

GLOBAL CORPORATE FINANCE

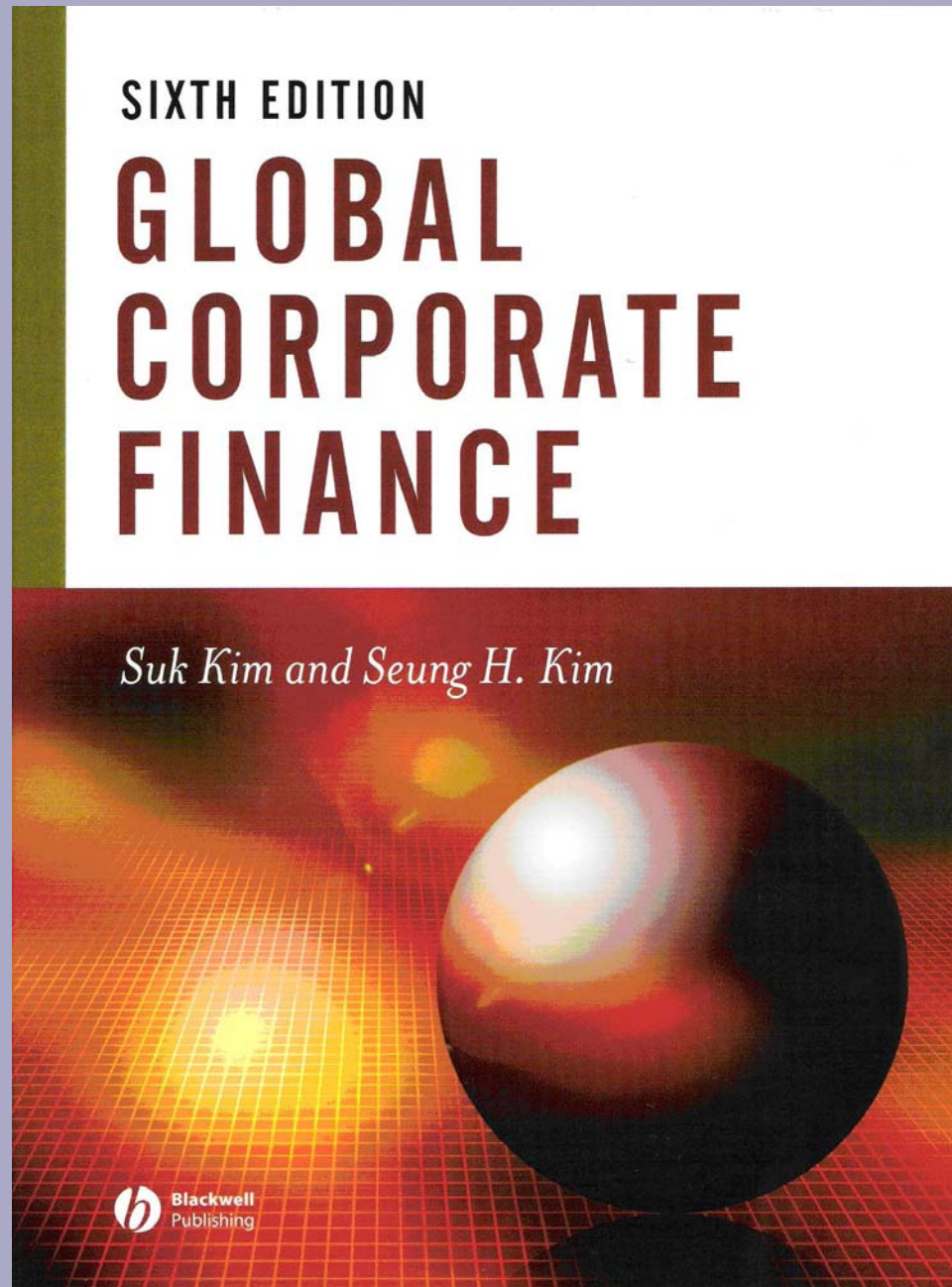
(200 Colleges adapted this text book)

Suk Kim and Seung Kim

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Slides by Hassan Moussawi, M.B.A., Ph.D.



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- This presentation has been thoroughly revised to more lecture oriented slides, as well as examples.
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MBA454 / EMBA615 / BUS435

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About Us

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- Professor Kim teaches international finance. He has authorized and coauthored 14 finance textbooks and 60 referred journal publications. According to an article by Allen Morrison and Andrew Inkpen (Journal of International Business Studies, 1st Quarter 1991), Kim was among the top 25 international business researchers in the 1980s.
- He was a Fulbright scholar of international finance at Yonsei University in Seoul, Korea during 1992. Kim is editor of Multinational Business Review and serves on a number of academic journals. He received his M.B.A. from Pepperdine University and his Ph.D. in Finance from St. Louis University. He joined the University in 1977.
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About Us

- **Seung Kim**, Ph.D., Paul G. Lorenzini Endowed Professor in International Business, is Director of the Boeing Institute of International Business at St. Louis University.
- Professor Kim has authored or coauthored seven books and 30 refereed journal publications. Professor Kim received an outstanding teacher award at school of Business and Administration, St. Louis University.
- Professor Kim has served as a consultant for multinational companies and international banks, and on the boards of the following organizations: The Missouri District Export Council, appointed by the US commerce Secretary; the state of Missouri Governor's Office; the World Trade Center of St. Louis; and the World Affairs Council of St. Louis.
- Professor Kim attended the Seoul National University Law School, and received his M.B.A. and Ph.D. from New York University.
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About Us

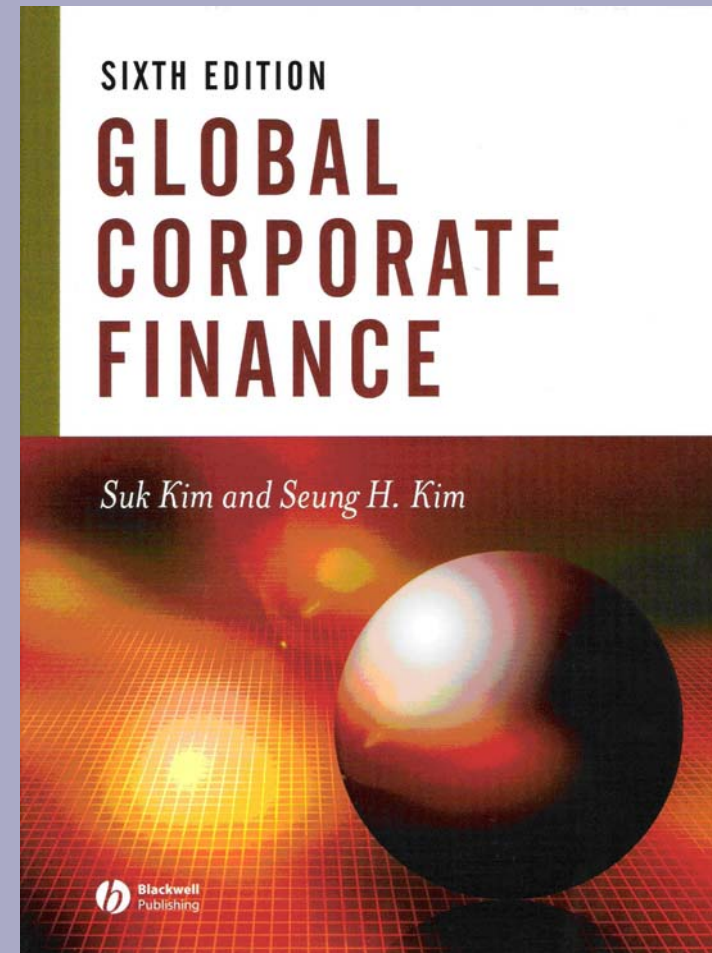
- **Hassan Moussawi**, M.B.A., Ph.D., **Adjunct Professor of Finance**, College of Business Administration, University of Detroit Mercy . Professor Moussawi teaches Financial Management, Corporate Finance, Global Corporate Finance, and Global Financial Environment to Undergraduate, Graduate and Executive Graduate students.
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- Dr. Moussawi joined Michigan State University as a Research Associate from 1988-1992. Form 1992–Now he works at Ford Motor Company (Global C3PNG Business Integration) as Product Data Management Engineer.
- Dr. Moussawi has seventeen publications in the field of Engineering, and two unpolished reports in Financial Analysis and Marketing Plan, and five publications (TBD) in field of Finance.
- Dr. Moussawi received his Ph.D. in Civil Engineering, M.S. in Civil Engineering and M.S. in Engineering Mechanics from Michigan State University. He received his M.B.A. from University of Detroit Mercy. He joined University of Detroit Mercy as Adjunct Professor of Finance in 2005.
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CHAPTER - 1

INTRODUCTION



Chapter 1 Major Sections

- **Section 1, reasons to study international finance**
- **Section 2, primary goal of MNC and function of financial manager**
- **Section 3, analysis MNC's and their performance**
- **Section 4, principle of global finance**
- **Section 5, two major constraints that impede an MNC's a) cost and b) environmental differences**
- **Last section, gives overview of the book.**

GLOBAL FINANCE

● Opening Case 1

- **TIAA-CREF** (Teachers Insurance and Annuity Association – College Retirement Equity Fund) **Goes with Corporate Governance**
 - Net Assets \$200 Billion
 - Stock of international companies
 - Western Europe (30 countries)
 - **Corporate Governance** (Executive incentives , Accounting and Audits, Board of directors, Investment banks, Financial Analysis, Credit Rating Agencies, The Security and Exchange Commission (SEC), and Shareholder Activism)

● Globalization

- **Global Finance in Action 1.1** (Have the September 11, 2001, Attacks Ended Globalization?)
- **Globalization** stands for the idea of integrating the world market place, creating a so called “borderless world” for goods and services.
 - **Communication**; mail, telephone, Internet, airline, and ocean shipping
 - **Entertainment**; film, TV, music, news, and sport
 - **Economic and business exchange**; banking, insurance, foreign exchange, stock markets, and reciprocal trade
 - **Idea and competing spiritual values** through Evangelical Christianity, Islam and Others

REASONS TO STUDY INTERNATIONAL FINANCE

- **To understand a global economy in terms of:**
 - **The end of cold war** (1991 break up of Soviet Union to 15 independent States)
 - **Emerging of growing Industrialization and market among the developing countries of:**
 - East Asia (Hong Kong, Singapore, S. Korea, and Taiwan) and
 - Latin America (Argentina, Brazil, Chile, Mexico and Venezuela)
 - China and others will follow
 - Mexico and S. Korea member of OECD “the rich man’s club”
 - OECD = Organization for Economic Corporation and development
 - **Increased globalization** of the international economy
 - Coca Cola, Dow Chemical, Exxon Mobile, Daimler Chrysler, Hewlett Packard, IBM, Johnson and Johnson, and McDonald's earn more than 50% of operating profits through international operations
- **To understand the effect of global finance on business**
 - Action 1.1 / 9/11 attack /Survey showed that companies commitments to international expansion rose
- **To make intelligent personal decisions**
 - Job, Buying car, Vacation, Retirement (stock and exchange rate) {Domestic vs. international}

COMPANY GOALS AND FUNCTIONS OF FINANCIAL MANAGEMENT

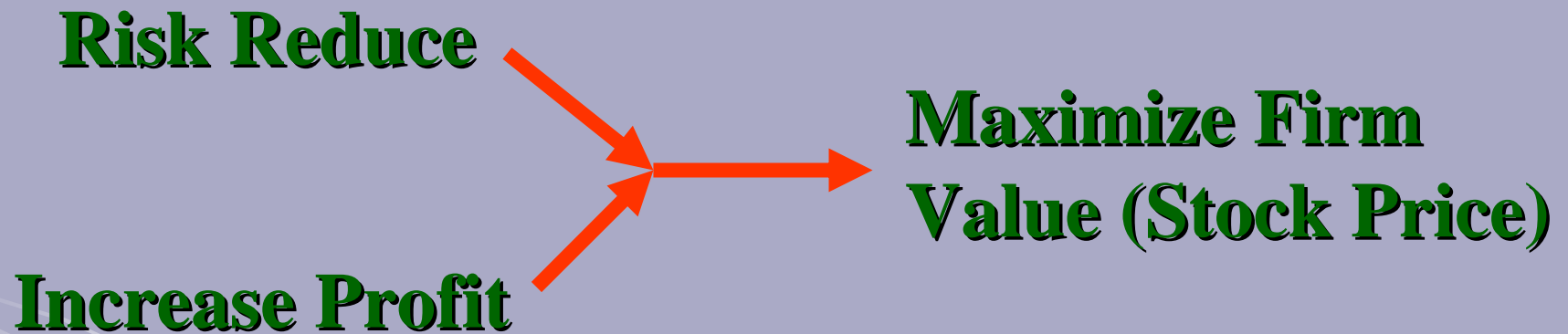
- **Multinational company goals**

- To maximize stockholder wealth (stock price) on a global basis
- MNC Constitutes: stockholders, employee, customers, creditors, suppliers and local community
- Managers focus on stockholder wealth because; stockholders are the owners, stockholders provide the risk capital that protect the welfare of other constitutes, and enhance shareholders value, attract additional equity capital
- Corporate wealth is stockholder, marketing, technical and human recourses wealth.

- **Functions of international financial manager:**

- Financial planning and control (Performa vs. actual Balance Sheet, Income Statement and Cash flow)
- Allocation of funds (investment or where to invest)
- Acquisition of funds (financing) (If $CF_{outflow} > CF_{inflow}$ manager must obtain additional funds)

PRIMARY GOAL OF A FIRM



MULTINATIONAL COMPANIES AND THEIR PERFORMANCE

- **What is a multinational corporation (MNC)?**
 - **The world book Encyclopedia: a business organization that produces a products, sells a product, and provides a services in two or more countries**
- **From multinational company to global company**
 - **1) Have a world wide presence in its market, 2) Integrate its operation world wide and 3) Standardize operations in one or more of the company's functional area**
- **Global Finance in Action 1.2 (Is Globalization Myth or Reality?)**
- **Ability to transfer information and knowledge globally**
 - **Globalization exists because bits and bytes – that is, process knowledge and other intangible assets – can be transferred globally at minimal costs. The results is greater integrated trade flows.**
- **The performance of multinational companies**
 - **MNCs have performed better than domestic performs due to: Higher risk-return tradeoff , Market imperfections, Portfolio effect, Comparative advantage, Internationalization advantages, Larger economies of scale and Larger valuation**

PRINCIPLES of GLOBAL FINANCE

The Financial Manager Major Function

- 1.Foreign Investment: direct and portfolio**
 - 2.Foreign Trade: exports and imports**
 - 3.Foreign Loan**
- 

PRINCIPLES of GLOBAL FINANCE

Seven important principles of global finance

1. The risk-return trade-off (maximizing of stockholder wealth depends on)

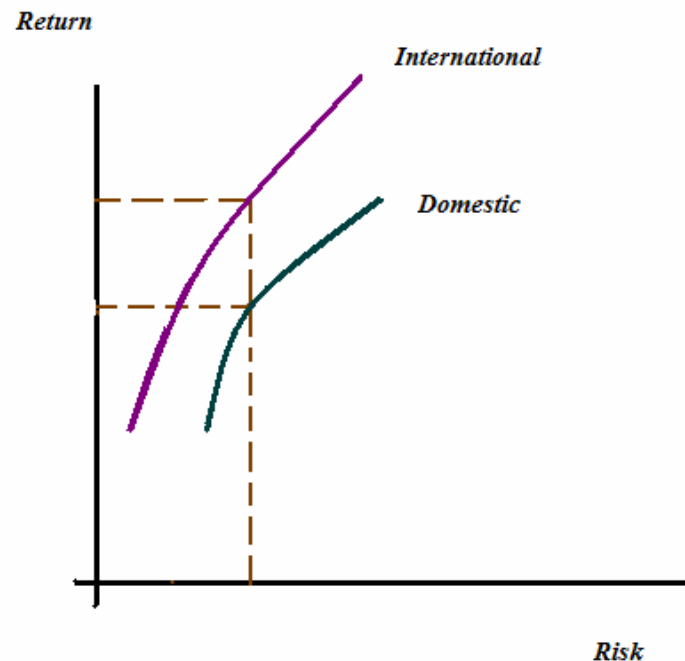


Figure 1.2 Expanded opportunity set for International Business

PRINCIPLES of GLOBAL FINANCE

- 2. Market imperfections** (The real world has imperfect market conditions, where the resources (land, capital and technology) available for production of goods are somewhat immobile, example Toyota plants in US to avoid trade restriction)
- 3. The portfolio effect** (diversify their operation not only across industries but also across countries and currencies)
- 4. Comparative advantage** (trade between the two countries – The USA exporting software and China exporting shoes – can boost living standards in both)
- 5. The internationalization advantage** (MNC advantages depends on location, ownership and internationalization. Internationalization like Exxon Mobile uses its technology to build oil refineries in Venezuela. These refineries magnified both wages of workers in Venezuela and profits of Exxon Mobil)
- 6. Economies of scale** (a reduction in average cost per unit as sales volume or output increases)
- 7. Valuation** (The value of an asset is equal to the present value of its expected earnings. The value of MNC is higher than the value of Domestic company for: MNC's earns more profits and earnings of larger company are capitalized at lower rate {The securities of MNC have better marketability than domestic})

AGENCY THEORY


- **Agency theory: deals with the conflict of interest between managers and stockholders**
- **MNC's value is subject to larger agency cost**
 - **Agency costs (include incentives and monitoring costs)**
 - **Incentives (could include stock options, bonuses and perquisites {privilege})**
 - **Monitoring (Reviewing management perquisites, auditing financial statements and limiting management decisions)**
 - **Agency costs are larger for MNC than purely Domestic companies**

CORPORATE GOVERNANCE

Corporate governance refers to the way in which major stakeholders exerts control over operations of a company

- Shareholder activism (shareholders proposal for Proxy fight, direct negotiation with management and public targeting of a corporation)**
- Changes in the US corporate governance (the threat of hostile take over, stock options for managers, increase in shareholder activism and recent accounting scandals)**
- National Differences in corporate governance laws for corporate governance have notable differences (UK and USA) model vs. (Continental Europe {France and Germany} and Japan model). (market oriented financial system vs. representative of bank or relationship-based system. i.e institutional investors vs. banks in financial system)**

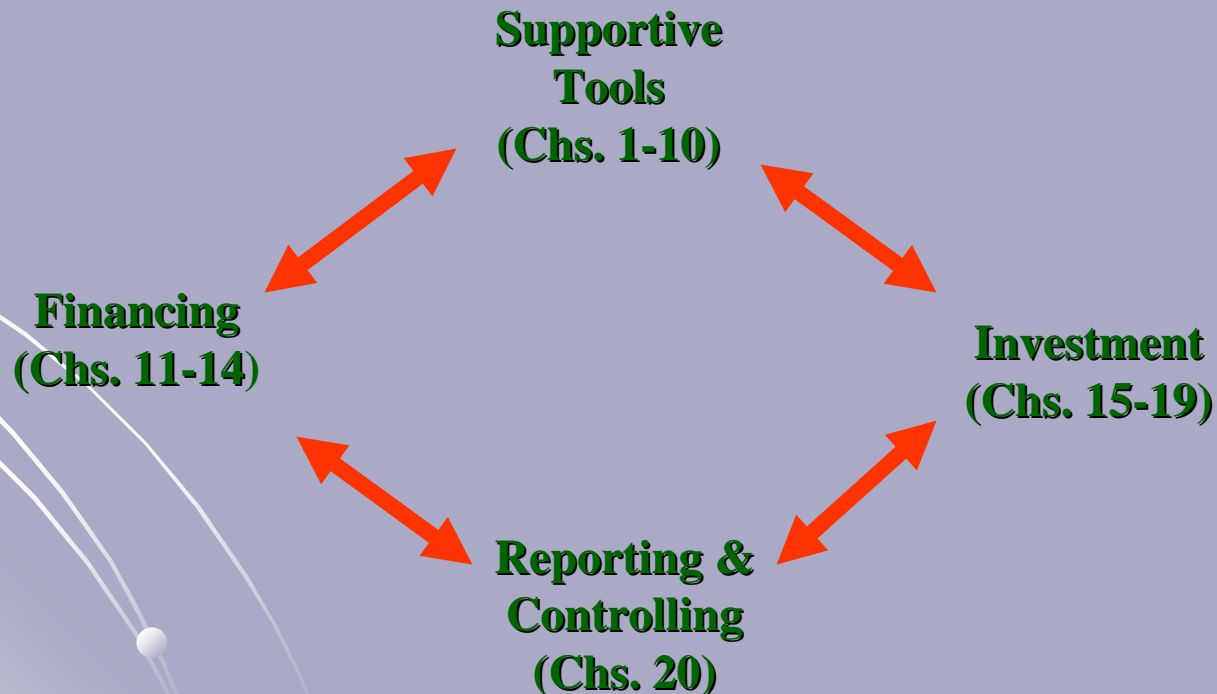
ENVIRONMENTAL DIFFERENCES

- **Types of risk (politic, financial, and regulatory)**
 - **Conflicts of interest (employee, supplier and customers may have different national identities)**
 - **Multiple environments (MNCs can have operational problems because they operate in several international environment)**
- 

THE STRUCTURE of THIS BOOK

Function of financial managements is to maximize the stoke

- **Financial Planning and Control: Supportive Tools and Reporting & Controlling**
- **Financing**
- **Investment**



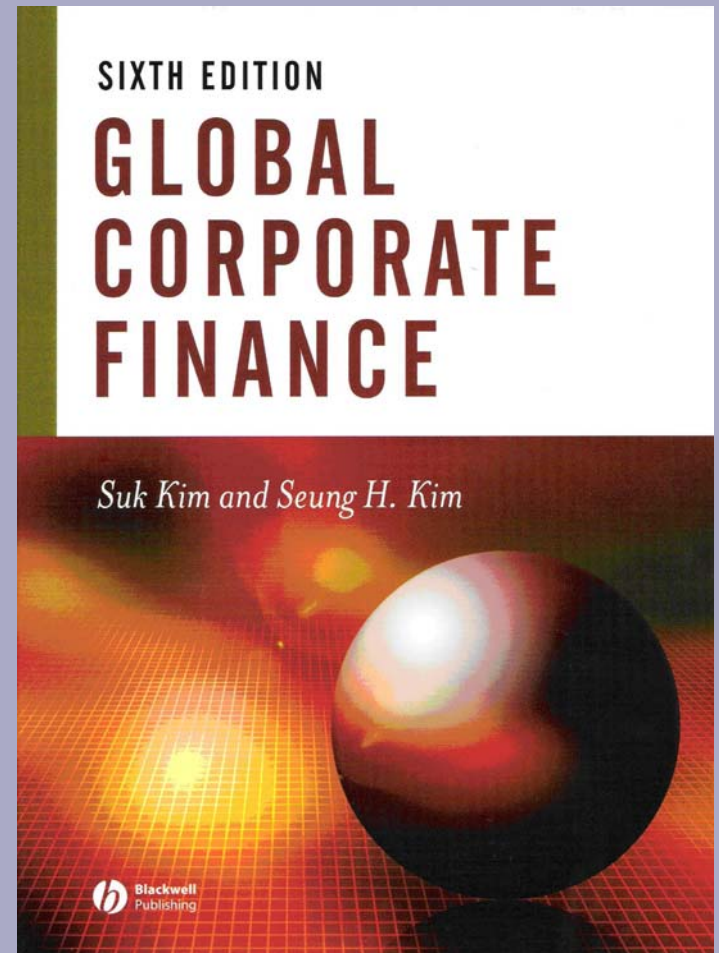
INTERNET EXERCISES



- Visit the website of Corporate Governance <<http://www.corpgov.net>> to view recent developments on the relationship between a corporation's management and its stakeholders. In light of recent accounting scandals in corporate America, list three proposed solutions to fix corporate governance practices.
- Visit the website of the European Corporate Governance Institute <<http://www.ecgi.org>> to view codes and principals of corporate governance for European countries. Choose a country or region and list five principals and /or recommendations on corporate governance. Explain how these European practices are similar to or different from existing practices in the US.
- Select one country of your choice from the "County At-A-Glance" table of the World Bank <<http://www.worldbank.org>> to answer the following questions: What is the population? What is the currency? What is the GNI per capita? How has the GDP changed in the past three years? Is this country a net importer or exporter? How much is the trade in goods as a share of GDP? What is the amount of foreign direct investment?

