps) for off-grid indoor lighting.
- **Wanda Organic.** Nurture the Soil—Climate Smart Agriculture. Help us improve access to bio-organic fertilizer and biotechnology for farmers in Kenya. Marion Moon, founder of Wanda Organic, wants to enable Kenyan farmers to produce more, increase profitability and family income, improve nutrition, and create new employment in rural economies, while restoring and strengthening the health of Kenya's soil.
- **Briquette Energy Drive.** Biomass Briquettes are made from agricultural plant waste and are a replacement for fossil fuels, such as oil or coal, and they burn hotter, cleaner, and longer. Allan Marega is the managing director of Global Supply Solutions, whose goal is to make briquettes, the preferred replacement to charcoal and wood fuel.
- **iCoal Concepts.** James Nyaga, Director of Strategy and Innovation at iCoal Concepts, wants to use recycled charcoal dust to make briquettes that are denser, burn longer, and that are odorless and smokeless, to ultimately reduce indoor air pollution.

The Kenyan projects are among a number of pilot programs testing crowdfunding applications in emerging markets. Only time and experience will tell if crowdfunding delivers sustainable financial development for the global economy.

[4] *Crowdfunding Investing for Dummies*, Sherwood Neiss, Jason W. Best, Zak Cassady-Dorion, John Wiley & Sons, Inc., 2013.

MINI-CASE QUESTIONS

1. Where does crowdfunding fit in the capital lifecycle of business development?
2. Is crowdfunding really all that unique? What does it offer that traditional funding channels and institutions do not?
3. What is likely to differentiate successes from failures in emerging market crowdfunding programs?

Questions

These questions are available in MyFinanceLab.

1.1 Globalization Risks in Business. What are some of the risks that come with the growing globalization of business?

1.2 Globalization and the Multinational Enterprise (MNE). The term globalization has become widely used in recent years. How would you define it?

1.3 Assets, Institutions, and Linkages. Which assets play the most critical role in linking the major institutions that make up the global financial marketplace?

1.4 Currencies and Symbols. What technological innovation is changing the symbols we use in the representation of different country currencies?

1.5 Eurocurrencies and LIBOR. Why have eurocurrencies and LIBOR remained the centerpiece of the global financial marketplace for so long?

1.6 Theory of Comparative Advantage. Define and explain the theory of comparative advantage.

1.7 Limitations of Comparative Advantage. The key to understanding most theories is found in what those theories say and what they don't. Name four or five key limitations to the theory of comparative advantage.

1.8 International Financial Management. What is different about *international* financial management?

1.9 Ganado's Globalization. After reading the chapter's description of Ganado's globalization process, how would you explain the distinctions between international, multinational, and global companies?

1.10 Ganado, the MNE. At what point in the globalization process did Ganado become a multinational enterprise (MNE)?

1.11 Role of Market Imperfections. What is the role of market imperfections in the creation of opportunities for the multinational firm?

1.12 Why Go. Why do firms become multinational?

1.13 Multinational Versus International. What is the difference between an international firm and a multinational firm?

1.14 Ganado's Phases. What are the main phases that Ganado passed through as it evolved into a truly global firm? What are the advantages and disadvantages of each?

1.15 Financial Globalization. How do the motivations of individuals, both inside and outside the organization or business, define the limits of financial globalization?

Problems

These problems are available in MyFinanceLab.

1.1 Rio Games and the Brazilian Real. Ryan Lock had planned his trip to the Olympic Games in Rio de Janeiro, Brazil, for many months. He had budgeted—saved—$15,000 for expenses while in Rio. But he had postponed exchanging the dollars for Brazilian currency—*real* (BRL or R$)—until the very last minute on August 8th, doing it in the airport in the United States at BRL 3.1805 = 1.00 USD. Given the following average monthly exchange rates in 2016, when should he have exchanged the dollars for real to maximize his Brazilian spending money?