CHAPTER - 2

MOTIVES FOR WORLD TRADE AND FOREIGN INVESTMENT



Chapter 2 Major Sections

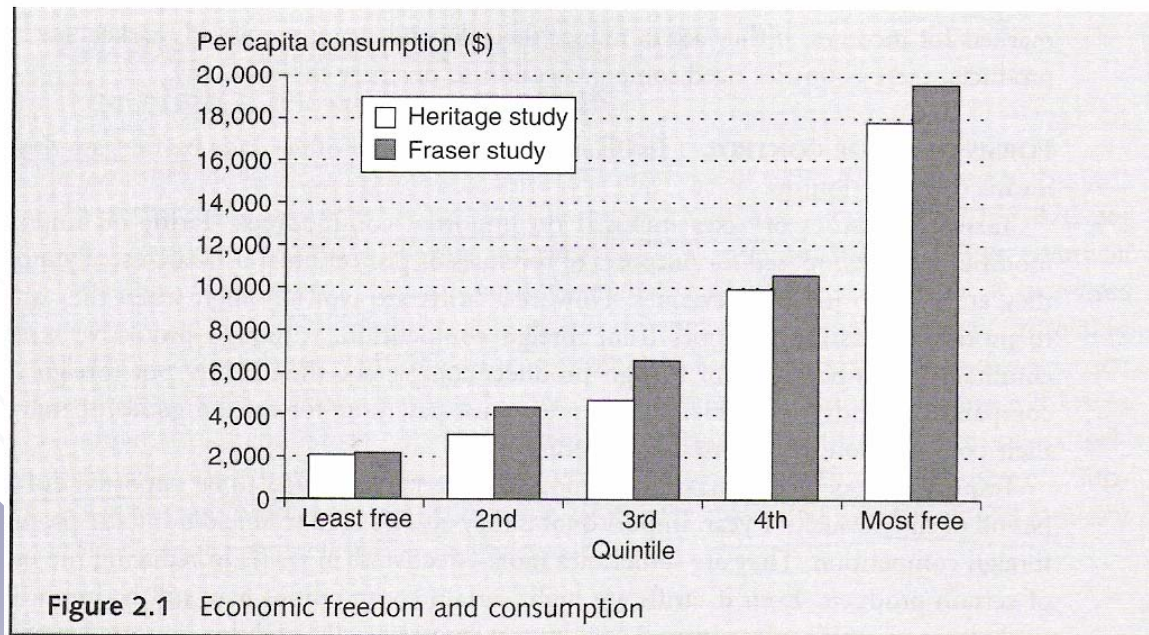
- **Section 1, motive for foreign Trade**
 - **Section 2, economic integration**
 - **Section 3, motive for foreign investment**
 - **Section 4, a synthesis of foreign trade and investment theories**
- 

GLOBAL FINANCE

- **Opening Case 2; The Effect of Foreign Investment on Exports**
 - **1994 North-America-Free-Trade Agreement (NAFTA) extends the areas of FDI (Foreign Direct Investment)**
 - **Mexico in 1989 liberalized its foreign investment regulations to allow 100% foreign ownership**
 - **International investment flows can boost efficiency and the flow of information across borders**
- 

GLOBALIZATION

- **Global Finance in Action 2.1 (Economic Freedom and Consumption)**
- **Two research group, the Heritage Foundation in Washington DC and Fraser Institute in Canada relates the consumption to freedom. “Per capita consumption in the economically freest fifth countries is 8 to 9 times that of the least free fifth. Figure 2.1”**



MOTIVES FOR WORLD TRADE AND FOREIGN INVESTMENT

TRADE THEORIES

- u. Comparative Advantage
- v. Factor Endowment
- w. Product Life Cycle

INVESTMENT THEORIES

- x. Product Life Cycle
- y. Portfolio Theory
- z. Oligopoly



The diagram illustrates the relationship between trade and investment theories. Two yellow boxes at the top contain 'TRADE THEORIES' and 'INVESTMENT THEORIES' respectively. Red arrows from both boxes point down and then inward to a central green text 'Eclectic Theory'. A decorative graphic on the left side of the slide features a purple gradient background with several white dots and curved lines.

Eclectic Theory

MOTIVE FOR FOREIGN TRADE

- Countries gain from trade by producing products they have a **(comparative advantage)**.
- Countries gain from specializing in the production and export of any good that uses larger amounts of their **own abundant factors (factor endowments)**.
- Explain trade patterns on the basis of stages in a **(product's life cycle)**.

MOTIVE FOR FOREIGN TRADE

- **The theory of comparative advantage**
 - assumes that all countries are better off if each specializes in the production of those goods that it can produce more efficiently and buy those goods that other countries produce more efficiently
 - Factors of production: land, labor, capital and technology
 - Efficient production of various goods and services requires combinations of different economic resources and different technologies
- **The theory of factor endowments**
 - Says that countries are mutually benefited if they specialized in the production of those goods that use a large amount of abundant factors and trade those goods among them
- **The product life cycle theory**
 - attempts to explain both world trade and foreign investment patterns on the basis of 4 stages in a product life {introducing new product by domestic company, begins to produce product in some foreign countries (less traffic), foreign companies begin to compete in third country market, and foreign companies export back to home country}
- **Other motive for world trade**
 - economic of scale: the whole is worth more than the sum off its parts “ $2+2 = 5$ ”,
 - different interest Japanese prefer fish, Canadian prefer meat

BENEFITS OF OPEN TRADE

- **Allocation efficiency** is obtained because MNCs devote more of their resources to producing those products with a comparative advantage. (import goods produce more efficiency abroad, export those goods produce more cheaply at home)
- **Increased competition** stimulates efficiency and growth.
- **Production efficiency** is obtained because foreign trade stimulates the flow of new ideas and information across borders.
- **Expanded menu of goods and services** available to both producers and consumers.

FREE TRADE VERSUS PROTECTIONISM

Reasons for protectionism include

- **national security**
 - If a country wishes to be a world power, it must maintain key sectors
- **unfair competition**
 - Labor – intensive industries in developed countries argue that low wages in foreign country constitute unfair competition
- **infant industry argument**
 - Protective measure are essential for newly begun domestic industries to establish themselves
- **domestic employment**
 - Maintain domestic employment and living standards
- **diversification**
 - Highly specialized economies {Kuwait's Oil Company} need some protection to diversify economy

FREE TRADE VERSUS PROTECTIONISM

- **Forms of protectionism are:**
 - **Tariffs** (Duties or taxes imposed on imported commodities)
 - **Import quotas** (specify maximum amounts of certain products to be imported during a given periods of time, usually 1 year)
 - **Other trade barriers**
 - Direct government participation in trade
 - Customer and other administration procedures
 - Technical and health regulations or standards

GLOBAL FINANCE

Global Finance in Action 2.2 and table 2.3 (The High Cost of Protectionism)

- How much does it cost to protect a job?

- From \$1,376,435 (Benzenoid Chemical) to \$132,870 (Custume Jewelry)

- It increases not just the cost of the protected items but downstream products as well

- Example: protecting sugar raises candy and soft drink price

Table 2.3 The cost of protectionism

Protected industry	Jobs saved	Total cost (in millions)	Annual cost per job saved
1 Benzenoid chemicals	216	\$297	\$1,376,435
2 Luggage	226	290	1,285,078
3 Softwood lumber	605	632	1,044,271
4 Sugar	2,261	1,868	826,104
5 Polyethylene resins	298	242	812,928
6 Dairy products	2,378	1,630	685,323
7 Frozen concentrated orange juice	609	387	635,103
8 Ball bearings	146	88	603,368
9 Maritime services	4,411	2,522	571,668
10 Ceramic tiles	347	191	551,367
11 Machine tools	1,556	746	479,452
12 Ceramic articles	418	140	335,876
13 Women's handbags	773	204	263,535
14 Canned tuna	390	100	257,640
15 Glassware	1,477	366	247,889
16 Apparel and textiles	168,786	33,629	199,241
17 Peanuts	397	74	187,223
18 Rubber footwear	1,701	286	168,312
19 Women's nonathletic footwear	3,702	518	139,800
20 Costume jewelry	1,067	142	132,870

Source: Robert D. McTeer, Jr, *The Fruits of Free Trade: 2002 Annual Report*, Federal Reserve Bank of Dallas, 2002, p. 13.

ECONOMIC INTEGRATION

World leaders have recognized that the reduction or elimination of artificial barriers to trade is necessary for expanding world trade

- 1. World Trade Organization (WTO) replaced GATT (General Agreement on Tariffs and Trade) on January 1, 1995.**
 - **Most favored nation (MFN) clause: if a country grants a tariff reduction to one country, it must grant the same concession to all other WTO countries.**
 - **To join the WTO, countries must adhere to the most favored nation clause**
 - **WTO's 144 members, more than 97% of world trade**
 - **The WTO has five major functions:**
 - **Administering its trade agreements**
 - **Acting as a forum for the trade negotiations**
 - **Monitoring national trade policies**
 - **Offering technical assistance and training for developing countries**
 - **Cooperating with international organizations**

ECONOMIC INTEGRATION

- 2. Trading blocs:** Types of economic cooperation (Reduces intraregional barriers to trade in goods, services, investment, and capital)
- **Free trade area:** no internal tariffs (NAFTA = North American Free Trade Agreement, USA, Canada and Mexico)
 - **Customs union:** no internal tariffs and common external tariffs (Mercosur Argentina, Brazil, Paraguay and Uruguay)
 - **Common market:** customs-union features + free flow of production factors (Central American common market Cost Rica, El Salvador, Guatemala, Honduras and Nicaragua)
 - **Economic union:** common-market features with harmonization of economic policy (EEC European Economic Community, member nations are required to pursue common monetary and fiscal policies)
 - **Political union:** economic-union features with political harmony (Essentially, countries merge with each other to create a new nation {Soviet Union})

ECONOMIC INTEGRATION

3. Regional economic agreements:

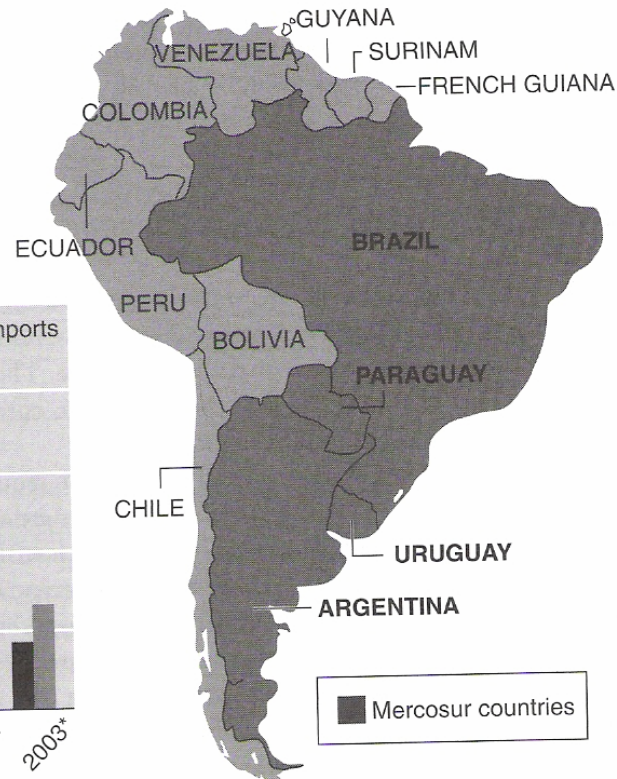
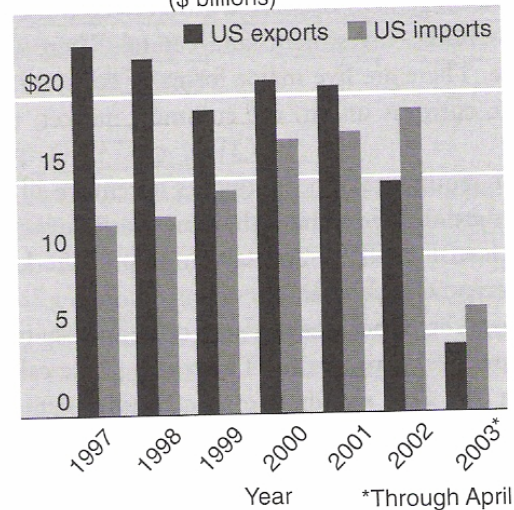
- **European Union of 15 countries** began its operations with a single Central European Bank on January 1, 1999. The EU accepted 10 new members on May 1, 2004.
- **North American Free Trade Agreement (NAFTA)** of the USA, Canada, and Mexico on January 1, 1994.
- Asian integration efforts consist of the **Association of South East Asian Nations (ASEAN)**, The Asian Pacific Economic Cooperation (APEC), and informal yen-trading bloc.

ECONOMIC INTEGRATION

Strength in Numbers

South America's Mercosur trade group is discussing greater integration, including a unified strategy for free-trade negotiations with the USA.

US trade with Mercosur countries
(\$ billions)



The Mercosur Trade Group (Customs Union)

MOTIVE FOR FOREIGN INVESTMENT

- **Explain changes in the location of production on the basis of states in a product's life.**
- **Improve its risk-return performance by holding an internationally diversified portfolio of assets.**
- **Invest abroad to exploit (take advantage) their quasi-monopoly advantages.**

INVESTMENT THEORIES

1. The product life cycle theory:

- a. Exporter with monopoly position.**
- b. Increasing transportation and tariff cost makes it less attractive to export the product. International production replaces home-country production.**
- c. Some foreign company begin to compete in third country market. This competition leads to a further reduction in home-country export.**
- d. Foreign company export back to home-country**

INVESTMENT THEORIES

- 2. The portfolio theory** (indicates that a company is often able to improve its risk –return performance by holding a diversified portfolio of assets)
- 3. The oligopoly model** (Assumes that business firms make foreign investments to exploit their quasi-monopoly advantages). **An oligopoly exists where there are only a few firms whose products are usually close substitute for one another)**
- 4. Other studies of motives for foreign investment by the strategic decision from the stand point of investor and from stand point of host countries**

A SYNTHESIS(*) OF FOREIGN TRADE AND INVESTMENT THEORIES

Eclectic Theory (Dunning 1981) : An Attempt to explain a logical link between the international allocation of resources and the exchange of goods between countries. Exploit foreign markets through exports first and then invest abroad at some point in the future.

Company are willing to invest in overseas facilities if the company has the following three kind of advantages:

- 1. Location specific advantages**, such as natural resources and low labor cost.
- 2. Ownership specific advantages**, such as capital funds and technology.
- 3. Internationalization advantages** are location and ownership advantages magnified by international investment (**license ownership them to foreign owners**).

(*) Combination of both

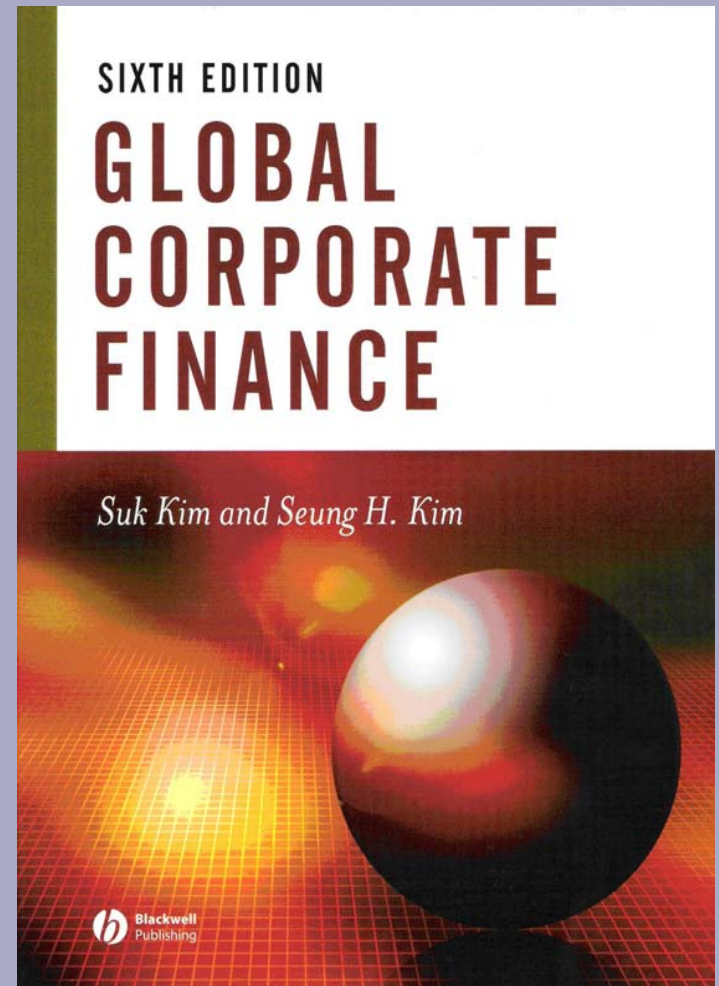
INTERNET EXERCISES



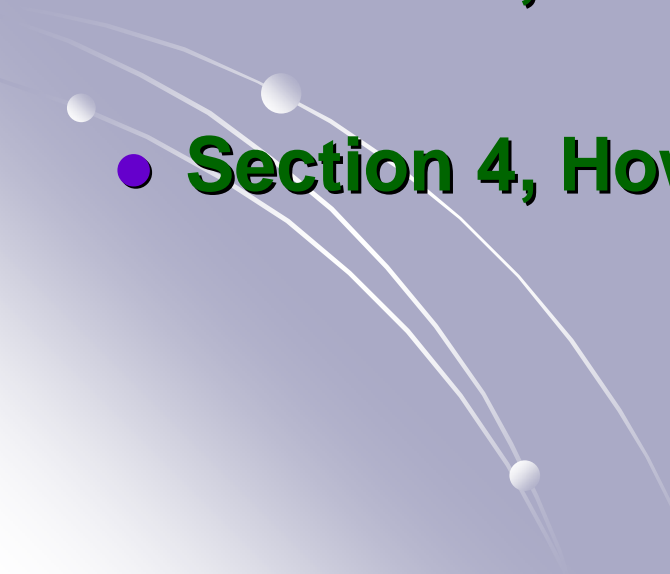
- Government subsidies in lumber production have created an unfair economic advantage in the trade of lumber between Canada and the United States. Access the websites of the BEA <<http://www.bea.doc.gov>>, the OECD <<http://www.oecd.org>>, and NAFTA text <<http://www.nafta-sec-alena.org>> to answer the following questions: How do these subsidies affect the lumber trade between Canada and the US? How big an industry is this? Which country had the comparative advantage before government intervention? Which one held the comparative advantage after the government intervention? Is lumber trade part of the NAFTA agreement? There are numerous news articles on this subject. What is the position of US consumers' on lumber duties. Refer to the following web site for your answer: <<http://www.newswire.ca/releases/January2003/08/c827.html>>?
- The intent of the NAFTA is to eliminate all tariffs on goods and services produced in one member country and exported to another. However, that does not mean that all cars made in one member country can cross the border to another member country tariff free. What are the “Rules of Origin” as outlined in chapter 4 of NAFTA? You may view the full text of NAFTA at <<http://www.nafta-sec-alena.org>> Volkswagen, Hyundai, and Honda are some of the foreign owned multinational automakers operating in NAFTA countries. How can these companies maintain tariff free status when exporting within NAFTA countries? What happens when “non-originating” materials are used in the product exported and how does this affect the “Regional Value Content” of the product?

CHAPTER - 3

THE BALANCE OF PAYMENTS



Chapter 3 Major Sections

- **Section 1, An Overview of the Balance of Payments**
 - **Section 2, Balance of Payments Accounts**
 - **Section 3, The Actual Balance of Payment**
 - **Section 4, How to Reduce a Trade Deficit**
- 

OPENING CASE 3

Opening Case 3: Opportunity Cost and Comparative Advantage

Let's assume that with a fixed investment of \$1 million, the United Kingdom produces more computers than Australia, while Australia produces more coal than the UK. This means that neither the UK nor Australia has an absolute advantage in producing both products. Consequently, the UK and Australia are better off if each country specializes in what it produces best and then trades with the other. Does this mean that specialization and trade provide no benefits for a country that produces more in both products than another country with a given amount of investment? Let's say that Lisa Smith, a great trial lawyer, happens to be a very good typist – so good that she is somewhat faster than her secretary, Jack Lee. But just because Lisa can type faster than Jack, does this mean that she should? To answer this question, you can use the concepts of opportunity cost and comparative advantage. Assume that Lisa can type a legal document in 2 hours. In that 2 hours, she could defend her client in the court and earn \$1,000. By contrast, Jack can type the same legal document in 3 hours. In that same 3 hours, he could work at McDonald's and earn \$30.

In this example, Lisa's opportunity cost of typing the document is \$1,000 and Jack's opportunity cost is \$30. Lisa has an absolute advantage in typing the document because she can type it in less time. Yet Jack has a comparative advantage in typing the document because he has the lower opportunity cost. The gains from trade in this example are tremendous. Rather than typing the document, Lisa should defend her client and let Jack type the document. As long as she pays him more than \$30 and less than \$1,000, both of them are better off.

The original eighteenth-century model of international trade, known as the theory of comparative advantage, assumes complementary trade. Some countries can

AN OVERVIEW OF THE BALANCE OF PAYMENTS

- **Accounting treatment**
 - **A country's balance of payments is the record of transactions between its residents and foreign residents over a specified period.**
 - **The balance of payments is a sources-and-uses-of-funds statement.**
 - **Transactions that earn foreign exchange are recorded as credit, plus, or cash inflows (sources), such as exports of goods and services.**
 - **Transactions that expend foreign exchange are recorded as debit, minus, and cash outflows (uses), such as imports of goods and services.**

NUMERICAL EXAMPLE 3.1

	Debits (Outflows)	Credits (Inflows)
	Expend Foreign Exchange	Earn Foreign Exchange
3-1a		\$30,000
3-1b	\$ 5,000	
3-1c	20,000	
3-1d	5,000	
3-1e	<u>10,000</u>	
Reserves		<u>10,000</u>
Total	\$40,000	\$40,000

THE BALANCE OF PAYMENTS AS A WHOLE

Country Deficit or Surplus

Surplus	Debit < Credit
Deficit	Debit > Credit

- Autonomous transactions are those that occur because of self-interests, while compensating transactions are those that occur to eliminate the balance-of-payment imbalance.
- Surplus: autonomous receipts > autonomous payments.
- Deficit: autonomous receipts < autonomous payments.
- Balance of payments is used to:
 - predict pressures on foreign exchange rate.
 - anticipate government policy actions.
 - assess a country's credit and political risks.
 - evaluate a country's economic health.

THE INTERNATIONAL MONETARY FUND (IMF)

- **The Balance of payments identifies transactions along functional lines.**
- **The IMF classifies balance of payments transactions into five major groups:**
 - **A: Current Account**
 - **B: Capital Account**
 - **C: Financial Account**
 - **D: Net Errors and Omissions**
 - **E: Reserves and Related Items**

BALANCE OF PAYMENTS ACCOUNTS

Table 3.1 The US balance of payments (billions of US dollars)

	Code	1995	1996	1997	1998	1999	2000	2001	2002
A. Current account*	4993 Z.	-105.19	-117.16	-127.68	-204.67	-290.87	-411.46	-393.74	-480.86
Goods: exports f.o.b	2100 ..	577.04	614.01	680.33	672.38	686.27	774.63	721.84	685.38
Goods: imports f.o.b	3100 ..	-749.37	-803.11	-876.51	-917.12	-1,029.99	-1,224.43	-1,145.95	-1,164.76
Balance on goods	4100 ..	-172.33	-189.10	-196.18	-244.74	-343.72	-449.79	-424.11	-479.38
Services: credit	2200 ..	216.69	236.89	253.55	260.19	279.20	295.42	285.74	288.72
Services: debit	3200 ..	-139.43	-150.63	-164.44	-178.59	-196.70	-221.01	-219.44	-227.38
Balance on goods and services	4991 ..	-95.07	-102.84	-107.06	-163.14	-261.23	-375.38	-357.82	-418.04
Income: credit	2300 ..	211.96	226.28	261.05	258.66	290.20	346.86	277.36	255.54
Income: debit	3300 ..	-186.89	-201.74	-240.37	-251.74	-273.09	-327.25	-266.67	-259.51
Balance on goods, services, and income	4992 ..	-70.00	-78.30	-86.38	-156.23	-244.12	-355.78	-347.13	-422.01
Current transfers: credit	2379 Z.	8.64	10.39	9.86	9.64	8.85	10.78	8.56	11.50
Current transfers: debit	3379 ..	-43.82	-49.25	-51.16	-58.07	-55.60	-66.46	-55.18	-70.35
B. Capital account*	4994 Z.	-.93	-.65	-1.04	-.74	-4.84	-.80	-1.06	-1.29
Capital account: credit	2994 Z.	1.03	.89	.83	.93	1.08	1.08	1.05	1.11
Capital account: debit	3994 ..	-1.96	-1.55	-1.87	-1.67	-5.92	-1.87	-2.11	-2.39
Total, groups A plus B	4981 ..	-106.12	-117.81	-128.72	-205.41	-295.71	-412.26	-394.80	-482.14
C. Financial account*	4995 W.	95.91	130.54	220.18	82.51	227.82	456.63	420.50	531.68
Direct investment abroad	4505 ..	-98.78	-91.88	-104.82	-142.64	-224.93	-159.21	-119.96	-137.84
Direct investment in United States	4555 Z.	57.80	86.52	105.59	179.03	289.44	321.27	151.58	39.63
Portfolio investment assets	4602 ..	-122.51	-149.83	-118.98	-124.20	-116.24	-121.91	-84.64	15.80
Equity securities	4610 ..	-65.41	-82.85	-57.58	-101.36	-114.31	-106.71	-109.10	-17.68
Debt securities	4619 ..	-57.10	-66.98	-61.40	-22.84	-1.93	-15.19	24.47	33.48
Portfolio investment liabilities	4652 Z.	210.35	332.78	333.11	187.56	285.60	420.00	425.08	421.44
Equity securities	4660 ..	16.52	11.06	67.03	41.96	112.29	193.60	121.42	53.20
Debt securities	4669 Z.	193.83	321.72	266.08	145.61	173.31	226.40	303.66	368.24
Financial derivatives	4910 ..	.....	.....	.....	.....	.....	.....	.....	.....
Financial derivatives assets	4900 ..	.....	.....	.....	.....	.....	.....	.....	.....
Financial derivatives liabilities	4905 ..	.....	.....	.....	.....	.....	.....	.....	.....
Other investment assets	4703 ..	-121.38	-178.87	-262.82	-74.20	-171.22	-288.39	-140.43	-53.27
Monetary authorities	4701 ..	.....	.....	.....	.....	.....	.....	.....	.....
General government	4704 ..	-.98	-.99	.07	-.42	2.75	-.94	-.49	-.03
Banks	4705 ..	-75.11	-91.56	-141.12	-35.57	-76.26	-148.66	-134.95	-21.36
Other sectors	4728 ..	-45.29	-86.33	-121.77	-38.20	-97.70	-138.79	-5.00	-31.88
Other investment liabilities	4753 W.	170.43	131.82	268.09	56.96	165.17	284.86	188.87	245.91
Monetary authorities	4753 WA	46.72	56.88	-18.85	6.88	24.59	-6.70	35.29	64.91
General government	4753 ZB	.90	.73	-2.70	-3.25	-.98	-.39	-4.78	2.66
Banks	4753 ZC	64.18	22.18	171.31	30.27	67.20	122.72	88.40	108.72
Other sectors	4753 ZD	58.63	52.03	118.33	23.07	74.37	169.24	69.96	69.62
Total, groups A through C	4983 ..	-10.21	12.73	91.46	-122.89	-67.89	44.37	25.70	49.54
D. Net errors and omissions	4998 ..	19.96	-19.39	-90.45	129.63	59.16	-44.08	-20.77	-45.84
Total, groups A through D	4984 ..	9.75	-6.67	1.01	6.73	-8.73	.29	4.93	3.69
E. Reserves and related items	4802 A.	-9.75	6.67	-1.01	-6.73	8.73	-.29	-4.93	-3.69
Reserve assets	4802 ..	-9.75	6.67	-1.01	-6.73	8.73	-.29	-4.93	-3.69
Use of Fund credit and loans	4766 ..	.....	.....	.....	.....	.....	.....	.....	.....
Exceptional financing	4920 ..	.....	.....	.....	.....	.....	.....	.....	.....

*Excludes components that have been classified in the categories of Group E.

Private transaction

Official transaction

BALANCE OF PAYMENTS ACCOUNTS

Current Account: Group A, Consists of:

- **Goods** (exports and imports)
- **Services** (earning and expenditures for invisible trade item)
- **Income** (on investments)
- **Current Transfers**

BALANCE OF PAYMENTS ACCOUNTS

Capital Account: Group B, Consists of:

- **Capital transfers (transfer of title, fixed assets, etc.)**
- **Acquisition or disposal of nonproduced, non-financial assets, sale or purchase of non-produced assets (rights to natural resources, patents, copyrights, trade marks, and leases).**

BALANCE OF PAYMENTS ACCOUNTS

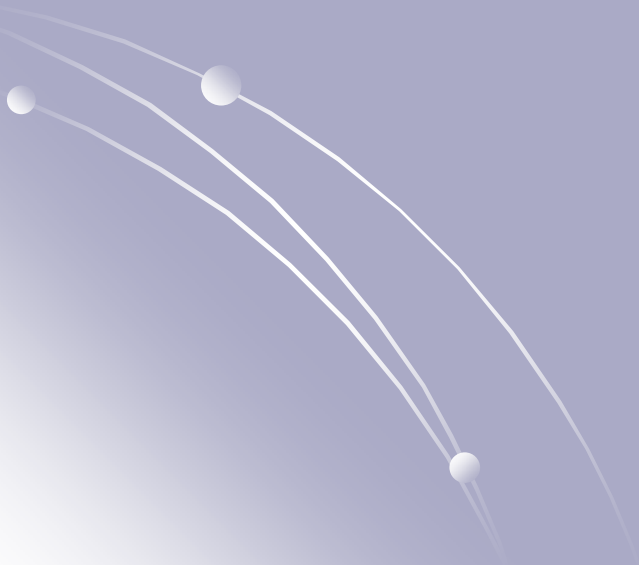
Financial Account: Group C, Consists of :

- **Foreign direct investments (FDIs)**
- **Foreign portfolio investments**
- **Other investments.**

BALANCE OF PAYMENTS ACCOUNTS

- **Net Errors and Omissions: Group D**

This is a plug item designed to keep the balance-of-payments accounts in balance.



BALANCE OF PAYMENTS ACCOUNTS

- **Reserves and Related Items: Group E, Consists of:**
 - **Official reserve assets**
 - **Use of IMF credits and loans**
 - **Exceptional financing**
- 

BALANCE OF PAYMENTS ACCOUNTS

Reserves and Related Items: Group E Foreign – exchange reserve

Table 3.2 The US dollar as a fraction of government reserves around the world

Year	Dollar as percent of total reserves	Year	Dollar as percent of total reserves
1987	56.1%	1995	57.0%
1988	55.3%	1996	60.3%
1989	52.0%	1997	62.4%
1990	50.1%	1998	65.9%
1991	51.3%	1999	68.4%
1992	55.3%	2000	68.2%
1993	56.7%	2001	68.3%
1994	56.6%	2002	68.6%

Source: The International Monetary Fund, Washington, DC.

BALANCE OF PAYMENTS ACCOUNTS

The Balance of payment identity:

- **Flows of goods and services: current account.**
- **Flows of financial assets (net foreign investment) = capital account + financial account + net errors and omissions + reserves and related items.**
- **Flows of goods and services + net foreign investment = 0**

or

current account + capital account + financial account + net errors and omissions + reserves and related items = 0

$$\text{CuA} + \text{CaA} + \text{FiA} + \text{NEO} + \text{RR} = 0 \quad (\text{Eq. 3.1})$$

THE ACTUAL BALANCE OF PAYMENTS

Major Countries on Current Account

- **The US incurred massive current-account deficits during the 1990s and early 2000s.**
- **Japan incurred massive current-account surpluses during the 1990s and early 2000s.**

THE ACTUAL BALANCE OF PAYMENTS

Table 3.3 Major-country balances on current account (billions of US dollars)

Country	1994	1995	1996	1997	1998	1999	2000	2001	2002
<u>China</u>	7	2	7	37	31	21	21	17	32
Germany	-21	-19	-8	-3	-6	-19	-20	2	46
<u>Japan</u>	130	114	66	97	119	115	120	87	112
UK	-10	-14	-13	-3	-8	-32	-29	-29	-14
<u>USA</u>	-118	-106	-118	-128	-204	-293	-410	-393	-480

Source: The International Monetary Fund, *Balance of Payments Statistics Yearbook*, 2002 and 2003, various pages.

THE ACTUAL BALANCE OF PAYMENTS

Major Country Balances in Financial Account

- **The US incurred massive financial-account surpluses during the 1990s and early 2000s.**
- **Japan incurred massive financial-account deficits during the 1990s and early 2000s.**

THE ACTUAL BALANCE OF PAYMENTS

Table 3.4 Major-country balances on financial account (billions of US dollars)

Country	1994	1995	1996	1997	1998	1999	2000	2001	2002
<u>China</u>	2	16	8	-14	-13	-3	-9	-12	-42
Germany	32	37	5	5	4	16	41	-21	-75
<u>Japan</u>	-110	-123	-63	-127	-106	-115	-127	-89	-109
UK	3	8	9	-8	0	32	21	28	12
<u>USA</u>	130	86	137	219	64	265	409	382	527

Source: The International Monetary Fund, *Balance of Payments Statistics Yearbook*, 2002 and 2003, various pages.

THE ACTUAL BALANCE OF PAYMENTS

The World Balance of Payments

- The expansion of world trade grew 6.4 percent per year between 1991 and 1999, 13.1 percent in 2000, 0.4 percent in 2001, and 3.0 percent in 2002, but it expected to grow by about 7 percent per year from 2003 to 2005.
- The expansion of world output grew 2.4 percent per year between 1991 and 1999, 3.8 percent in 2000, 1.2 percent in 2001, and 1.7 percent in 2002, but it expected to grow between 2 and 3 percent per year between 2003 and 2005.
- Those statistics in a and b indicate the relative openness of markets and the ongoing integration of the global economy.

THE ACTUAL BALANCE OF PAYMENTS

Table 3.5 World merchandise trade

<i>Year(s)</i>	<i>World trade growth</i>	<i>World output growth</i>
1991–9	6.4%	2.4%
2000	13.1%	3.8%
2001	0.4%	1.2%
2002	3.0%	1.7%
2003 ^f	6.2%	2.3%
2004 ^f	8.1%	3.2%
2005 ^f	8.1%	3.1%

Note: f = forecast.

Sources: The World Bank, *Global Development Finance*, Washington, DC, 2000, 2003, and 2004, various pages.

INTERNATIONAL INVESTMENT POSITION

International investment position is a stock concept because it summarizes a country's assets and liabilities on a given date.

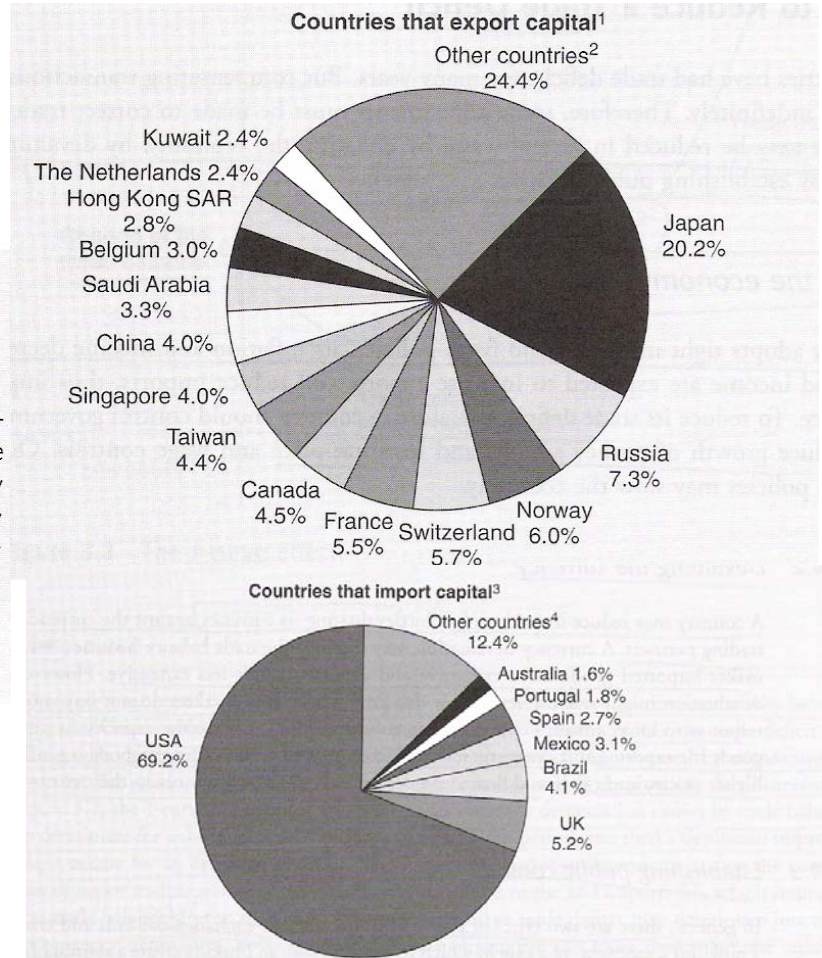
- **The US is the largest net debtor nation in the world, while Japan is the largest net creditor nation in the world.**
- **Foreign direct investment (FDI) in the US accounts for 35 percent of foreign assets in the US, but FDI in Japan accounts for 10 percent in foreign assets in Japan.**
- **The US's other investment (mostly short-term capital flows) accounts for 30 percent of its total foreign assets, while Japan's other investment amounts to more than 45 percent.**

GLOBAL FINANCE IN ACTION 3.1

Global Finance in Action 3.1

Is there Another Wave of American Decline?

The collapse of the Soviet Union in 1991, along with the unusually strong performance of both the US economy and its stock market during the 1990s, elevated the USA to unsurpassed economic, militarily, and cultural power. However, in the early 2000s, the USA faced another wave of decline since the 1950s, a phenomenon largely triggered by its economic problems. Every single empire and great nation of history has been destroyed or has greatly diminished in world influence. Why should we assume that the USA, today's great nation, could prevail over the pattern of history? If we assume for the moment American decline, the European Union or China seems likely to emerge as a great power, which might end the dominance of the USA in the



Source: International Monetary Fund, *World Economic Outlook* database.

¹As measured by countries' current (capital) account surplus (deficit).

²Other countries include all countries with shares of total surplus less than 2.4%.

³As measured by countries' current (capital) account deficit (surplus).

⁴Other countries include all countries with shares of total deficit less than 1.6%.


Figure 3.1 Global capital flows: sources and uses of global capital in 2001

Source: The International Monetary Fund, *Global Financial Stability Report*, Washington, DC, 2004, p. 105.

HOW TO REDUCE A TRADE DEFICIT

- **Deflate the economy through tight monetary and fiscal policies.**
 - **Devalue the currency.**
 - **Establish public control.**
 - **J-Curve**
- 

HOW TO REDUCE A TRADE DEFICIT

- **J-curve is a theory designed to explain why a currency depreciation may not improve the balance of trade.**
 - **The J-curve effect holds that a country's currency depreciation causes its trade balance to deteriorate for a short time, followed by a flattering out period, and then a significant improvement occurs for an extended period.**
- 

HOW TO REDUCE A TRADE DEFICIT

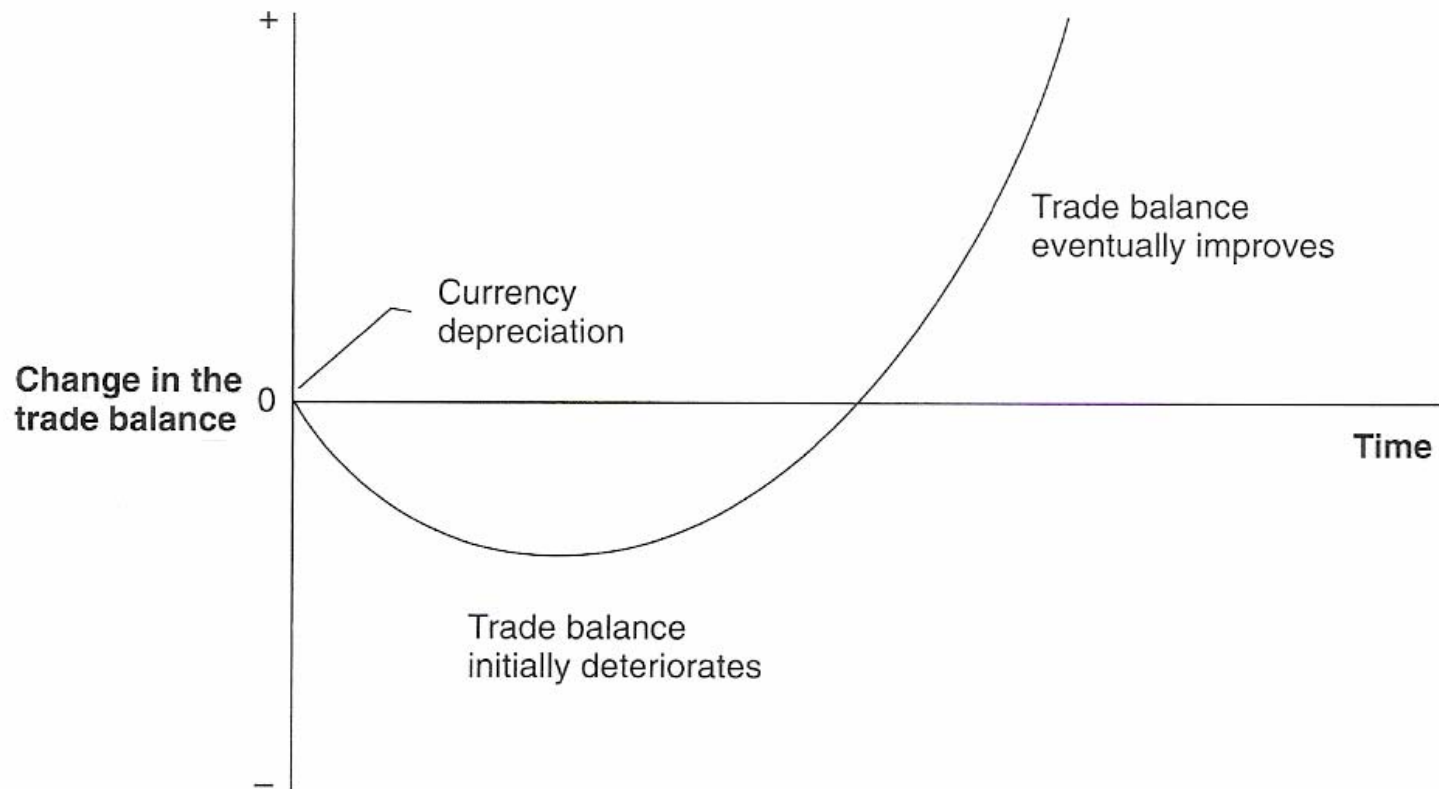


Figure 3.2 The J-curve effect

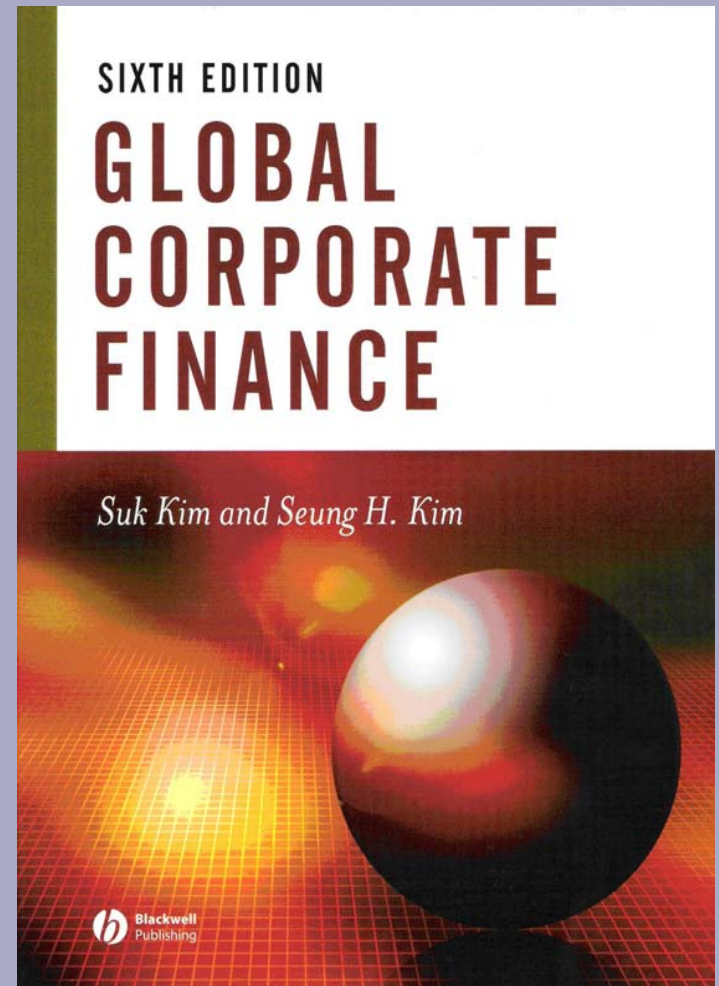
INTERNET EXERCISES



- The website of the US Census Bureau <http://www.census.gov> provides statistics on foreign trade and other economic data. Utilize this site to identify the trade balance trends of the United States and Japan over the last three years. You may find the most recent balance of payment statistics for both countries by consulting the US Bureau of Economic Analysis at <http://www.bea.doc.gov> and Japan's Ministry of Finance at <http://www.mof.go.jp>. Historical data are also available at these sites for trend analysis.
- Construct the balance-of-payment table for any two countries, such as Germany and Canada for any particular year and interpret the numerical data. You can access this information by visiting the website of the IMF <http://www.imf.org/external/about.htm>.