Month	BRL = 1.00 USD	Month	BRL = 1.00 USD
January	4.0553	May	3.5416
February	3.9651	June	3.4236
March	3.6984	July	3.2785
April	3.5639		

1.2 Pokémon Go. Crystal Gomez, who lives in Mexico City (as noted in the *Global Finance in Practice 1.2* in the chapter), bought 100 Pokécoins for 17 Mexican pesos (Ps or MXN). Nintendo of Japan, one of the owners of Pokémon Go, will need to convert the Mexican pesos (Ps or MXN) into its home currency, the Japanese yen, in order to record the financial proceeds. The current spot exchange rate between the Mexican peso and the U.S. dollar is 18.00 (MXN = 1.00 USD), and the current spot rate between the dollar and the Japanese yen (¥ or JPY) is 100.00. What are the yen proceeds of Crystal Gomez's purchase?

1.3 Isaac Díez. Isaac Díez Peris lives in Rio de Janeiro. While attending school in Spain he meets Juan Carlos Cordero from Guatemala. Over the summer holiday Isaac decides to visit Juan Carlos in Guatemala City

for a couple of weeks. Isaac's parents give him some spending money, R$4,500. Isaac wants to exchange it for Guatemalan quetzals (GTQ). He collects the following rates:

Spot rate on the GTQ/€ cross rate	GTQ 10.5799 = €1.00
Spot rate on the €/R$ cross rate	€0.4462 = R$1.00

a. What is the Brazilian reais/Guatemalan quetzal cross rate?
b. How many quetzals will Isaac get for his reais?

1.4 Munich to Moscow. For your post-graduation celebratory trip you decide to travel from Munich, Germany, to Moscow, Russia. You leave Munich with 15,000 euros in your wallet. Wanting to exchange all of them for Russian rubles, you obtain the following quotes:

Spot rate on the dollar/euro cross rate	$1.0644/€
Spot rate on the ruble/dollar cross rate	₽59.468/$

a. What is the Russian ruble/euro cross rate?
b. How many rubles will you obtain for your euros?

1.5 Moscow to Tokyo. After spending a week in Moscow you get an email from your friend in Japan. He can get you a very good deal on a plane ticket and wants you to meet him in Tokyo next week to continue your post-graduation celebratory trip. You have 450,000 rubles left in your money pouch. In preparation for the trip you want to exchange your Russian rubles for Japanese yen so you get the following quotes:

Spot rate on the rubles/dollar cross rate	₽30.96/$
Spot rate on the yen/dollar cross rate	¥84.02/$

a. What is the Russian ruble/yen cross rate?
b. How many yen will you obtain for your rubles?

1.6 Chantal DuBois in Brussels. Chantal DuBois lives in Brussels. She can buy a U.S. dollar for €0.7600. Christopher Keller, living in New York City, can buy a euro for $1.3200. What is the foreign exchange rate between the dollar and the euro?

1.7 Mexico's Cada Seis Años. Mexico was famous—or infamous—or many years for having two things every six years (*cada seis años* in Spanish): a presidential election and a currency devaluation. This was the case in 1976, 1982, 1988, and 1994. In its last devaluation on December 20, 1994, the value of the Mexican peso (Ps) was officially changed from Ps3.30/$ to Ps5.50/$. What was the percentage devaluation?

1.8 Kyle's Competing Job Offers. Kyle, after an arduous post-graduation job search, has received an offer of the following three different country posts with a major multinational company. Each of the three countries—the United Kingdom, the Czech Republic, and France—offer different starting salaries and different signing bonuses, but in different currencies. Kyle wants to first compare all of the compensation packages in a common currency, the U.S. dollar. Use the data at the bottom of this page to determine which offer represents the greatest initial U.S. dollar compensation package.

1.9 Comparing Cheap Dates Around the World. Comparison of prices or costs across different country and currency environments requires translation of the local currency into a single common currency. This is most meaningful when the comparison is for the identical or near-identical product or service across countries. Deutsche Bank has recently started publishing a comparison of cheap dates—an evening on the town for two to eat at McDonald's, see a movie, and drink a beer. Once all costs are converted to a common currency, the U.S. dollar in this case, the cost of the date can be compared across cities relative to the base case of a cheap date in USD in New York City.