CHAPTER - 4

THE INTERNATIONAL MONETARY SYSTEM



Chapter 4 Major Sections

- **Section 1, A Successful Foreign – Exchange System**
- **Section 2, A Brief History of the International Monetary System**
- **Section 3, The International Monetary Fund**
- **Section 4, The European Monetary Union**
- **Section 5, Proposals for Future International Monetary Reform**

Opening Case 4

● *The Euro – A Story of Change*

On January 1, 2002, the euro (€) officially became the national currency for 300 million people in 12 countries – Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Spain, and the Netherlands. This move constituted a major change in the region and has resulted in many fundamental changes. In this case, the broad changes will be discussed, and then some of the specifics of the process will be explored by focusing on Italy's transition from the lira to the euro.


The euro was first used by monetary authorities and businesses on January 1, 1999. On July 1, 2002, euro coins and notes officially replaced the national coins and notes of the 12 Euroland countries. In recent years, the euro has been associated with deeper capital markets and increasing demands by shareholders for better corporate governance. Steps have also been taken to pool economic data and to better coordinate banking oversight across national boundaries. And the euro has helped drive long overdue industry consolidations, from telecommunications to airlines. Overall, the euro has become the world's second-largest currency in terms of gross domestic product and has assisted in the recent trend of slow but sure market-opening liberalization in Europe.

The euro has also resulted in positive daily life benefits for European citizens. For example, when these citizens travel to other euro countries, they can more easily compare prices, and they will not have to stop at a foreign-exchange window and hand over a foreign-exchange commission. Consumers are already gaining from their new ability to compare prices in one currency. In 2001, the website of the French national railway system started quoting a single, euro-denominated price, instead of 12 different prices; the result was consumer savings of as much as 20 percent. In short,

1. Euro Problems in Italy

2. Purchasing power

A SUCCESSFUL FOREIGN - EXCHANGE SYSTEM

- **Flexible exchange rates**
 - **Fixed exchange rates**
 - **Market equilibrium**
- 

FLEXIBLE EXCHANGE RATE

- **Flexible exchange rates are exchange rates, which fluctuate according to market forces.**
- **Advantages:**
 - Allow countries to maintain independent economic policies.
 - Permit a smooth adjustment to external shocks.
 - Don't need to maintain large international reserves.
- **Disadvantages:**
 - Flexible exchange rates are highly unstable so that flows of foreign trade and investment may be discouraged.
 - They are inherently inflationary.

FLEXIBLE EXCHANGE RATE

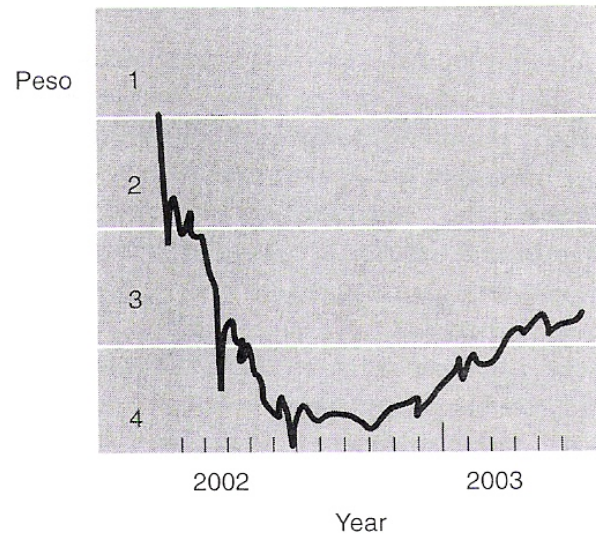


Figure 4.1 Argentine pesos per US dollar (inverted scale)

Source: *The Wall Street Journal*, July 2, 2003, p. A6.

FLEXIBLE EXCHANGE RATES

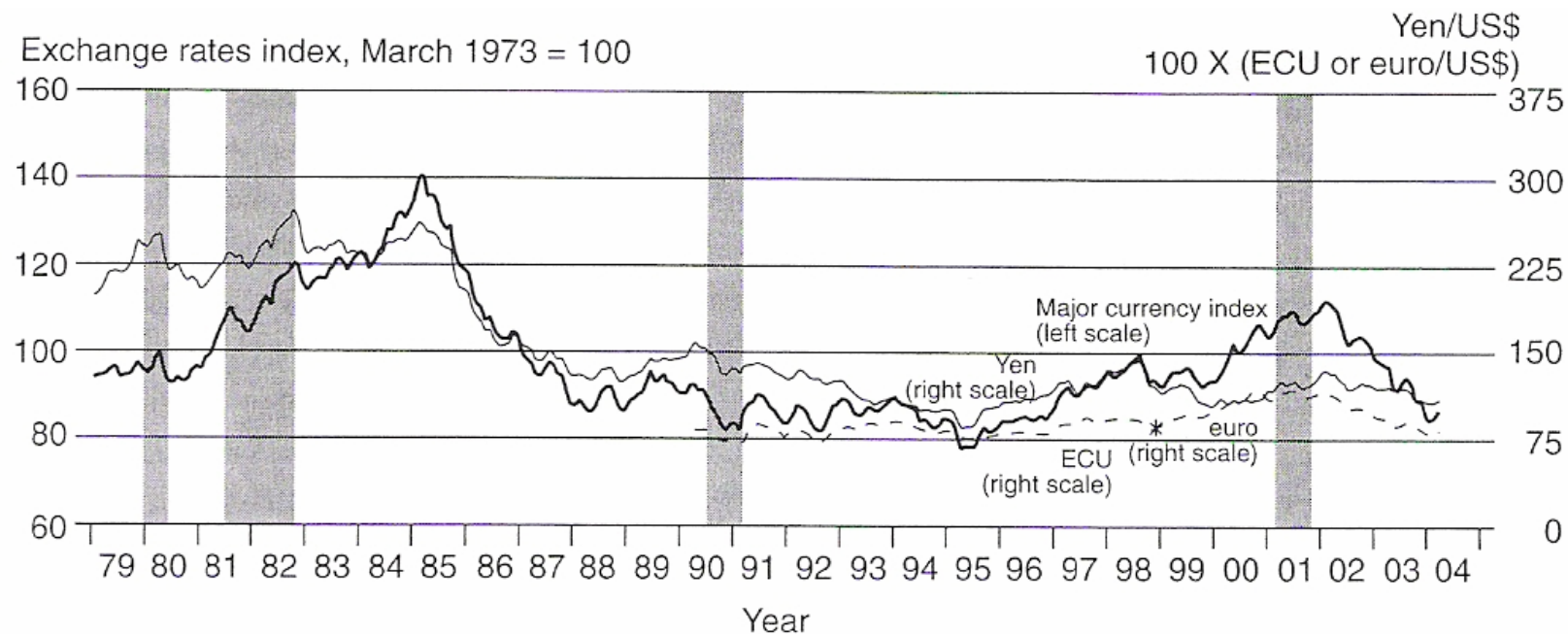


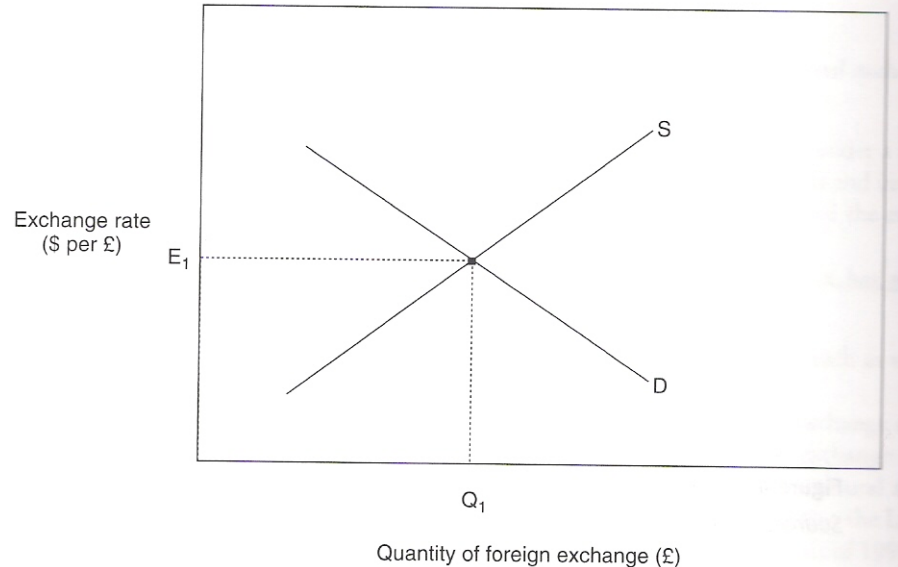
Figure 4.5 The US dollar under floating exchange rates

FIXED EXCHANGE RATES

- **Fixed exchange rates are exchange rates which do not fluctuate or which change within a predetermine band.**
- **Fixed exchange rates provide the stability of exchange rate, but their disadvantages include:**
 - a. Too rigid to take care of major upheavals (disturbances).**
 - b. Need large reserves to defend the fixed exchange rate.**
 - c. May cause destabilizing speculations; most currency crises took place under a fixed exchange system.**
- **Currency board is a monetary institution that only issues currency to the extent if it is fully backed by foreign reserves; this system is a rather rigid form of fixed exchange rates.**

MARKET EQUILIBRIUM

1. The equilibrium exchange rate and quantity are determined at the point where the demand curve for and the supply curve of foreign exchange are intersected.



MARKET EQUILIBRIUM

- 2. Assuming that the US dollar is a domestic currency and the British pound is a foreign currency, the demand curve for a foreign currency could be shifted to the right because of:**
- a. A higher inflation rate in the US**
 - b. Lower interest rates in the US**
 - c. An increase in the US income level**
 - d. US government purchase of British pounds.**

MARKET EQUILIBRIUM

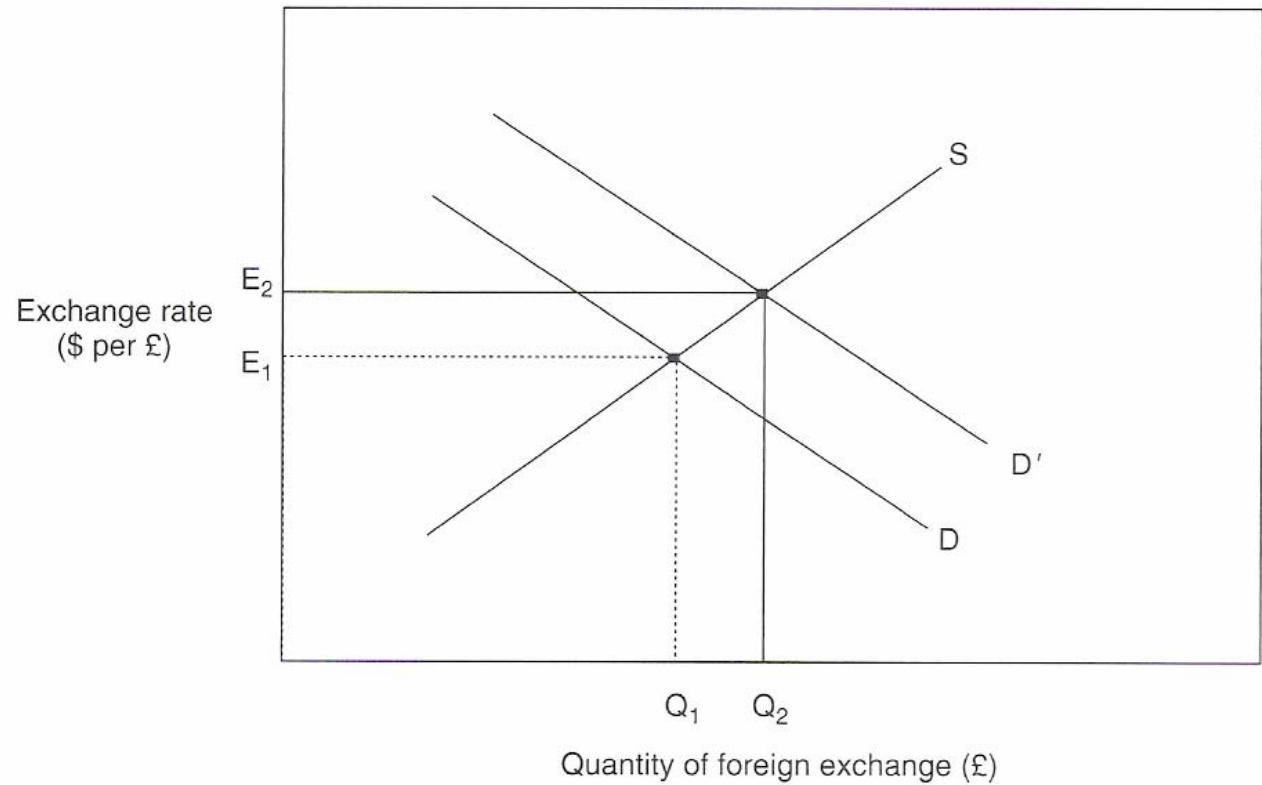


Figure 4.3 How an increase in demand for pounds affects the equilibrium

MARKET EQUILIBRIUM

- 3. The supply curve for a foreign currency could be shifted to the right because of:**
- a. A higher inflation in Britain**
 - b. Lower interest rates in Britain**
 - c. An increase in the British income level**
 - d. British government sale of US dollars.**

MARKET EQUILIBRIUM

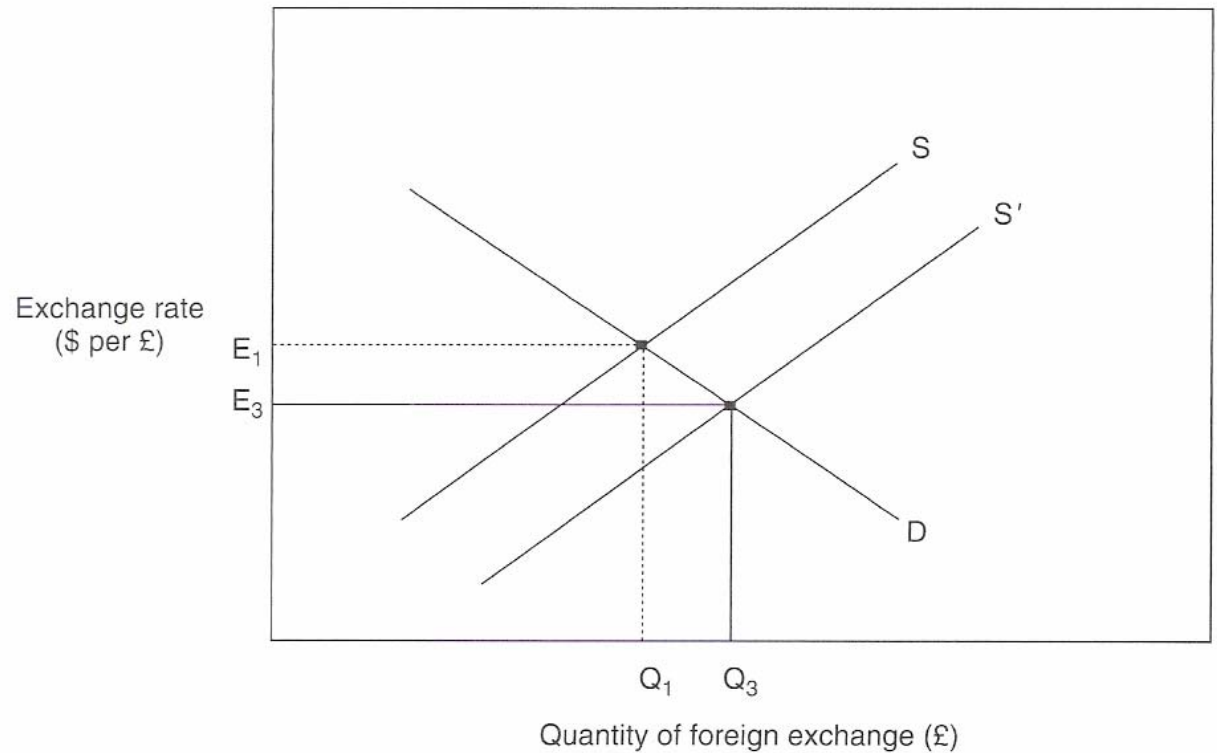


Figure 4.4 How an increase in supply of pounds affects the equilibrium

HISTORY OF INTERNATIONAL MONETARY SYSTEM

1914 Breakdown of gold standard and monetary disorder began.

1934 US dollar pegged at \$35 per ounce of gold.

1944 Conference of Bretton Woods, New Hampshire established a fixed exchange system based on the US dollar. IMF and World Bank created.

1958 European Economic Community established.

HISTORY OF INTERNATIONAL MONETARY SYSTEM

- 1963 The US levied "Interest Equalization Tax" on foreign borrowings in US capital markets.**
- 1963 The US imposed voluntary controls on capital outflows from US banks and companies.**
- 1968 The US imposed mandatory controls on foreign investment by US companies.**
- 1970 Special drawing rights (SDRs) created.**

HISTORY OF INTERNATIONAL MONETARY SYSTEM

- 1971** On August 15, the US dollar floated; the convertibility of the US dollar eliminated; an import surcharge imposed.
On December 17, Smithsonian Agreement reached; the US dollar devalued from \$35 per ounce of gold to \$38.
- 1972** A snake (2.25%) within a tunnel (4.5%) established.
- 1973** The US dollar devalued from \$38 to \$42.22 in March.
- 1973** Organization for Petroleum Exporting Countries (OPEC) imposed oil embargo, eventually quadrupling world prices of oil.

HISTORY OF INTERNATIONAL MONETARY SYSTEM

- 1976 IMF meeting in Jamaica, known as "Jamaica Agreement," legalized the existing floating system.**
- 1978 The EEC established the European Monetary System which officially replaced a snake within a tunnel. This is a joint floating system.**
- 1982 Latin American debt crisis began.**
- 1985 Group of Five countries reached "Plaza Agreement" to reduce the value of the US dollar.**

HISTORY OF INTERNATIONAL MONETARY SYSTEM

- 1987** Major industrialized countries reached "Louvre Accord" to support stability and exchange rates around their current levels.
- 1992** High German interest rates caused "the September 1992 currency crisis in Europe." Italy and the United Kingdom withdrew from the European Monetary System.
- 1993** The July 1993 currency crisis in Europe forced the EEC to widen allowable deviation band to ± 15 percent.
- 1993** A Single European Community created. The name of the EEC has changed to the European Union (EU).

HISTORY OF INTERNATIONAL MONETARY SYSTEM

1994 Mexican peso suffered major devaluation (40%) and began to float.

1997 In July 1997, currency turmoil erupted in Thailand and spread to Indonesia, South Korea, and other South Asian countries.

1999 On January 1, 1999, 11 European countries launched a single European currency called the euro, with a common monetary policy established by an independent European Central Bank.

HISTORY OF INTERNATIONAL MONETARY SYSTEM

2002 On January 1, the euro began public circulation and traded alongside the national currencies. On July 1, the euro replaced the national currencies of euro-zone countries.

2004 On May 1, the EU accepted 10 new members: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

INTERNATIONAL MONETARY FUND (IMF)

Created in 1944, its objectives are:

- a. To promote international monetary cooperation.**
- b. To facilitate the balanced growth of world trade.**
- c. To promote exchange stability.**
- d. To eliminate exchange restrictions.**
- e. To create standby reserves.**

SPECIAL DRAWING RIGHTS (SDRs)

SPECIAL DRAWING RIGHTS (SDRs)

- 1. IMF created SDRs in 1969.**
- 2. 1970-1974: SDR's value tied with the US dollar.**
- 3. 1974-1981: SDR's value tied with a basket of 16 currencies.**
- 4. Since 1999, SDR's value tied with the US dollar, Japanese yen, British pound, and euro.**
- 5. IMF use SDRs in a variety of transactions and operations. In addition, SDRs are used as means to determine a reference interest rate, an international reserve asset, and a unit of account.**

SPECIAL DRAWING RIGHTS (SDRs)

Special drawing rights

The IMF had been concerned about the lack of growth in gold holdings and about the consequent lack of growth in international reserves, which was slower than the growth in world trade. To solve these problems, the IMF created **special drawing rights (SDRs)** as an artificial international reserve in 1970.

The IMF uses a simplified basket of several major currencies to determine its daily valuation. The weight for each currency is changed periodically. As shown in table 4.2, the current percentage weights for these currencies are 45 percent for the US dollar, 29 percent for the euro, 15 percent for the Japanese yen, and 11 percent for the British pound. The weight reflects the relative importance of each country in world trade and the amount of the currency held as reserves by members of the IMF.

THE USE OF SPECIAL DRAWING RIGHTS The IMF has the authority to extend the range of official holders of SDRs beyond its member countries and the IMF's General Resources Account. It has designated about 20 organizations as prescribed holders. Each of these institutions can acquire and use SDRs in transactions and operations with other prescribed holders and with any of the IMF's member countries. Prescribed holders have the same degree of freedom as IMF members to use SDRs for a variety of international transactions.

IMF members may also use SDRs in a variety of voluntary transactions and operations by agreement among themselves and with prescribed holders. More specifically, IMF members and prescribed holders buy and sell SDRs both spot and forward; borrow, lend, or pledge SDRs; use SDRs in swaps and in settlement of financial obligations; or make donations (grants) using SDRs.

The SDR is an international reserve asset created by the IMF in 1970 and allocated to its members to supplement existing reserve assets. All member countries of the IMF are eligible to receive allocation of SDRs and may use SDRs in transactions and operations among themselves, with prescribed holders, and with the IMF itself.

Table 4.2 The composition of the special drawing rights

Currency	1981–5	1986–90	1991–5	1996–2000	2001–5
US dollar	42%	42%	40%	39%	41%
Euro	—	—	—	—	33%
German mark	19%	19%	21%	21%	—
Japanese yen	13%	15%	17%	18%	15%
British pound	13%	12%	11%	11%	11%
French franc	13%	12%	11%	11%	—

Source: The International Monetary Fund, Washington, DC.

NEW INTERNATIONAL MONETARY SYSTEM

- 1. Exchange rates are said to be "volatile" if their fluctuations are wide and unpredictable. The world has experienced more volatile exchange rates since the Bretton Wood System collapsed in 1973.**
- 2. Many economists recommend "crawling band"--a combination of a crawling peg and a wider band as a new monetary system:**
 - a. Crawling peg is a regular modification of par value, and a wider band is used to mean a band which is wider than a 4.5% allowed under Smithsonian Agreement.**
- 3. Advantages: this system will provide a discipline but a flexibility to accommodate divergent economies.**

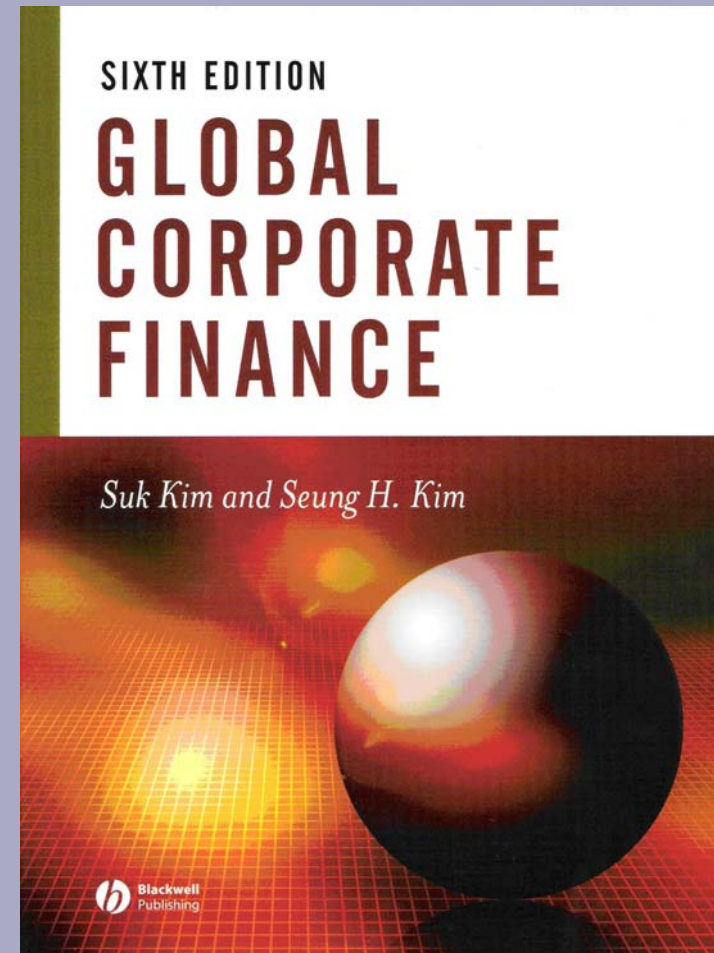
INTERNET EXERCISES

- The IMF <<http://www.imf.org>>, World Bank <<http://www.worldbank.org>>, and United Nations <<http://www.unsystem.org>> are only a few of the major world organizations that track, report, and aid international economic and financial development. Use these websites and other sites linked to these websites to summarize the economic outlook for Cuba, Afghanistan, United Kingdom, and Canada. For example, the full text of Chapter 1 of the *World Economic Outlook* published by the World Bank is available through the IMF web page. Europa (EU) Homepage <<http://www.europa.eu.int>> and the website for the Bank for International Settlements <<http://www.bis.org>> are other useful resources for finding this information.
- The web page of Pacific Policy Analysis, an extremely valuable exchange rate service, <<http://www.pacific.commerce.ubc.ca/xr>> can be used to determine the value of the euro before its introduction on January 1, 1999. The calculation of the euro's value before its introduction, assuming the fixed parities established by the European Union on December 31, 1998, gives some insight as to how its value had theoretically fluctuated even prior to its official launch. Plot the value of the euro since its inception and comment on its movement in the last year.



CHAPTER - 5

FOREIGN EXCHANGE MARKET AND PARITY CONDITIONS



Chapter 5 Major Sections

- **Section 1, Major Participants in Exchange Market**
- **Section 2, Spot Exchange Quotation: The Spot Exchange Rate**
- **Section 3, Forward Exchange Quotation : The Forward Exchange Rate**
- **Section 4, International Parity Conditions**
- **Section 5, Arbitrages**

Opening Case 5: The Volume of Foreign-Exchange Trading

- **The volume of trading in world 48 foreign exchange markets in April 2001 was \$1.2 trillion per day.**
- **The global volume of exports of goods and services for all 2001 was \$6 trillion.**
- **Foreign exchange markets = 73 times Global volume of exports of goods and services**

$$\{ (\$1.2 \text{ trillion / day}) \times 365 \text{ day / year} \} / \$6 \text{ trillion / year} = 73 \text{ times}$$

Opening Case 5: The Volume of Foreign-Exchange Trading

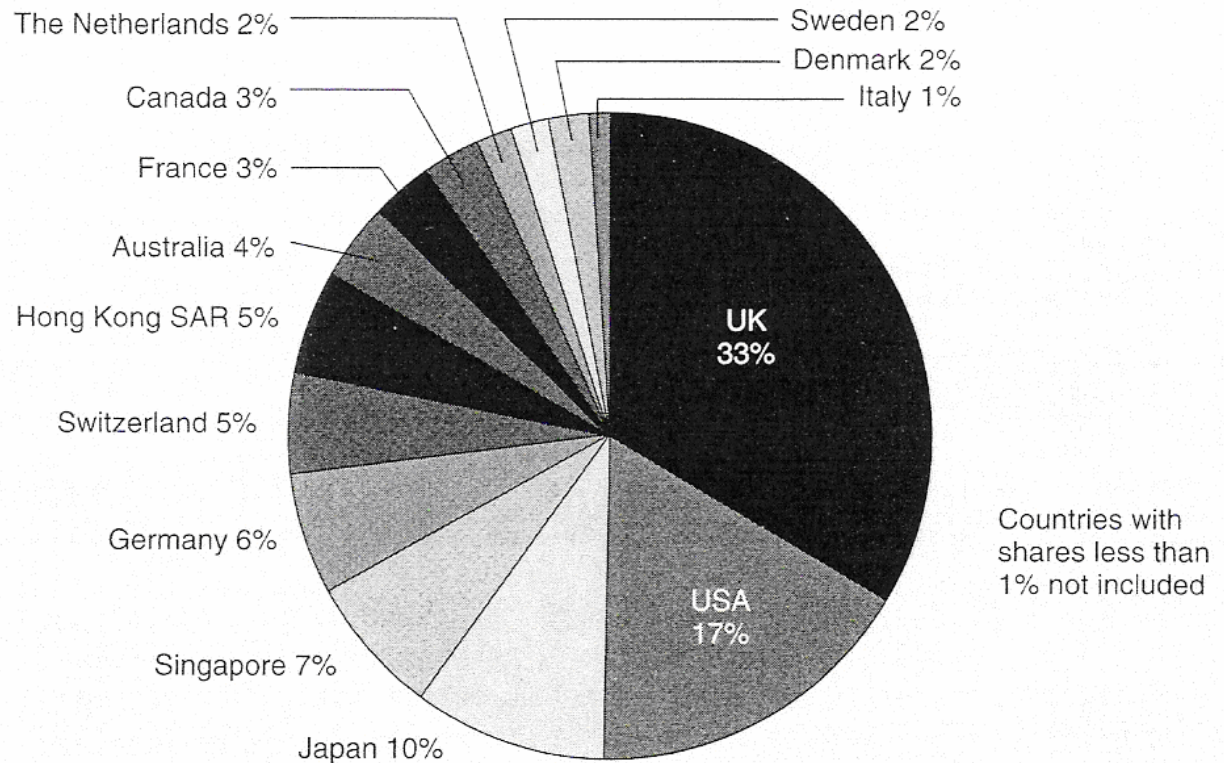


Figure 5.1 Shares of the reported foreign-exchange trading volume, 2001
Source: The Federal Reserve Bank of New York, www.ny.frb.org

*** Introduction of Euro affected the major centers for currency trading

A map of major foreign-exchange markets with time zones

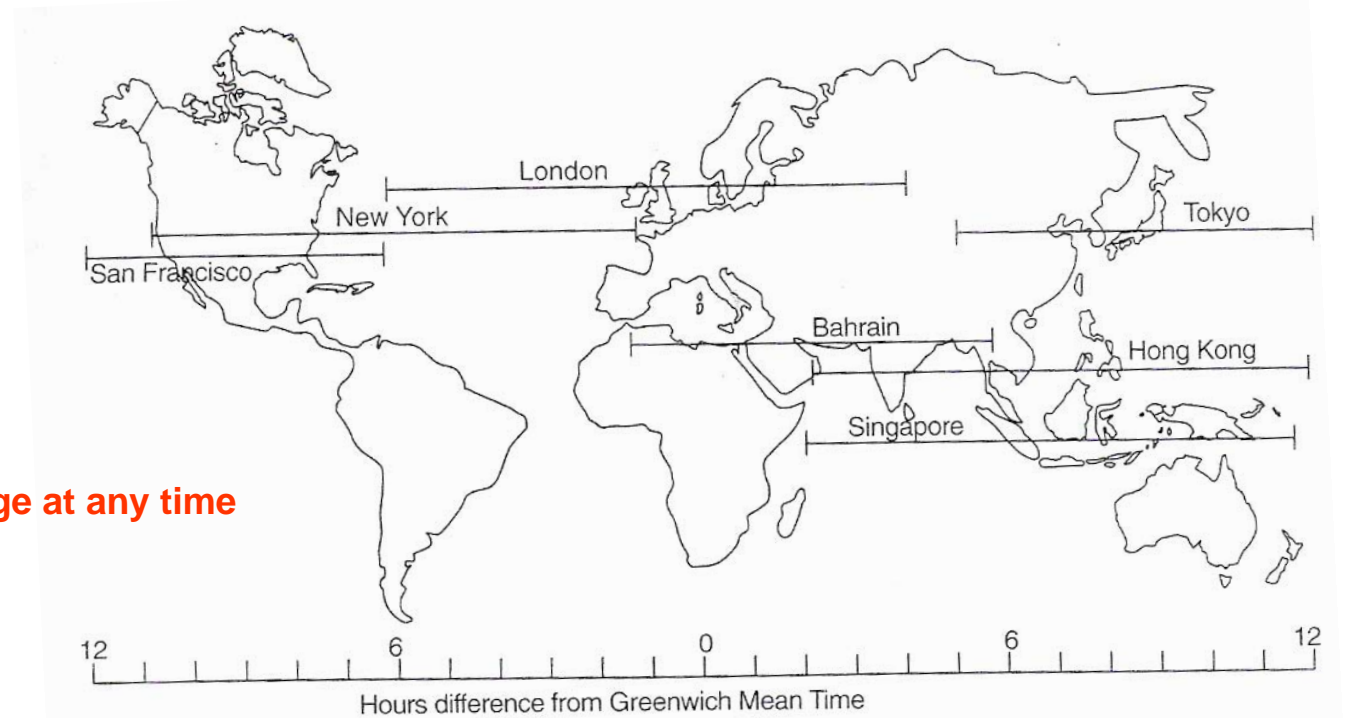


Figure 5.2 A map of major foreign-exchange markets with time zones

**** 24 hr Currency Market**

**** exchange rate may change at any time**

FOREIGN EXCHANGE MARKET PARTICIPANTS

Foreign exchange market consists of: a) Spots market and
b) Forward market

1. Actual participants are:-

- **Commercial banks (as intermediaries for customers),**
 - Operate the payment mechanism
 - Extend credit
 - Help to reduce risk (letter of credit)
- **Central banks (controls the growth of the money supply within their jurisdictions),**
- **Multinational companies (MNC),**
- **National governments,**
- **Individual investors, and**
- **Other financial institutions.**

EXCHANGE MARKET PARTICIPANTS

2. Purpose of Participation (Key reason for forward exchange transaction):

- a. **Arbitragers**: to cover the risk of loss from foreign currency proceeds in taking advantages of differences of interest rates among countries.
- b. **Traders**: eliminate the risk of loss from export or import orders denominated in foreign currencies (use forward contracts).
- c. **Hedgers**: to protect the home-currency value of foreign-currency denominated balance-sheet ($A = L + SE$) items (Assets and Liabilities).
- d. **Speculators**: expose themselves to currency risks.

The first three actually use foreign currency in their operations, but speculators never use it in their operations (engaging in forward contract in order to make a profit from exchange rate fluctuations).

In most cases, the term "hedgers" are used to mean functions of both traders and hedgers.

Global Finance Action 5-1

- **Is official exchange intervention effective?**

In a sterilize intervention, the central bank offsets the purchase or sale of foreign exchange by selling or purchasing domestic securities to keep the domestic interest rate at its target, because the domestic interest rate usually is considered the main determinate of the value of domestic currency, may argue, it must change in order to influence the exchange rate.

SPOT EXCHANGE QUOTATIONS

- 1. Spot rate is a foreign exchange rate paid for immediate deliver of a currency within 2 business days after the day of a trade.**

(WSJ and The Financial times (London) print a daily list of exchange rates , table 5.1).

- 2. Direct quote and indirect quote (foreign exchange are frequently given as direct quote or as indirect quote):**

- Direct quote is a home currency price per unit of a foreign currency, such as:**

\$1.5 per £1.0 for a US resident.

- Indirect quote is a foreign currency price per unit of a home currency, such as:**

£0.67 per \$1.0 for a US resident.

(WSJ print a daily list of exchange rates , table 5.1).

[illegible][illegible]

Direct
general
indirect
quotative

 $\Leftarrow \text{SDR}$

WSJ (B6)

May 25, 2006
Friday

SPOT EXCHANGE QUOTATIONS

3. Cross rate is an exchange rate between two non-home currencies, such as **Mex\$6.40 per £1.0 for a US resident** (Mexico Peso)

4. Measuring a percentage change in spot rates:

a. Direct quote:

% change in the value of foreign currency = (ending rate - beginning rate) / beginning rate (5.1)

b. Indirect quote:

% change in spot rate of foreign currency = (beginning rate - ending rate) / ending rate (5.2)

SPOT EXCHANGE QUOTATIONS

5. Bid-Ask Rates:

- a. **Bid price** is the price at which the bank is ready to **buy** a foreign currency.
- b. **Ask price** is the price at which the bank is ready to **sell** a foreign currency.
- c. **Bid-ask spread** is the difference between bid and ask rates.
- d. Spread in direct quote = bid–ask spread = $(\text{ask price} - \text{bid price}) / \text{ask price}$ (5.3)

FORWARD EXCHANGE QUOTATION

1. **Forward rate** is a foreign exchange rate for a currency paid to be delivered at some future date (30 days, 90 days or 180 days).

2.

a. Quote in points:

• **One point** = 0.01 percent = 0.01% = 0.0001

Forward quote in point = forward rate - spot rate
= **bank's fee**

FORWARD EXCHANGE QUOTATION

3.

b. Forward premium or discount

$$\text{Premium or discount} = (n - \text{day forward rate} - \text{spot rate} / \text{spot rate}) \times (360 / n) \quad (5.4)$$

4. Table 5.1 (WSJ)



Example 5.5

A Forward

Premium or Discount

Forward quotations are made either "outright" or in terms of the spread on the spot rate. Suppose that the 90-day outright forward quotation is \$0.7900 per Can\$ for Canadian dollars and \$0.6000 per SFr for Swiss francs, and that the spot rate is \$0.8000 per Can\$ and \$0.5800 per SFr. The spread between the forward rate and the spot rate is stated in terms of points; one point equals 0.01 percent or \$0.0001. Point quotations for the two 90-day forward rates are determined as follows:

Spot or forward rate	Canadian dollars	Swiss francs
90-day forward rate	\$0.7900	\$0.6000
Less: spot rate	<u>0.8000</u>	<u>0.5800</u>
90-day forward quote in points	-100	+200

In giving a forward quote for the Canadian dollar, a trader might say "minus 100" or "a discount of 100." For the Swiss franc, the trader would say "plus 200" or "a premium of 200." Thus, when the forward rate is less than the spot rate, it is said to be at a discount. When the forward rate is greater than the spot rate, it is said to be at a premium. Outright quotations are normally used for retail customers of the bank, while point quotations are usually employed for traders.

A forward premium or discount is sometimes expressed in terms of the annualized percentage deviation from the spot rate. The premium or discount is computed using the following formula:

$$\text{premium (discount)} = \frac{n\text{-day forward rate} - \text{spot rate}}{\text{spot rate}} \times \frac{360}{n} \quad (5.4)$$

Applying equation 5.4 to the 90-day forward quote for Canadian dollars given in example 5.5, we obtain:

$$\text{forward discount} = \frac{\$0.7900 - \$0.8000}{\$0.8000} \times \frac{360}{90} = -0.05 \text{ or } -5.00\%$$

Applying equation 5.4 to the 90-day forward quote for Swiss francs given in example 5.5, we obtain:

$$\text{forward premium} = \frac{\$0.6000 - \$0.5800}{\$0.5800} \times \frac{360}{90} = +0.1379 \text{ or } +13.79\%$$

FORWARD EXCHANGE QUOTATION

3. **Trader use** forward exchange transactions to eliminate possible exchange losses on foreign-currency denominated obligations (**export or import order**).
4. **Speculating in the spot market:**
Speculators buy a foreign currency at today's spot rate, will hold it for some time, and will resell it at a higher spot rate.
5. **Speculating in the forward market:**
Speculators buy a foreign currency forward today, will hold it for some time, and will resell it at a **higher spot rate**.

INTERNATIONAL PARITY CONDITIONS

There are **five** major **theories** of exchange rate determination:

1. The theory of purchasing power parity (PPP)
2. The Fisher effect
3. The international Fisher effect
4. The theory of Interest rate parity
5. The **forward rates** as an unbiased predictors of the **future spot rate**

INTERNATIONAL PARITY CONDITIONS

1. The theory of purchasing power parity (PPP):

a) PPP explains why the parity relationship exists between inflation rates and exchange rates. PPP maintains that the **equilibrium exchange rate between domestic and foreign currencies equal the ratio between domestic and foreign prices.**

b) The **spot rate** for the currency of a country with a **higher inflation** than its trading partner will **depreciate in the long run.**

$$e_t / e_0 = (1 + I_d)^t / (1 + I_f)^t \quad (5.5)$$

Where:

e_t is the dollar price of one unite of foreign currency in period t (exchange rate),

e_0 is the dollar price of one unite of foreign currency in period 0,

I_d is the domestic inflation rate

I_f is the foreign inflation rate

INTERNATIONAL PARITY CONDITIONS

2. **The Fisher* effect:** a higher inflation causes a higher nominal rate because:

$$(a) \text{ nominal rate} \uparrow = \text{real rate} + \text{expected rate of inflation} \uparrow \quad (5.7)$$

(in each country)

and

(b) real rate is constant.

a. Real interest rates should tend toward equality everywhere in the world.

b. Real interest rate in each country is thought to be stable over time.

c. Points a and b indicate that the nominal interest rate differs from country to country because of differences in inflation rates.

* Economist Irving Fisher

INTERNATIONAL PARITY CONDITIONS

- 3. The international Fisher effect:** states that the future **spot rate** should move in an amount equal to, but in opposite direction from, the difference in **interest rate** between two countries.
- a. The **spot rate** for the currency of a country with a **higher (lower)** interest rate than its trading partner will **depreciate (appreciate)** in the **long run**. (Risk due to fluctuation in the value of the foreign currency prior to maturity).
 - b. But the **spot rate** for the currency of a country with a **higher** interest rate than its trading partner will **appreciate** in the **short run**.

INTERNATIONAL PARITY CONDITIONS

4. The theory of Interest rate parity:

states that the **spread** between a forward rate and spot rate should be equal to, but in opposite in sign to the difference in **interest rate** between two countries.

The **forward rate** for the currency of a country with a **higher interest rate** than its trading partner will **fall**, thereby resulting in a **forward discount** (in free market).

$$(n\text{-day } F - S / S) \uparrow \times (360 / n) = (i_d - i_f) \uparrow \quad (5.8)$$

Where n-day F is the n-day forward rate, S is the spot rate, i_d is the domestic interest rate, and i_f is the foreign interest rate

INTERNATIONAL PARITY CONDITIONS

$$(\text{n-day } F - S / S) \times (360 / n) = i_d - i_f \quad (5.8)$$

If $i_d - i_f < 0$ discount and $(\text{n-day } F - S) < 0$

If $i_d - i_f > 0$ premium and $(\text{n-day } F - S) > 0$

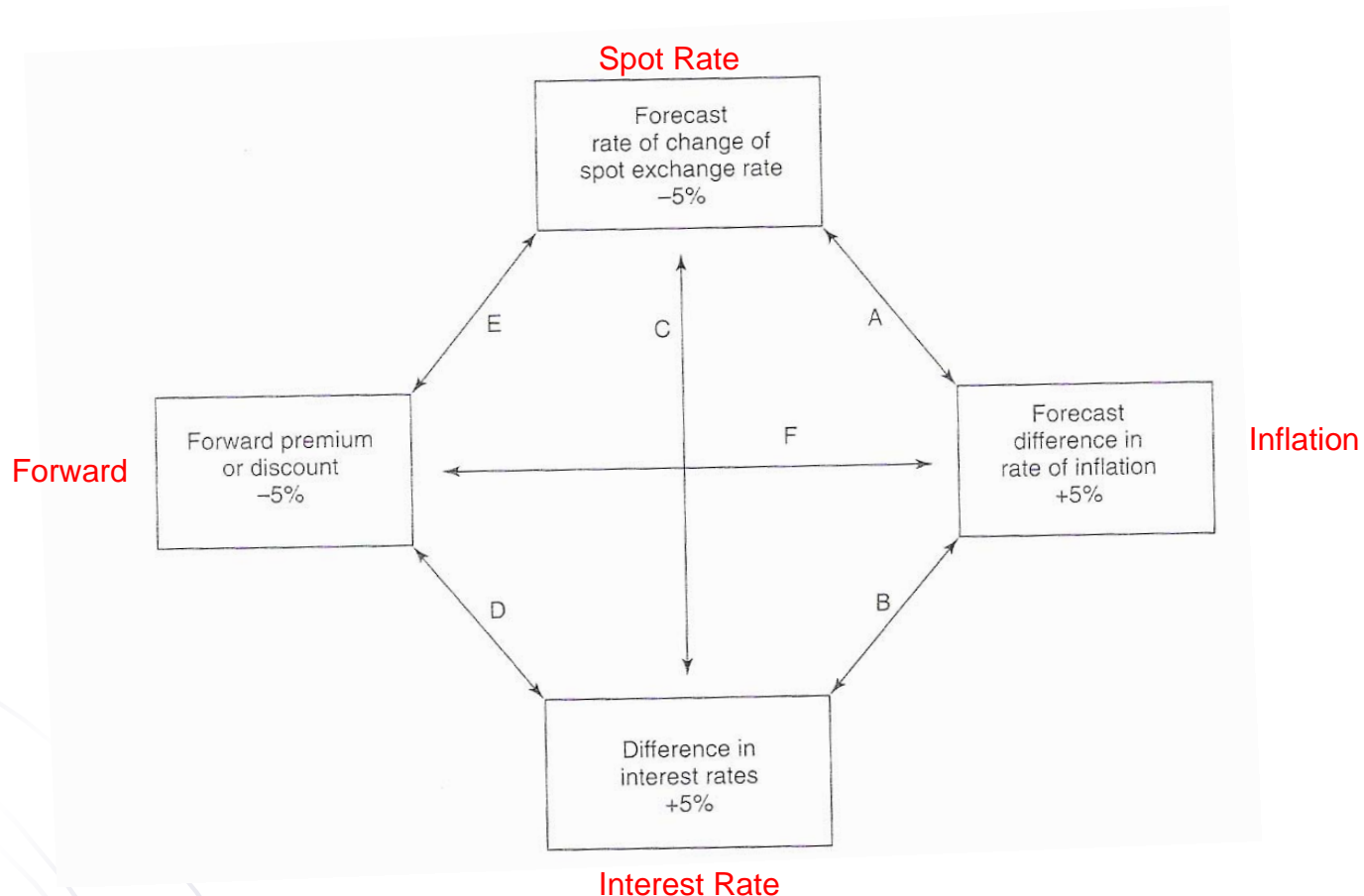
INTERNATIONAL PARITY CONDITIONS

5. If the above four theories hold, then forward rates will be unbiased (fair) predictors of future spot rate (means if there is no longer any incentive to buy or sell a foreign currency forward).