After completing the table on the next page, answer the following questions.

a. Which city in the table truly offers the cheapest date?
b. Which city in the table offers the most expensive cheap date?
c. If the exchange rate in Moscow on the Russian ruble (RUB) was 0.04200, instead of 0.0283, what would be the USD price?
d. If the exchange rate in Shanghai was CNY 6.66 = 1 USD, what would be its cost in USD and relative to a cheap date in New York City?

Problem 1.8

Country	ISO	Currency	Salary	Signing Bonus	Currency = $1.00
United Kingdom	GBP	pounds (£)	£73,000.00	£20,000.00	0.7000
Czech Republic	CZK	koruna (Kč)	1,850,000.00 Kč	325,000.00 Kč	24.35
France	EUR	euros (€)	€ 83,000.00	€ 17,000.00	0.9000

Problem 1.9

Country and region	City	Cheap Date in Local Currency	Exchange Rate Quote	Exchange Rate 7 April 2014	In USD	Relative to NYC
Australia	Sydney	AUD 111.96	USD = 1 AUD	0.9290	_____	____%
Brazil	Rio de Janeiro	BRL 135.43	USD = 1 BRL	0.4363	_____	____%
Canada	Ottawa	CAD 78.33	USD = 1 CAD	0.9106	_____	____%
China	Shanghai	CNY 373.87	USD = 1 CNY	0.1619	_____	____%
France	Paris	EUR 75.57	USD = 1 EUR	1.3702	_____	____%
Germany	Berlin	EUR 76.49	USD = 1 EUR	1.3702	_____	____%
Hong Kong China	Hong Kong	HKD 467.03	USD = 1 HKD	0.1289	_____	____%
India	Mumbai	INR 1,379.64	USD = 1 INR	0.0167	_____	____%
Indonesia	Jakarta	IDR 314,700	USD = 1 IDR	0.0001	_____	____%
Japan	Tokyo	JPY 10,269.07	USD = 1 JPY	0.0097	_____	____%
Malaysia	Kuala Lumpur	MYR 117.85	USD = 1 MYR	0.3048	_____	____%
Mexico	Mexico City	MXN 423.93	USD = 1 MXN	0.0769	_____	____%
New Zealand	Auckland	NZD 111.52	USD = 1 NZD	0.8595	_____	____%
Philippines	Manila	PHP 1,182.88	USD = 1 PHP	0.0222	_____	____%
Russia	Moscow	RUB 2,451.24	USD = 1 RUB	0.0283	_____	____%
Singapore	Singapore	SGD 77.89	USD = 1 SGD	0.7939	_____	____%
South Africa	Cape Town	ZAR 388.58	USD = 1 ZAR	0.0946	_____	____%
United Kingdom	London	GBP 73.29	USD = 1 GBP	1.6566	_____	____%
United States	New York City	USD 93.20	1 USD	1.0000	_____	____%
United States	San Francisco	USD 88.72	1 USD	1.0000	_____	____%

Source: Data drawn from *The Random Walk, Mapping the World's Prices 2014*, Deutsche Bank Research, 09 May 2014, Figures 30 and 32, with author calculations. 'Relative to NYC' is calculated as = Cheap Date in USD/93.20.
Note: The *cheap date* combines the local currency cost of a cab ride for two, two McDonald's hamburgers, two soft drinks, two movie tickets, and two beers. In 2013 Deutsche Bank had included sending a bouquet of roses in the date, but did not include that in the 2014 index, making the two years not directly comparable.

1.10 Blundell Biotech. Blundell Biotech is a U.S.-based biotechnology company with operations and earnings in a number of foreign countries. The company's profits by subsidiary, in local currency (in millions), are shown in the following table for 2013 and 2014.

The average exchange rate for each year, by currency pairs, was the following. Use this data to answer the following questions.

a. What were Blundell Biotech's consolidated profits in U.S. dollars in 2013 and 2014?
b. If the same exchange rates were used for both years—what is often called a "constant currency basis"—was the change in corporate earnings on a constant currency basis?
c. Using the results of the constant currency analysis in part b, is it possible to separate Blundell's growth in earnings between local currency earnings and foreign exchange rate impacts on a consolidated basis?