Relationships among various financial rates

Figure 5.4



- A- The theory of purchasing power parity (PPP)
- B. The Fisher effect
- C. The international Fisher effect
- D. The theory of Interest rate parity
- E. The forward rates as an unbiased predictors of the future spot rate
- F. none

ARBITRAGE

- **Arbitrage** (is the purchase of something in one market and its sale in another market to take advantage of price differential)
- **Geographical Arbitrage** (demand and Supply)
 - **Two – point Arbitrage** (two currencies)
 - **Three – Point Arbitrage**
(three currencies, Rs60.0/\$1.0, Rs10.0/HK\$1.0, HK\$3.0/\$1.0)
- **Covered – interest arbitrage**

COVERED INTEREST ARBITRAGE

- 1. Definition:** the movement of short-term funds between countries to take advantage of interest differentials with exchange risk covered by forward contracts.
- 2. Interest parity line indicates** that there are no incentives for arbitrage transactions because on this line, the interest differential is equal to the forward premium or discount.

COVERED INTEREST ARBITRAGE

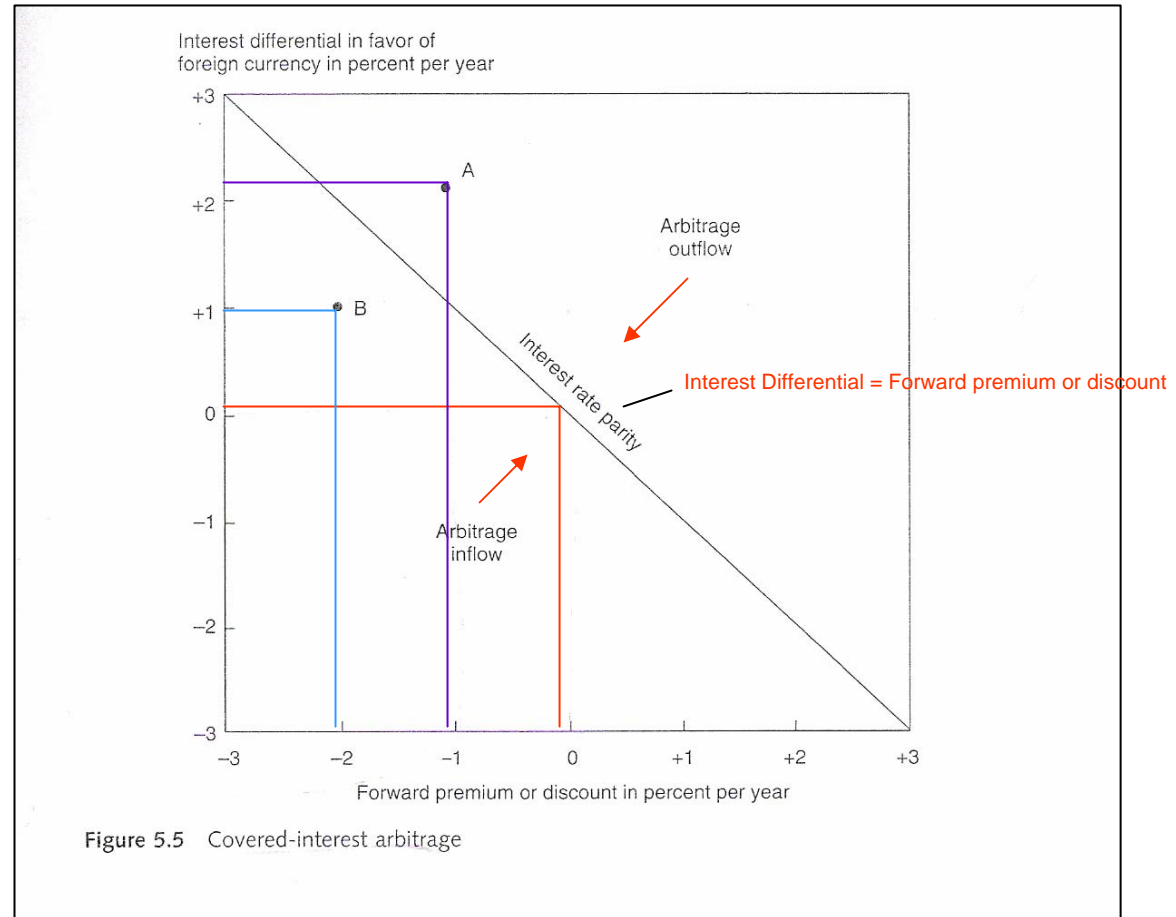
Point A

1) USA 5%, Japan 6% and
Forward discount = 1%

2) Foreign interest rate is 2% higher
than the domestic, in this case the
arbitrageur could employ the so-called
covered-interest arbitrage to make profit

Earn = 2% in Foreign Security
Loss = 1% in Foreign Currency
Profit = 1%

- Buying spot foreign currency
with domestic currency
- investing the foreign currency
in security foreign
- selling the foreign currency
in forward market



COVERED INTEREST ARBITRAGE

3. Any point above the parity line such as point A has the two features:

a. Borrow money in the home country, which is the first step in the arbitrage process.

b. Arbitrage outflows, which means money will move from the home country to the foreign country (invest in foreign country).

COVERED INTEREST ARBITRAGE

4. Any point below the parity line such as point B has the two features:

a. Borrow money in the foreign country.

b. Arbitrage inflows (funds would move from the foreign country to the home country).

COVERED INTEREST ARBITRAGE

Example 5-12:

Interest differential = 2%

Forward discount = 1%

- a. Steps 1 and 2 will increase the forward discount of 1% toward 2%.**
- b. Steps 3 and 4 will reduce the interest differential of 2% toward 1%.**
- c. Thus, the forward discount and the interest differential will meet somewhere between 1% and 2%, which will be a point on the interest parity line.**

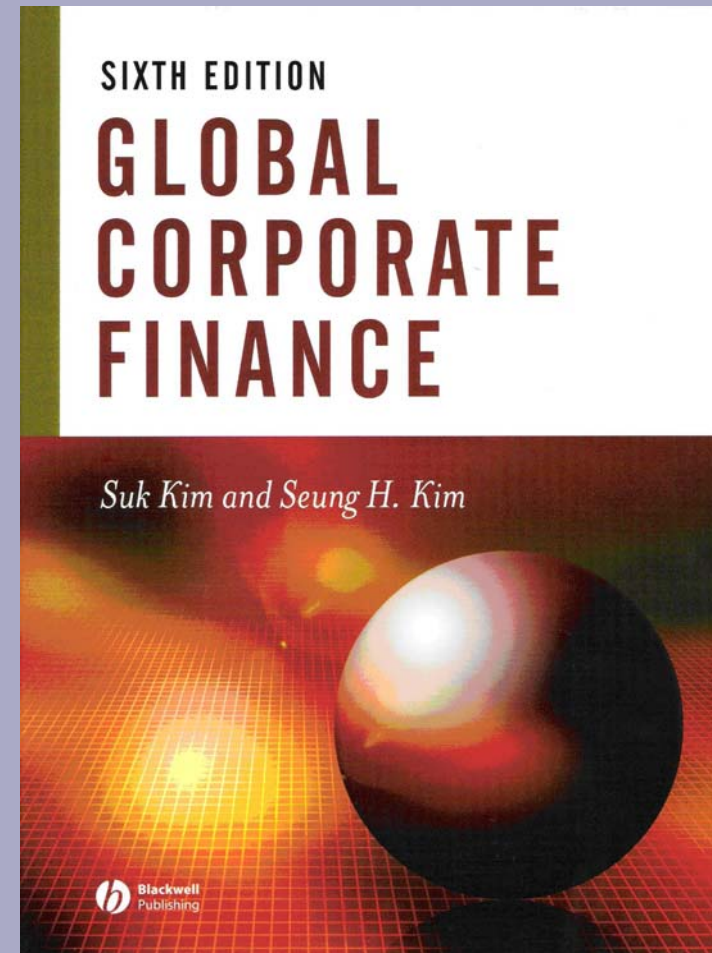
INTERNET EXERCISES



- Use < <http://www.onanda.com> > to find the latest quotes for the US dollar, euro, pound, and the yen. By how much did these currencies rise or fall against the dollar in the last day.
- Find the currency cross rates provided by **Bloomberg** <<http://www.bloomberg.com>> for the euro/dollar and euro/yen. Use the above cross rates to calculate the dollar/yen rate and then compare your calculated dollar/yen cross rate to the one reported by Bloomberg. Are the two cross rates the same?
- What is the euro worth?
- The European Union <<http://www.europa.eu.int>> provides a daily tracking of the euro's value in terms of its constituent currencies. Use their web address to find out how many Spanish pesetas the euro is worth today. What explanations have been given for the decline of the euro in the first two years of existence?
- Using the websites of The Wall Street Journal <<http://www.wsj.com>>, Financial Times <<http://www.ft.com>> and The Economist <<http://www.economist.com>>, identify two countries that are having currency problems. Can you explain the causes of these currency problems?

CHAPTER 6

CURRENCY FUTURES AND OPTIONS



Chapter 6 Major Sections

- **Section 1, The Currency Futures Market**
 - **Section 2, The Currency Options Market**
 - **Section 3, Future Options**
- 

GLOBAL FINANCE

Opening Case 6 (Derivatives Risks)

- How long it took a son to lose \$150 million if foreign exchange trading?
- Futures, option, and swaps are supposedly hedging instruments designed to alleviate or eliminate a variety of risks.

Globalization

- **Global Finance in Action 6.1** (More Bang for Your Buck in Currency Trading)
- **Potential of CME (Chicago Mercantile Exchange) foreign – currency**
 - They are volatile
 - CME currency contract trend well year after year
 - Can take advantage of opportunities in the market with limited risk

THE CURRENCY FUTURES MARKET

Market Operations:

1. **A currency futures contract** is a contract to buy or sell a specified amount of a foreign currency for delivery at some future date (**CME** (Chicago Mercantile Exchange) **futures contract** matures on only 4 days of the year ; 3rd Wednesday of March, June, September and December)
2. **Margin requirement**
 - a. **Margin** is some sort of deposit to ensure that each party fulfills its commitment.
 - b. **Initial Margin** is the amount market participants must deposit at the time of a futures contract.
 - c. **Maintenance margin** is a fixed minimum margin customers must maintain in their account all the time, and it is about 70-80% of the initial margin.
 - d. **Margin calls** are requests for additional deposits.

THE CURRENCY FUTURES MARKET

3. Positions

- a. Short position:** is an agreement to **sell** a futures contract. If an American has yen **receivables**, she is likely to have a short position.
- b. Long position:** is an agreement to **buy** a futures contract. If an American has yen **payables**, he is likely to have a long position.

THE CURRENCY FUTURES MARKET

- 4. Three major differences between futures and forwards** (page 152 in the text book):
- a. Futures** are available in a predetermined amount, have four maturity dates per year, and are handled by exchanges (Chicago Mercantile Exchange).
 - b. Forwards** are available in any amount tailored to customer needs, mature on any date, and are handled by banks (OTC: over-the-counter).

THE CURRENCY OPTIONS MARKET

1. **Currency option** is the right to buy (call) or sell (put) a specified amount of a foreign currency at some future date.
 - A **currency call option** gives the buyer the right, but not the obligation, to **buy** a particular foreign currency at a specified price at any time during the life of option.
 - A **currency put option** gives the buyer the right, but not the obligation, to **sell** a particular foreign currency at a specified price at any time during the life of option.
 - The **strike price**, or the **exercise price**, is the price at which the buyer of an option has the right to buy or sell an underlying currency
2. **Total value (option premium) = purchase price = intrinsic value + time value (6.1)**

THE CURRENCY OPTIONS MARKET

3. **Intrinsic value (IV)** is the difference between exchange rate and strike price but cannot be lower than zero (0).
 - a. **In the money**: If options have **positive IV** from investors' viewpoints, they are in the money.
 - b. **At the money**: If options have **zero IV** from investors' viewpoints, they are at the money.
 - c. **Out of the money**: If options have **negative** (theoretical or mathematical) **IV** from investors' viewpoints, they are out of the money
4. **The time value** is the amount of money that options buyer are willing to pay for an option in the anticipation that over time a change in the underlying spot rate will cause the option to increase in value.

THE CURRENCY OPTIONS MARKET

5. Value of Volatility : volatility measures the fluctuation in price over a given period of time.

a. Volatility affects both **time value** and **intrinsic value**.

b. Volatile currency options have higher premiums.

Options premiums are always higher than the intrinsic value, because of the time value and value of volatility.

THE CURRENCY OPTIONS MARKET

Currency CALL/PUT Options

$$\text{Option (premium)} = \text{total value (premium)} = IV + TV \quad (6.2)$$

Where:

Intrinsic value (IV) is the difference between exchange rate and strike price but cannot be lower than zero (0).

The time value (TV) is the amount of money that options buyer are willing to pay for an option in the anticipation that over time a change in the underlying spot rate will cause the option to increase in value.

$$\text{BUY (CALL), Profit (loss)} = \text{Spot Rate} - (\text{Strike Price} + \text{Premium}) \quad (6.2)$$

$$\text{SELL (PUT), Profit (loss)} = \text{Strike Price} - (\text{Spot Rate} + \text{Premium}) \quad (6.3)$$

THE CURRENCY OPTIONS MARKET

Numerical Example

1. On October 23, the closing exchange rate of British pounds was \$1.70. Calls which would mature the following January with a strike price of \$1.75 were traded at \$0.05.

THE CURRENCY OPTIONS MARKET

2. If the exchange rate of British pounds rises to \$1.82 prior to the January option expiration date, what is the percentage return on investment for an investor who purchased a call on October 23?

$$(1.82 - 1.75 - 0.05) / 0.05 = 0.40 \text{ or } 40\%$$

3. What is the break-even exchange rate for British pounds?

Break-even point = $1.75 + 0.05 = \$1.80$ per pound.

THE CURRENCY OPTIONS MARKET

1. Were the call options in the money, at the money, or out of the money?

$$\begin{aligned}\text{Mathematical or theoretical value} &= \\ (\text{Difference between exchange rate and strike price}) &= \\ &= \$1.70 - \$1.75 \\ &= - \$0.05\end{aligned}$$

Thus, these call options were **out of the money**.

2. **Compute the intrinsic value.** Why was the premium of the call option higher than the intrinsic value?

The intrinsic value is zero because all the investor has to do for the out-of-the money options is to let them expire unexercised. The call premium (\$0.05) was higher than the intrinsic value (\$0.00) because of the time value and the value of volatility.

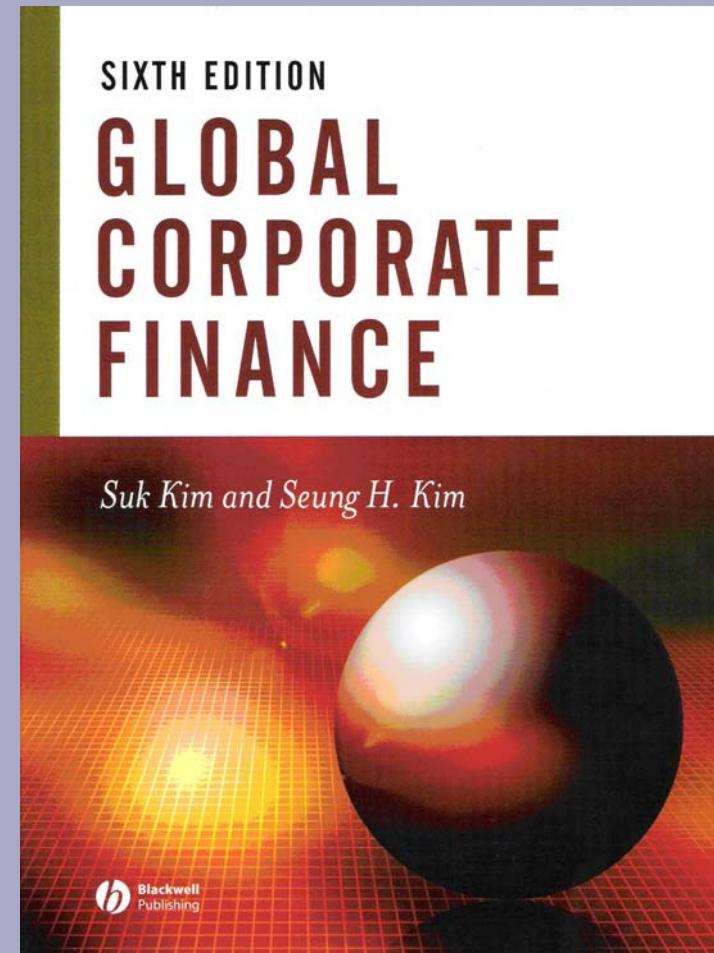
INTERNET EXERCISES



- What currency futures contracts are currently being traded on the CME [<http://www.cme.com>](http://www.cme.com)? Have currency future prices generally risen or fallen in the past day? Is there any news today that might explain the change in the futures prices?
- Use the New York Federal Reserve website [<http://www.ny.frb.org/pihome/statistics/vrate.shtml>](http://www.ny.frb.org/pihome/statistics/vrate.shtml) to obtain the currency volatilities over the past week and month for the Canadian dollar and the yen. Keep in mind that currency volatilities are the expected standard deviation of the daily spot rate for the coming period of the option's maturity. Are these implied volatilities generally higher or lower for longer maturity contracts.

CHAPTER 7

FINANCIAL SWAPS



Chapter 7 Major Sections

- **Section 1, The Emergence of the Swap Market**
 - **Section 2, Two Major Types of Financial Swap**
 - **Interest Rate Swaps and**
 - **Currency Swaps**
 - **Section 3, Evaluate Motivations for Swaps**
- 

GLOBAL FINANCE

- **Currency Derivatives (Forwards, Futures, Options, Futures Options and Swaps)**
- **Opening Case 7: Why have Gillette and GE chosen a Higher Cost of Funding?**
 - Gillette's action exemplifies the fact that companies will frequently choose a costlier option to avoid government regulations
 - The FABS 133 standard requires companies to reports the fair market value of their derivatives in their balance sheets and to include derivatives gains and losses in their income statements

Globalization

- **Global Finance in Action 7.1** (Off Balance – Sheet Operation and New Regulation; FABS 133)
- **Global Finance in Action 7.2** (Companies Use Swaps to Save Money and Diversify their Funding Sources)
- **Proper risk management (Is derivatives safer than bonds?)**
 - Identify where the risk lie
 - Design an appropriate strategy for managing them and
 - Select the right tools to execute the strategy

THE ORIGINS OF THE SWAP MARKET

Currency swap market developed in late 1970 to evade British controls on movement of foreign currency (imposing tax)

1. A **parallel loan** is a loan which involves an exchange of currencies between four parties, with a promise to re-exchange the currencies at a predetermined exchange rate at some future date.
2. A **back-to-back loan** is identical with the parallel loan except the fact that it involves only two parties rather than four parties. Financial swaps are usually regarded as an outgrowth of parallel and back-to-back loans (simple modification of a parallel loan).
3. A **swap** is an agreement between two parties that exchanges sets of cash flows over a period of time in the future (natural extension of back-to-back loan).

THE ORIGINS OF THE SWAP MARKET

The structure of a Parallel loan

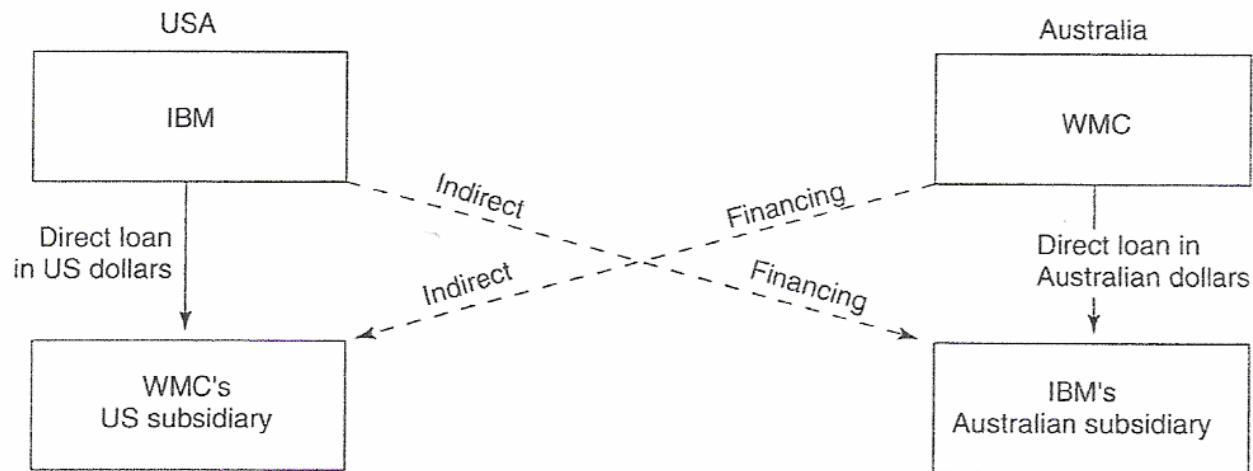


Figure 7.1 The structure of a parallel loan

THE ORIGINS OF THE SWAP MARKET

Drawbacks of parallel loans:

- a. It is difficult to find counterparties with matching needs.**
- b. One party is still obligated to comply with such an agreement even if another party fails to do so.**
- c. Such loans show up on the books of the participating parties.**

PLAIN VANILLA SWAPS

- The **plain vanilla swap** is the simplest kind of a swap. Two forms of a plain vanilla swaps are **interest rate swaps** and **currency swaps**.
- **Swap banks:** is a generic term used to describe a financial institution that assist in the completion of a swap.
 - A counterparty to both end-users
 - Broker acts as an agent between buyers and sellers
 - Dealer actually transacts for its own account to help complete the swap.

PLAIN VANILLA SWAPS FORMS

1. Interest rate swap:

- Interest rate swap is an agreement between two parties to exchange interest payments.
- Two parties agree to exchange cash flows of a fixed rate for cash flows of a floating rates or exchange cash flows of a floating rate for cash flows for a fixed rates.
- Notional principal is the principal value on which interest payments are based.
- Parties A and B may agree on a swap in the same country with the same currency, in the two different countries with the two different currencies, and in other variants.