Net Income	Japanese Subsidiary	British Subsidiary	European Subsidiary	Chinese Subsidiary	Russian Subsidiary	United States Subsidiary
2013	JPY 1,500	GBP 100.00	EUR 204.00	CNY 168.00	RUB 124.00	USD 360.00
2014	JPY 1,460	GBP 106.40	EUR 208.00	CNY 194.00	RUB 116.00	USD 382.00

Exchange Rate	JPY = 1 USD	USD = 1 GBP	USD = 1 EUR	CNY = 1 USD	RUB = 1 USD	USD
2013	97.57	1.5646	1.3286	6.1484	31.86	1.0000
2014	105.88	1.6473	1.3288	6.1612	38.62	1.0000

Problem 1.11
Fixed Rmb Pricing of the PT350 Plasma Cutting Torch

Year	Cost (Rmb)	Margin (Rmb)	Price (Rmb)	Margin (percent)	Average Rate (Rmb/US$)	Price (US$)	Percent Chg in US$ Price
2007	16,000	2,000	18,000	11.1%	7.61	2,365	—
2008	15,400	_____	_____	_____	6.95	_____	_____
2009	14,800	_____	_____	_____	6.83	_____	_____
2010	14,700	_____	_____	_____	6.77	_____	_____
2011	14,200	_____	_____	_____	6.46	_____	_____
2012	14,400	_____	_____	_____	6.31	_____	_____
2013	14,600	_____	_____	_____	6.15	_____	_____
2014	14,800	_____	_____	_____	6.16	_____	_____
Cumulative							_____

1.11 Peng Plasma Pricing. Peng Plasma is a privately held Chinese business. It specializes in the manufacture of plasma cutting torches. Over the past eight years it has held the Chinese renminbi price of the PT350 cutting torch fixed at Rmb 18,000 per unit. Over that same period it has worked to reduce costs per unit, but has struggled of late due to higher input costs. Over that same period the renminbi has continued to be revalued against the U.S. dollar by the Chinese government. After completing the table—assuming the same price in renminbi for all years—answer the following questions.

a. What has been the impact of Peng's pricing strategy on the US$ price? How would you expect their U.S. dollar-based customers to have reacted to this?
b. What has been the impact on Peng's margins from this pricing strategy?

1.12 Santiago Pirolta's Compensation Agreement. Santiago Pirolta has accepted the Managing Director position for Vitro de Mexico's U.S. operations. Vitro is a Mexico-based manufacturer of flat and custom glass products. Much of its U.S. sales are based on a variety of bottle products, both mass market (e.g., glass bottles for soft drinks and beer) as well as specialty products (high-end cosmetic bottles with rare metal coloring and quality). Santiago will live and work in the United States (Dallas, Texas) and wishes to be paid in U.S. dollars. Vitro has agreed that his base salary of USD350,000 will be paid in U.S. dollars, but Vitro wishes to tie his annual performance bonus (potentially 10% to 30% above his base salary) to the Mexican peso value of U.S. sales since Vitro consolidates all final results for reporting to stockholders in Mexican pesos (MXN).

Santiago, however, is a bit uncertain about having his bonus based on the Mexican peso values of U.S. sales. As a close friend and colleague, what advice would you give him based on your completion of the table below?

Year	(million USD)	Change	MXN = 1 USD	(million MXN)	Change
2011	USD 820		12.80	MXN _____	
2012	USD 842	____%	13.30	MXN _____	____%
2013	USD 845	____%	12.70	MXN _____	____%
2014	USD 860	____%	13.40	MXN _____	____%

Americo Industries–2010

Problems 1.13–1.17 are based on Americo Industries. Americo is a U.S.-based multinational manufacturing firm with wholly owned subsidiaries in Brazil, Germany, and China, in addition to domestic operations in the United States. Americo is traded on the NASDAQ. Americo currently has 650,000 shares outstanding. The basic operating characteristics of the various business units are shown in the following table:

Problems 1.13—1.17 Business Performance (000s)	U.S. Parent (US$)	Brazilian Subsidiary (reais, R$)	German Subsidiary (euros, €)	Chinese Subsidiary (yuan, ¥)
Earnings before taxes (EBT)	$4,500	R$6,250	€4,500	¥2,500
Corporate income tax rate	35%	25%	40%	30%
Average exchange rate for the period	—	R$1.80/$	€0.7018/$	¥7.750/$

1.13 Americo Industries' Consolidate Earnings. Americo must pay corporate income tax in each country in which it currently has operations.
a. After deducting taxes in each country, what are Americo's consolidated earnings and consolidated earnings per share in U.S. dollars?
b. What proportion of Americo's consolidated earnings arise from each individual country?
c. What proportion of Americo's consolidated earnings arise from outside the United States?

1.14 Americo's EPS Sensitivity to Exchange Rates (A). Assume a major political crisis wracks Brazil, first affecting the value of the Brazilian reais and, subsequently, inducing an economic recession within the country. What would be the impact on Americo's consolidated EPS if the Brazilian reais were to fall in value to R$3.00/$, with all other earnings and exchange rates remaining the same?

1.15 Americo's EPS Sensitivity to Exchange Rates (B). Assume a major political crisis wracks Brazil, first affecting the value of the Brazilian reais and, subsequently, inducing an economic recession within the country. What would be the impact on Americo's consolidated EPS if, in addition to the fall in the value of the reais to R$3.00/$, earnings before taxes in Brazil fell as a result of the recession to R$5,800,000?

1.16 Americo's Earnings and the Fall of the Dollar. The dollar has experienced significant swings in value against most of the world's currencies in recent years.
a. What would be the impact on Americo's consolidated EPS if all foreign currencies were to appreciate 20% against the U.S. dollar?
b. What would be the impact on Americo's consolidated EPS if all foreign currencies were to depreciate 20% against the U.S. dollar?

1.17 Americo's Earnings and Global Taxation. All MNEs attempt to minimize their global tax liabilities. Return to the original set of baseline assumptions and answer the following questions regarding Americo's global tax liabilities:
a. What is the total amount—in U.S. dollars—that Americo is paying across its global business in corporate income taxes?
b. What is Americo's effective tax rate (total taxes paid as a proportion of pre-tax profit)?
c. What would be the impact on Americo's EPS and global effective tax rate if Germany instituted a corporate tax reduction to 28%, and Americo's earnings before tax in Germany rose to €5,000,000?

Internet Exercises

1.1 International Capital Flows: Public and Private. Major multinational organizations attempt to track the relative movements and magnitudes of global capital investment. Using the following Web pages and others you may find, prepare a two-page executive briefing on the question of whether capital generated in the industrialized countries is finding its way to the less-developed and emerging markets. Is there some critical distinction between "less-developed" and "emerging"?

The World Bank	www.worldbank.org
OECD	www.oecd.org
European Bank for Reconstruction and Development	www.ebrd.org

1.2 External Debt. The World Bank regularly compiles and analyzes the external debt of all countries globally. As part of their annual publication on World Development Indicators (WDI), they provide summaries of the long-term and short-term external debt obligations of selected countries online like that of Poland shown here. Go to their Web site and find the decomposition of external debt for Brazil, Mexico, and the Russian Federation.

The World Bank	www.worldbank.org/data

1.3 World Economic Outlook. The International Monetary Fund (IMF) regularly publishes its assessment of the prospects for the world economy. Choose a country of interest and use the IMF's current analysis to form your own expectations of its immediate economic prospects.

IMF Economic Outlook	www.imf.org/external/index.htm

1.4 *Financial Times* Currency Global Macromaps. The *Financial Times* provides a very helpful real-time global map of currency values and movements online. Use it to track the movements in currency.

Financial Times	http://markets.ft.com/research/Markets/Currencies