PLAIN VANILLA SWAPS FORMS

- **Example 7.1**

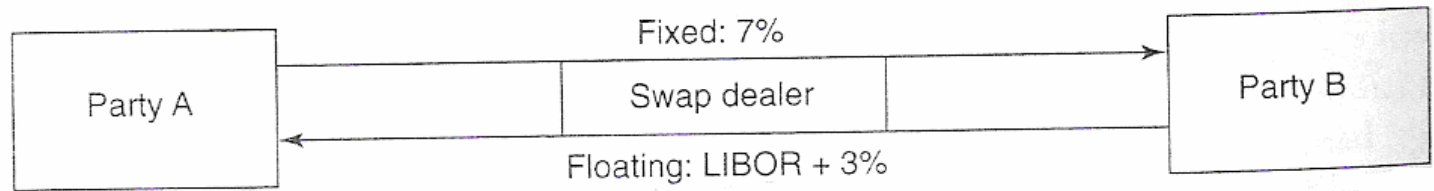


Figure 7.2 An interest rate swap

LIBOR = London Inter Bank Offer Rate

PLAIN VANILLA SWAPS

2. **Currency swaps** usually involves three sets of cash flows:

- **Spot transaction: two parties swap two currencies now.**
- **Only net interest payments are made.**
- **Forward transaction: two parties re-swap the two currencies in the future.**

PLAIN VANILLA SWAPS

- Example 7.2

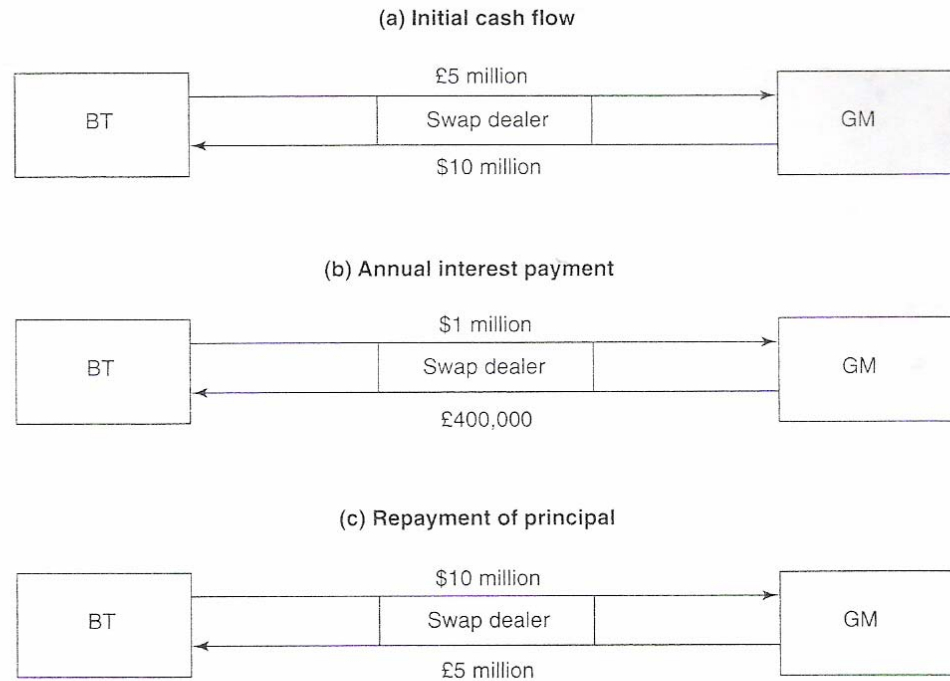


Figure 7.3 A currency swap

MOTIVATIONS FOR SWAPS

The are three basic motivations for swaps

- **Currency risk management**
 - **Commercial needs**
 - **Comparative Advantage**
- 

MOTIVATIONS FOR SWAPS

- 1. Currency risk management: companies use currency swaps to **eliminate currency risks** arising from overseas commercial operations**
 - a. General Motors (GM) has yen accounts receivable (AR).**
 - b. Toyota has dollar accounts receivable.**
 - c. GM and Toyota swap yen and dollars with each other.**

MOTIVATIONS FOR SWAPS

2. Commercial needs (for example mortgage company):
 - a. The swap may be used to **eliminate the interest rate risk**. Assume a company has fixed rate assets and floating rate liabilities. If interest rates rise, this company will face the interest rate risk.
 - b. The company can eliminate the interest rate risk by
 - (1) transforming fixed rate assets into floating rate assets and
 - (2) transforming floating rate liabilities into fixed rate liabilities.

MOTIVATIONS FOR SWAPS

- 3. Comparative Advantage: in many instance one company may borrow money at a lower rate of interest in the capital market than another firm.**
- a. GM borrows dollars at a lower rate and transfers the funds to a British firm.**
 - b. British firm borrows pounds at a lower rate and transfer the funds to GM.**
 - c. This swap is possible because of market imperfections or different risks.**

MOTIVATIONS FOR SWAPS

- Example 7.4

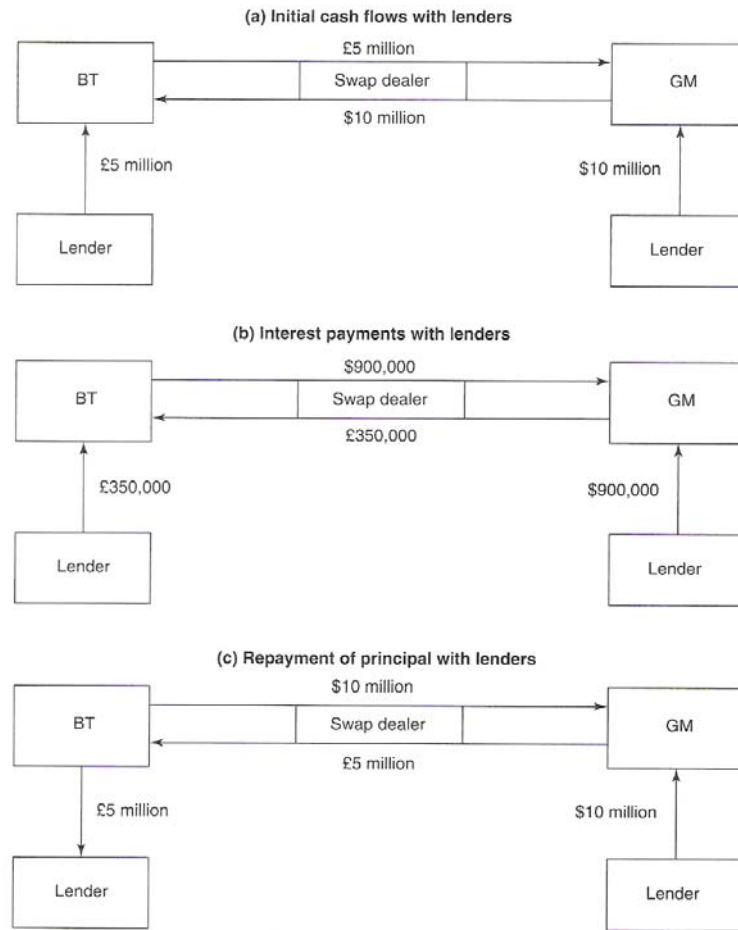


Figure 7.5 Motivation for the currency swap

INTERNET EXERCISES

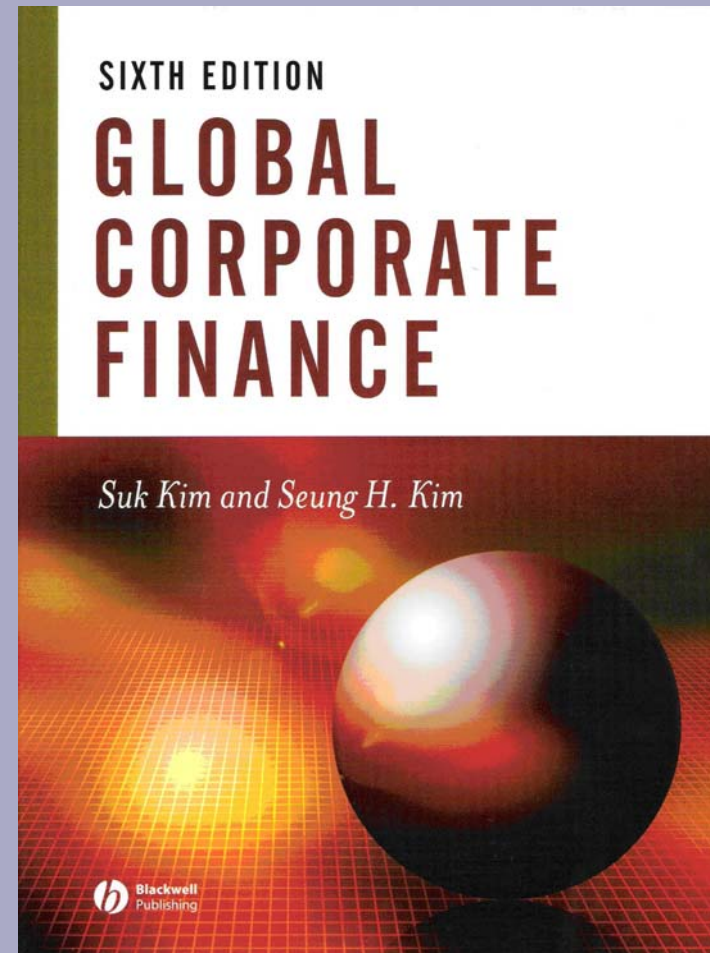


- The ISDA <<http://www.isda.org>> is the primary global organization that attempts to both standardize the use of interest rate and cross-currency swaps and track the market's size. Use ISDA's web site to find out which type of interest rate derivative is growing the fastest, the plain vanilla interest rate swap, the cross currency swap, or the various types of interest rate options.

- What country risk factors do Moody's <<http://www.moody.com>> and Standard and Poors <<http://www.standardpoors.com>> emphasize? How can one company use risk factors when it decides whether to engage in a swap agreement with a foreign company?

CHAPTER 8

EXCHANGE RATE FORECASTING



Chapter 8 Major Sections

- **Section 1, Measuring a change in exchange rates**
- **Section 2, Forecasting the needs of a multinational company (MNC)**
- **Section 3, Forecasting floating exchange rates**
- **Section 4, Forecasting fixed exchange rates**

GLOBAL FINANCE

- **Opening Case 8: Mundell Wins Nobel Prize in Economics**
 - **When money can move freely across borders policy-makers must choose between:**
 - **exchange rate stability and**
 - **an independent monetary policy**

- **Globalization**
 - **Global Finance in Action 8.1 (Tracking the US Dollar)**
 - **The market consists of:**
 - **worldwide cast of business,**
 - **investors,**
 - **speculators,**
 - **governments and**
 - **central banks**
 - **Acting and reacting on the basis of a mix of forces such as:**
 - **trade patters,**
 - **interest rate differentials,**
 - **capital flows and**
 - **international relations**

MEASURING EXCHANGE RATE CHANGES

Measuring a percentage change in rates:

a. Direct quote:

$$\% \text{ change} = (e_1 - e_0) / e_0 \quad (8.1)$$

b. Indirect quote:

$$\% \text{ change} = (e_0 - e_1) / e_1 \quad (8.2)$$

Where:

e_0 is the beginning rate and
 e_1 is the ending rate

Example 8.1

Assume that the exchange rate for the Swiss franc changed from \$0.64 on January 1 to \$0.68 on December 31. In this case, the percentage change in the exchange rate for the franc against the dollar can be expressed in two different ways, but they have the same meaning. From a franc perspective, we can say that the franc's value against the dollar appreciated from \$0.64 to \$0.68. From a dollar perspective, we can say that the dollar's value against the franc depreciated from \$0.64 to \$0.68.

The percentage change in the spot rate for the franc (a foreign currency) can be computed by using equation 8.1:

$$\text{percentage change} = \frac{\$0.68 - \$0.64}{\$0.64} = +0.0625$$

Alternatively, the percentage change in the spot rate for the dollar (a domestic currency) against the foreign currency can be computed by using equation 8.2:

$$\text{percentage change} = \frac{\$0.64 - \$0.68}{\$0.68} = -0.0588$$

Thus, a change in the exchange rate from \$0.64 to \$0.68 is equivalent to a franc appreciation of 6.25 percent or a dollar depreciation of 5.88 percent. It is important to note that the two exchange rate changes are not equal to each other. The amount of franc appreciation is not equal to the amount of dollar depreciation, because the value of one currency is the inverse of the value of the other currency. In other words, the percentage change in the exchange rate differs because the base rate from which it is measured differs.

FORECASTING NEEDS OF THE MULTI NATIONAL COMPANY

Virtually all aspects of MNCs may be influenced by changes in exchange rates.

They include the:

- **hedging decision,**
- **working capital management,**
- **long-term investment analysis,**
- **long-term financing decision, and**
- **other decisions.**

FORECASTING FLOATING EXCHANGE RATES

- 1. Currency forecasting and market efficiency**
 - 2. Fundamental analysis**
 - 3. Technical analysis**
 - 4. Market – based forecasts**
 - 5. The evaluation of exchange forecast performance**
- 

1. EFFICIENT EXCHANGE MARKETS

1. Assumptions for efficient exchange markets are:

- a. Very large number of sellers and buyers**
- b. Standard product**
- c. Given price**
- d. Free entry into and exit out of the market.**

1. EFFICIENT EXCHANGE MARKETS

2. Consequences:

- a. Spot rates** reflect all current information and will change in response to "**random news.**"
- b. Impossible for any market analyst to consistently beat the market.**
- c. All currencies are fairly priced.**

1. EFFICIENT EXCHANGE MARKETS

3. Forms of Efficient Exchange Market

- a. Weak-form efficiency: historical data is useless.**
- b. Semi-strong form efficiency: current information is useless.**
- c. Strong-form efficiency: inside information is useless.**

1. EFFICIENT EXCHANGE MARKETS

4. If foreign exchange markets are perfectly efficient, exchange rate forecasting is impossible because:

All currencies are fairly priced and exchange rates will change in response to "random news."

2. FUNDAMENTAL ANALYSIS

- a. Fundamental analysis depends on fundamental economic conditions, such as inflation rate, interest rate, and the rate of growth in money supply.**
- b. Examples of this techniques are PPP and multiple regression analysis.**

2. *FUNDAMENTAL ANALYSIS*

The Theory of Purchasing Powering Parity (PPP)

$$e_t = e_0 \times (1 + I_d)^t / (1 + I_f)^t \quad (8.3)$$

Where:

- e_t is the dollar price of one unite of foreign currency in period t (exchange rate),
- e_0 is the dollar price of one unite of foreign currency in period 0,
- I_d is the domestic inflation rate, and
- I_f is the foreign inflation rate

Example 8.2

The spot rate is \$0.73 per Australian dollar. The USA will have an inflation rate of 3 percent per year for the next 2 years, while Australia will have an inflation rate of 5 percent per year over the same period. What will the US dollar price of the Australian dollar be in 2 years?

Using equation 8.3, the US dollar price of the Australian dollar in 2 years can be computed as follows:

$$e_2 = \$0.73 \times \frac{(1 + 0.03)^2}{(1 + 0.05)^2} = \$0.7025$$

Thus, the expected spot rate for the Australian dollar in 2 years is \$0.7025.

2. FUNDAMENTAL ANALYSIS

Multiple Regression Analysis

$$PP = b_0 + b_1 I + b_2 M + b_3 N + \mu \quad (8.4)$$

*PP is forecast percentage change in a given currency,
I is inflation rate differentials,
M is differential in the rate of growth in money supply,
N is differential in national income growth rates, and
 b_0, b_1, b_2, b_3 , are regression coefficients, and
 μ is error term.*

2. FUNDAMENTAL ANALYSIS

Multiple Regression Analysis

Example 8.3

Assume the following values: $b_0 = 0.001$, $b_1 = 0.5$, $b_2 = 0.8$, $b_3 = 1$, $I = 2$ percent (the inflation rate differential during the most recent quarter), $M = 3$ percent (the differential in the rate of growth in money supply during the most recent quarter), and $N = 4$ percent (the differential in national income growth rates during the most recent quarter).

The percentage change in the British pound during the next quarter is

$$\begin{aligned} PP &= 0.001 + 0.5(2\%) + 0.8(3\%) + 1(4\%) \\ &= 0.1\% + 1\% + 2.4\% + 4\% \\ &= 7.5\% . \end{aligned}$$

Given the current figures for inflation rates, money supply, and income growth rates, the pound should appreciate by 7.5 percent during the next quarter. The regression coefficients of $b_0 = 0.001$, $b_1 = 0.5$, $b_2 = 0.8$, and $b_3 = 1$ can be interpreted as follows. The constant value, 0.001, indicates that the pound will appreciate by 0.1 percent when the United States and the United Kingdom have the same inflation rate, the same growth rate in money supply, and the same growth rate in national income. If there are no differentials in these three variables, I , M , and N are equal to zero. The value of 0.5 means that each 1 percent change in the inflation differential would cause the pound to change by 0.5 percent in the same direction, other variables (N and M) being held constant. The value of 0.8 implies that the pound changes by 0.8 percent for each 1 percent change in the money supply differential, other variables (I and N) being held constant. The value of 1 indicates that the pound is expected to change by 1 percent for every 1 percent change in the income differential, other variables (I and M) being held constant.

3. TECHNICAL ANALYSIS

- a. Technical analysis depends on past prices and volume movements.**
- b. Examples of this technique are charting and mechanical rules.**

3. TECHNICAL ANALYSIS

Charting & Mechanical rules

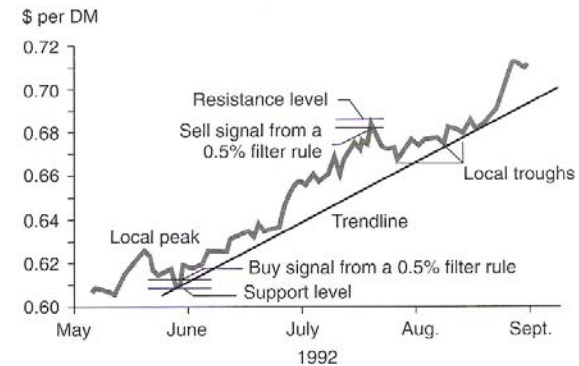


Figure 8.1 Technical analysis: charting and the filter rule; peaks, troughs, trends, resistance, and support levels illustrated for the \$/DM

Source: C. J. Neely, "Technical Analysis in the Foreign Exchange Market: A Layman's Rule," *Review*, Federal Reserve Bank of St. Louis, Sept./Oct. 1997, p. 24.

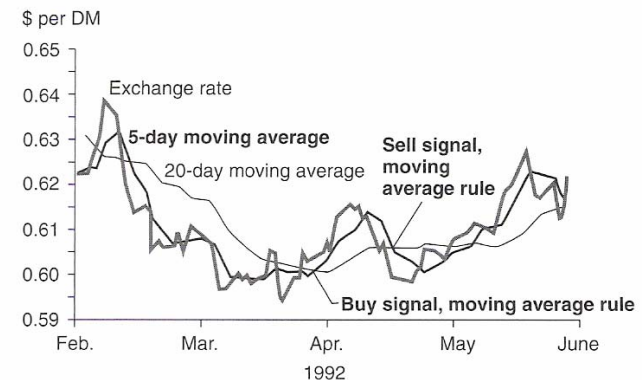


Figure 8.2 Technical analysis: moving-average rule (5- and 20-day moving averages)

Source: C. J. Neely, "Technical Analysis in the Foreign Exchange Market: A Layman's Rule," *Review*, Federal Reserve Bank of St. Louis, Sept./Oct. 1997, p. 24.

4. MARKET-BASED FORECASTS

- a. A market-based forecast is a forecast based on market indicators such as forward rates.**
- b. Examples of this technique are spot rates, forward rates, and interest rates.**
- c. Forecasting horizons are a few days for spot rates, a few months for forward rates, and a few years for interest rates.**

4. MARKET-BASED FORECASTS

Spot Rates and Forward Rates

Example 8.4

The spot rate is \$0.8000 per Canadian dollar. The 90-day forward discount for Canadian dollars is 5 percent. What is the expected spot rate in 90 days?

To solve this problem, use equation 5.4:

$$\text{premium (discount)} = \frac{n\text{-day forward rate} - \text{spot rate}}{\text{spot rate}} \times \frac{360}{n}$$

Applying equation 5.4 to the 90-day forward discount for Canadian dollars given above, we obtain:

$$\begin{aligned} -0.05 &= \frac{90\text{-day forward rate} - \$0.8000}{\$0.8000} \times \frac{360}{90} \\ \text{or } 90\text{-day forward rate} &= \$0.7900 \end{aligned}$$

4. MARKET-BASED FORECASTS

INTEREST RATES Although forward rates provide simple currency forecasts, their forecasting horizon is limited to about 1 year, because long-term forward contracts are generally non-existent. Interest rate differentials can be used to predict exchange rates beyond 1 year. The market's forecast of the future spot rate can be found by assuming that investors demand equal returns on domestic and foreign securities:

$$e_t = e_0 \frac{(1 + i_d)^t}{(1 + i_f)^t}$$

where e_t is the dollar price of one unit of foreign currency in period t , e_0 is the dollar price of one unit of foreign currency in period 0, i_d is the domestic interest rate, and i_f is the foreign interest rate.

Example 8.5

The spot rate is \$2 per pound. The annual interest rates are 10 percent for the USA and 20 percent for the UK. If these interest rates remain constant, then what is the market forecast of the spot rate for the pound in 3 years?

The market's forecast of e_3 – the spot rate in 3 years – can be found as follows:

$$e_3 = \$2 \times \frac{(1 + 0.10)^3}{(1 + 0.20)^3} = \$1.5405$$

5. THE EVALUATION OF EXCHANGE FORECAST PERFORMANCE

Forecast performance can be evaluated by measuring the forecast error as follows:

$$RSE = \sqrt{(FV - RV)^2 / RV}$$

RSE is the root square error as a percentage of realized value,

FV is the forecasted value, and

RV is the realized value

5. THE EVALUATION OF EXCHANGE FORECAST PERFORMANCE

Example 8.6

The forecasted value for the Canadian dollar is \$0.7300 and its realized value is \$0.7500. The forecasted value for the Mexican peso is \$0.1100 and its realized value is \$0.1000. What is the dollar difference between the forecasted value and the realized value for both the Canadian dollar and the Mexican peso? What is the forecast error for each of these two currencies?

The dollar difference between the forecasted value and the realized value is \$0.0200 for the Canadian dollar and \$0.0100 for the peso. This does not necessarily mean that the forecast of the peso is more accurate. When we consider the relative size of the difference, we can see that the Canadian dollar has been forecasted more accurately on a percentage basis. The forecast error of the Canadian dollar is computed as follows:

$$RSE = \sqrt{\frac{(\$0.7300 - \$0.7500)^2}{\$0.7500}} = 0.023$$

less error

The forecasted error of the peso is computed as follows:

$$RSE = \sqrt{\frac{(\$0.1100 - \$0.1000)^2}{\$0.1000}} = 0.032$$

These computations, thus, confirm the fact that the Canadian dollar has been predicted more accurately than the peso.

C\$ has been forecasted more accurately than Mex\$, because the error $0.023 < 0.032$

FORECASTING FIXED EXCHANGE RATES

Jacque (1978) suggests the following four-step sequence as a general forecasting procedure under a fixed-rate system

Step one: is to identify those countries whose balance of payments are in fundamental disequilibrium.

- **To identify these countries, one should look at:**
 - **International reserves**
 - **The balance of trade**
 - **Inflation rates**
 - **Money supply**

FORECASTING FIXED EXCHANGE RATES

Step two: is to measure the magnitude of required adjustment. The degree of required adjustment can be measured by:

- a. The application of PPP**
- b. Forward premium or discount**
- c. Free market or black market rates.**

FORECASTING FIXED EXCHANGE RATES

Step three: is to determine the timing of adjustment. The timing of adjustment depends on:


- a. The overall amount of international reserves
- b. Ability to borrow hard currencies.

FORECASTING FIXED EXCHANGE RATES

Step four: is to predict the type of corrective policies. Corrective policies include:

- a. Adopt tight monetary and fiscal policies**
 - b. Institute strict exchange controls**
- 

FORECASTING FIXED EXCHANGE RATES

- 5. A country will devalue its currency if various corrective policies prove economically ineffective or politically unacceptable.**
- 

FORECASTING FIXED EXCHANGE RATES

6. Why and how central banks intervene in currency markets?

● WHY?

- to smooth exchange rate movement
- to establish implicit exchange rate boundaries, and
- to respond to temporary disturbance

● HOW?

- Coordinate its action with other central banks or do it alone
- Enter the market aggressively to change attitudes about its views and policies
- Call for reassuring action to calm market
- Intervene to reserve, resist, or support a market trend, and
- Operate openly or indirectly through brokers

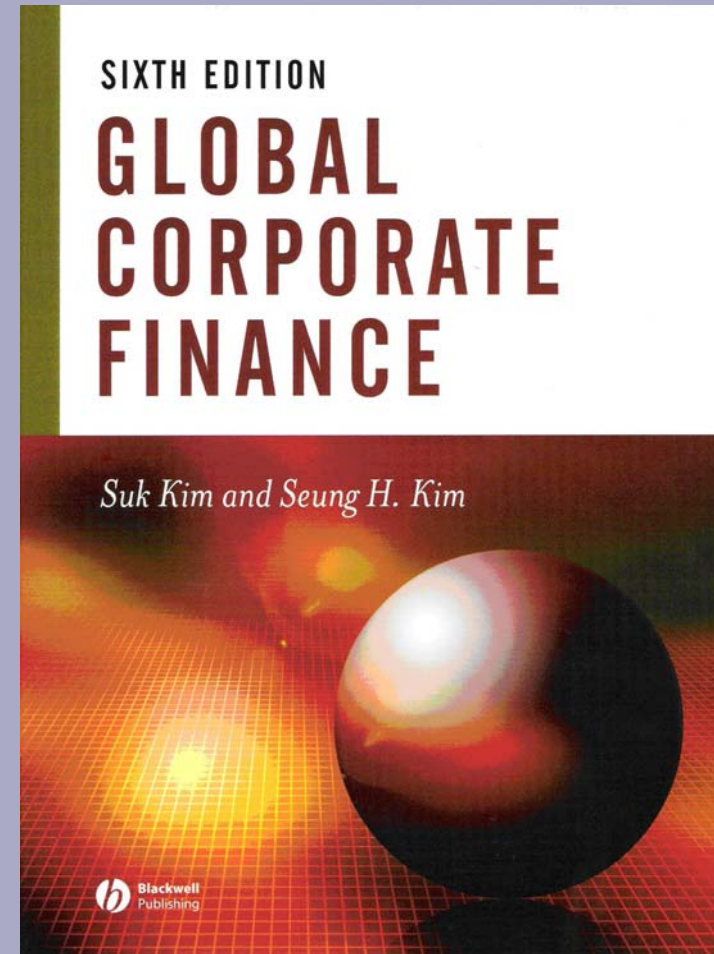
INTERNET EXERCISES



- Using OECD data <<http://www.oecd.org/std/nadata.htm>>, plot the PPP exchange rates for the Australian dollar, Mexican peso, and Saudi Rial. Have these PPP exchange rates gone up or down over time? What accounts for the changes in these PPP exchange rates over time?
- Examine forecasts from <<http://www.onada.com>> for the pound, yen, and euro.
- Which of these currencies are forecast to appreciate and which to depreciate?
- Compare these forecasts to the forward rates for the same maturity. Are the predicted exchange rates greater or less than the corresponding forward rates?
- Compare these forecasts to the actual exchange rates. How accurate were these forecasts.
- If you had followed these forecasts (by buying forward when the forecasted exchange rate exceeded the forward rate and selling forward when it was below the forward rate), would you have made or lost money?

CHAPTER - 9

MANAGING TRANSACTION EXPOSURE AND ECONOMIC EXPOSURE



Chapter 9 Major Sections

- **Section 1, Basic Nature of Foreign Exchange**
- **Section 2, How Transaction Exposure can be Measured and Hedged**
- **Section 3, How Economic Exposure can be Measured and Hedged**
- **Section 4, Use of Exchange risk Management Instruments by MNC**

Opening Case 9: Avon's Actions to Protect Against Volatile Currencies

Opening Case 9: Avon's Actions to Protect Against Volatile Currencies

Avon Products, Inc. is a global manufacturer and marketer of beauty and related products. In 1996, the Asian market accounted for 16 percent of Avon's total revenues (\$4.8 billion). This case recounts how Avon minimized its currency exposure to the Asian financial crisis of 1997—8 through the use of three hedging techniques: the balance-sheet hedge, leads and lags, and forward contracts.

First, Avon produces and sells nearly all its own products in 10 Asian countries. This strategy, known as the balance-sheet hedge, has enabled Avon to maintain the same amount of exposed assets and exposed liabilities in Asian currencies. Avon suffered neither a gain nor a loss from the Asian crisis, because devaluations of the Asian currencies affected both the company's assets and liabilities equally.

Second, when the crisis began in Thailand in July 1997, Avon had its Asian unit remit its earnings weekly rather than monthly (leads) and had, moreover, delayed its dollar payments to some Asian suppliers (lags).

Third, just before other Asian countries allowed their currencies to depreciate, Avon sold about \$50 million worth of five Asian currencies forward against the dollar for periods of up to 15 months.

Source: Fred R. Bleakly, "How US Firm Copes with Asian Crisis: Avon Moves to Protect against Volatile Currencies," *The Wall Street Journal*, Dec. 26, 1997, pp. A2, A4.

Opening Case 9: Avon's Actions to Protect Against Volatile Currencies

Three hedging techniques:

- **The balance-sheet hedge**
- **Leads and lags and**
- **Forward contracts**

TRANSACTIONS THAT ARE SAID TO BE EXPOSED

- 1. They are denominated in foreign currencies.**
 - 2. They are translated at current exchange rates.**
- 

BASIC NATURE OF FOREIGN EXCHANGE EXPOSURES

- 1. Foreign exchange exposure** refers to the possibility that a firm will gain or lose because of changes in exchange rates.

Three types of exchange exposures are:

- **translation,**
- **transaction, and**
- **economic.**

BASIC NATURE OF FOREIGN EXCHANGE EXPOSURES

2. The exchange exposure management requires an MNC to:

- (1) Develop exposure management strategy,**
- (2) Forecast the degree of exposure,**
- (3) Develop a reporting system to monitor exposure and exchange rate movements,**
- (4) Assign responsibility for hedging exposure, and**
- (5) select appropriate hedging tools.**

TYPES OF EXPOSURES

- 1. Accounting or translation exposure is the effect of an exchange rate change on financial statement items.**
- 2. Transaction exposure is the effect of an exchange rate change on outstanding obligations, such as imports and exports.**

TYPES OF EXPOSURES

3. **Economic exposure** is the effect of an exchange rate change on the net present value of expected net cash flows from direct investment projects.

Comparison of the three exposures:

Translation exposure does not involve actual cash flows, but **transaction exposure** involves actual cash outflows, and **economic exposure** involves potential cash flows.

TRANSACTION EXPOSURE MANAGEMENT FOR A US FIRM

Techniques	Pound Payables	Pound Receivables
Futures (forward)	long position (buy)	short position (sell)
Options	call	put
Futures options	call	put

TRANSACTION EXPOSURE MANAGEMENT FOR A US FIRM

- 1. Forward market hedge** involves the exchange of one currency for another at a fixed rate one on some future date to hedge transaction exposure.
- 

TRANSACTION EXPOSURE MANAGEMENT FOR A US FIRM

2. Money market hedge:

- a. If a US firm has **pound payables** from imports, the firm **borrow dollars**, converts the proceeds into pounds, buys **British Treasury bills**, and pays the import bill with the funds derived from the sale of the Treasury bills. The firm's dollar loan is not subject to exchange rate risk.
- b. If a US firm has **pound receivables**, the firm **borrow pounds**, converts the proceeds into dollars, and buys **US Treasury bills**. At maturity, the firm uses pound receivables to pay off its pound loan and redeems the Treasury bills in dollars.

TRANSACTION EXPOSURE MANAGEMENT FOR A US FIRM

3. Options-market hedge: under the **options-market hedge**, the purchase of a call option allows a US firm to lock in a maximum dollar price for its foreign currency payables; the purchase of a put option allows a US firm to lock in a minimum dollar price for its foreign currency receivables.
4. **Swap market hedge** involves an exchange of cash flows in two different currencies between two companies.
5. Use **futures or forwards** when the quantity of foreign currency cash flows is known.
Use **options** when the quantity of a foreign currency cash flows is unknown.

TRANSACTION EXPOSURE MANAGEMENT FOR A US FIRM

6. Cross hedging hedges exposure in one currency by the use of futures or other contracts on another currency that is correlated with the first currency.
7. A variety of swap agreements can be used for transaction exposure management:
 - a. **Currency swap** is a simultaneous spot and forward transaction.
 - b. **Credit swap** is a simultaneous spot and forward transaction but involves a bank.
 - c. **Interest rate swap**
 - d. **Back-to-back loans**
 - e. **Credit Swap**

EXAMPLE 9.4

- (1). The cost of direct loan is 20%.**
- (2). The cost of credit swap is 30%.**
- (3). which one to choose?**

Direct Loan

Credit Swap

$$200,000y + (1,000,000y - 4,000,000) = 200,000y + 400,000$$
$$y = 4.4$$

EXAMPLE 9.4

**If $y = 4.4$, direct loan = 1,280,000 shekels
credit swap = 1,280,000 shekels**

**Thus, both alternatives are equally costly,
but the credit swap is safer.**

**If $y = 4$, direct loan = 800,000 shekels
credit swap = 1,200,000 shekels**

**Thus, the direct loan is cheaper, but riskier
than the credit swap.**

EXAMPLE 9.4

**If $y = 5$, direct loan = 2,000,000 shekels
credit swap = 1,400,000 shekels**

**Rational decision-makers should
choose the credit swap because it is
cheaper and less risky.**

ECONOMIC EXPOSURE MANAGEMENT

- 1. Two broad hedging techniques are financial and operational.**
- 2. Problems of economic exposure management:**
 - a. Economic exposure covers the life of the project and all aspects of operations.**
 - b. The above two factors make it very difficult for MNCs to find economically justifiable financial hedging techniques, such as futures, forwards, and options.**

ECONOMIC EXPOSURE MANAGEMENT

3. Hedging Techniques

- a. **Most MNCs use operational hedging techniques known as strategic (operational) methods such as diversification in production, marketing, and financing.**
- b. **The biggest problem with the diversification strategy is the loss of economies of scale.**

CURRENCY EXPOSURE MANAGEMENT PRACTICES

- 1. The relative importance of different exchange exposures from the amount of attention given to each exposure and hedging preference for each exposure are:**
 - (1) transaction exposure,**
 - (2) economic exposure,**
 - (3) translation exposure.**
- 2. The most commonly used instrument to manage foreign exchange risks was forward contract, followed by cross-currency swaps, interest rate swaps, currency swaps, and futures.**

CURRENCY EXPOSURE MANAGEMENT PRACTICES

- 3. Financial hedging instruments, known as derivatives, such as futures, options, and swaps are generally considered safe for short-term purposes, but they are not risk-free either.**
- 

CURRENCY EXPOSURE MANAGEMENT PRACTICES

Some have incurred large-derivative related losses, which include:

Showa Shell of Japan	(\$1.54 billion in 1993),
Metallgesellschaft of Germany	(\$1.30 billion in 1994),
Barings Bank of Britain	(\$1.40 billion in 1995),
Daiwa Bank of Japan	(\$1.10 billion in 1995),
Sumitomo Corp of Japan	(\$1.80 billion in 1996),
Orange County of California, the US	(\$1.70 billion in 1994),
and	
Long-Term Capital Management of the US	(\$3.00 billion in 1998).

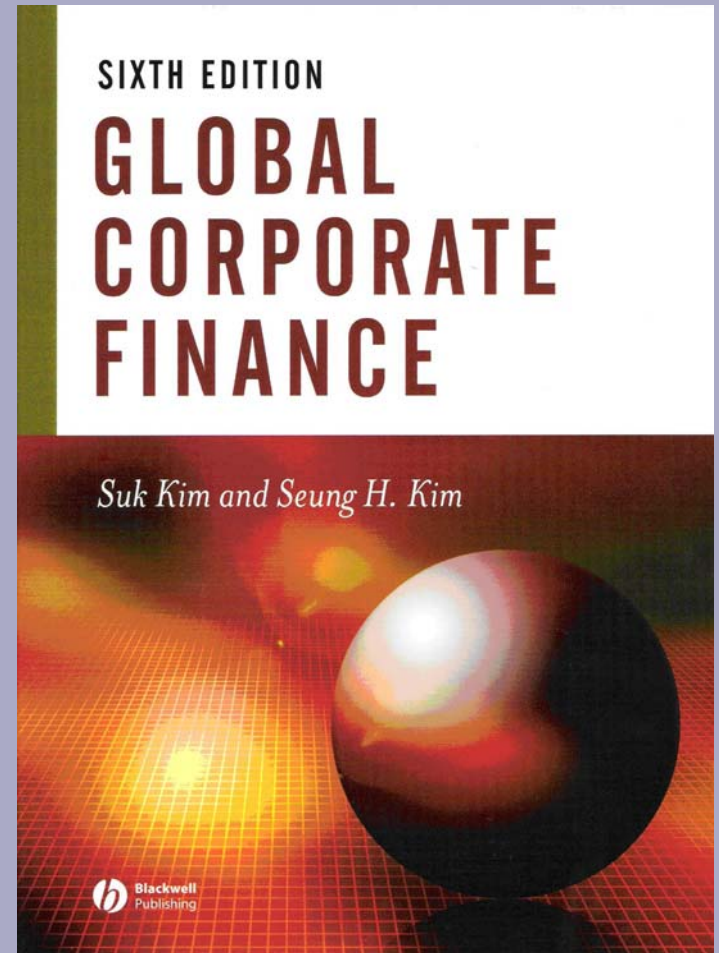
INTERNET EXERCISES



- Obtain an annual report of a major company, such as Sony Corporation, from <http://www.reportgallery.com> to answer the following questions. Are there any comments that relate to the company's transaction exposure? Does it seem that the company hedges its transaction exposure? If so, what are the methods it used to hedge its exposure?
- Visit the Web sites of GE <http://www.ge.com> and Disney <http://www.disney.com> to obtain their annual reports. Do these annual reports contain goals and objectives of their currency risk management activities?

CHAPTER 10

MANAGING TRANSLATION EXPOSURE

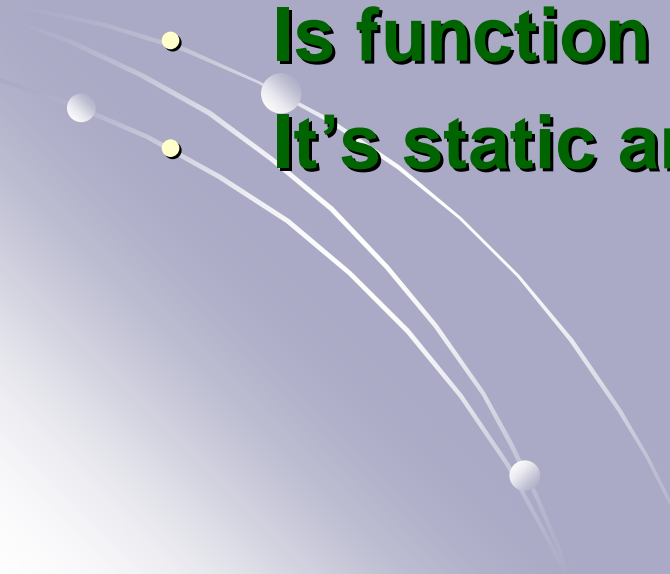


Chapter 10 Major Sections

- **Section 1, Translation Rules**
 - **Section 2, FASB # 8 and # 52**
 - **Section 3, Hedging Translation Exposure**
- 

Opening Case 10

Main features of Accounting Exposures:

- **Based on book value only**
 - **Doesn't count for exchange rate changes effect**
 - **Is function of method used in translating**
 - **It's static and historically oriented**
- 

TRANSLATION RULES

Translation exposure measures the effect of an exchange rate change on published financial statements of a firm.

- **Translation exposure affects on companies:**
 - **their ability to raise capital**
 - **the cost of capital**
 - **earning per share**
 - **stock price**
 - **key financial ratios (BUS313, MBA522)**

TRANSLATION RULES

Example 10.1

A US parent company has a single wholly owned subsidiary in Malaysia. This subsidiary has exposed assets of 100 million ringgits and exposed liabilities of 50 million ringgits. The exchange rate declines from M\$4 per dollar to M\$5 per dollar.

The potential foreign-exchange loss on the company's exposed net assets of 50 million ringgits would be \$2.5 million:

Exposed assets	M\$100 million
Exposed liabilities	<u>-50 million</u>
Net exposure	M\$ 50 million
Predevaluation rate (M\$4 = \$1)	M\$50 million = \$12.5 million
Postdevaluation rate (M\$5 = \$1)	<u>M\$50 million = -\$10.0 million</u>
Potential exchange loss	\$2.5 million

TRANSLATION RULES

- Differences between:
 - Current / non-current method,
 - Monetary / non-monetary,
 - Temporal method, and
 - Current Rate.

Item	Current Rate	Temporal	Monetary/ Nonmonetary	Current/ Noncurrent
Inventory at price	exposed	exposed	not exposed	exposed
Inventory at cost	exposed	not exposed	not exposed	exposed
Net fixed assets	exposed	not exposed	not exposed	not exposed
Long-term debt	exposed	exposed	exposed	not exposed

***Those items that are translated at historical rates are not exposed.
Those items that are translated at current rates are exposed.**

TRANSLATION RULES

● Translation Methods

- **Current / non-current** (all current assets and current liabilities of foreign affiliates are translated into the parent currency at current exchange rates. All non-current assets, non-current liabilities and owners' equity are translated at historical exchange rates).
- **Monetary / non-monetary** (monetary assets and monetary liabilities are translated at current exchange rates. Non-monetary assets, non-monetary liabilities and owners' equity are translated at historical rates). Monetary assets include cash, account receivable, note receivable. Non-monetary assets include inventory and fixed assets. In general all liabilities are monetary liabilities.
- **Temporal** (same as Monetary / non-monetary method), except under the temporal method inventory is usually translated at the historical rate, but it could be translated at the current rate if inventory is carried at market prices or at replacement costs
- **Current Rate** (simplest one all assets and liabilities are translated at current rate). Existing equity account such as common stock and paid-in-capital are translated at the historical rate.

TRANSLATION RULES

Table 10.1 Exchange rates used to translate balance-sheet items

<i>Balance-sheet accounts</i>	<i>Current/ noncurrent</i>	<i>Monetary/ nonmonetary</i>	<i>Temporal</i>	<i>Current-rate</i>
Cash	C	C	C	C
Receivables	C	C	C	C
Payables	C	C	C	C
Inventory	C	H	H or C	C
Fixed assets	H	H	H	C
Long-term debt	H	C	C	C
Net worth	H	H	H	H

Note: C represents the current rate and H represents the historical rate.

C = Current rate = Exposed

H = Historical rate = Not exposed

TRANSLATION RULES

Example 10.2

Table 10.2 A comparison of the four translation methods

<i>Accounts</i>	<i>Foreign currency</i>	1 <i>Current/ noncurrent</i>	2 <i>Monetary/ nonmonetary</i>	3 <i>Temporal</i>	4 <i>Current- rate</i>
Cash	FC100	1	\$100	1	\$100
Receivables	150	1	150	1	150
Inventory	200	1	200	2	400
Fixed assets	250	2	500	2	500
Total	FC700		\$950		\$700
Current debts	FC100	1	\$100	1	\$100
Long-term debt	300	2	600	1	300
Net worth	300	2	600	2	600
<u>Gains (losses)</u>	<u>—</u>		<u>(350)</u>		<u>(300)</u>
Total	FC700		\$950		\$700

Total Current Assets —

Total Current Liabilities —

FC= Functional Currency: Foreign or local currency

Parent Currency: Currency where the parent located

*** FASB #8 (TEMPORAL METHOD)
VS.
FASB #52 (CURRENT RATE METHOD)**

1. Two major complaints about FASB #8

(Accounting for the Translation of Foreign Currency Transactions and Foreign Currency Financial Statements, 1975) **include:**

- a. FASB #8 requires firms to show all gains and losses in their current income statement.**
- b. FASB #8 requires firms to use different rates for different balance-sheet items.**

*** Financial Accounting Standards Board**

FASB #8 (TEMPORAL METHOD)
VS.
FASB #52 (CURRENT RATE METHOD)

2. Under FASB #52 (Foreign Currency Translation, 1981):

- a. All gains and losses are treated as net worth.**
- b. All items are translated at current exchange rate except net worth.**

net worth = stockholders' equity

= common stock, paid-in-capital (capital surplus) and retained earnings

FASB #8 (TEMPORAL METHOD)
VS.
FASB #52 (CURRENT RATE METHOD)

3. In 1982, GM earned \$963 million and had a translation gain of \$348 million, while Ford lost \$658 million and had a translation loss of \$220 million. 1982 was the year that US companies were allowed to use either FASB #52 or #8.

- GM used FASB #8 to include a translation gain of \$348 million in its income statement, while Ford used FASB #52 to exclude a translation loss of \$220 million from its income statement.**

FASB #8 (TEMPORAL METHOD) VS. FASB #52 (CURRENT RATE METHOD)

Table 10.3 Translation of foreign-currency operations under FASBs 8 and 52

		FASB 8		FASB 52	
	Canadian dollars	Rates used	US dollars	Rates used	US dollars
Balance sheet					
Cash and receivables	100	.75	75	.75	75
Inventory	300	.81*	243	.75	225
Fixed assets, net	600	.85	510	.75	450
Total	1,000		828		750
Current liabilities	180	.75	135	.75	135
Long-term debt	700	.75	525	.75	525
Common stock	100	.85	85	.85	85
Retained earnings	20		83		16
Equity adjustments from translation	—				—11
Total	1,000		828		750
Income statement					
Revenue	130	.80	104	.80	104
Cost of goods sold	—60	.83*	—50	.80	—48
Depreciation	—20	.85*	—17	.80	—16
Other expenses	—10	.80	—8	.80	—8
Exchange gain (loss)	—		70		—
Income before tax	40		99		32
Income tax	—20	.80	—16	.80	—16
Net income	20		83		16
Ratios					
Net income to revenue	0.15		0.80		0.15
Gross profit margin	0.54		0.52		0.54
Long-term debt to equity	5.83		3.13		5.83

*Historical rates for inventory, cost of goods sold, and depreciation of fixed assets.

Single Translating Rate

Loss of \$11 will affect the ratios

Functional Currency: Foreign or local currency.

Parent Currency: Currency where the parent located.

HEDGING TRANSLATION EXPOSURE

1. Under the balance sheet hedge, a company maintains the same mount of exposed assets and liabilities in a particular currency.

2. Fund adjustment techniques which are used to reduce translation loss:

A)

a1) Increase hard-currency assets; for example, increase dollar-denominated receivables.

a2) Decrease hard-currency debts; for example, pay off dollar-denominated debts.

B)

b1) Decrease soft-currency assets; for example, reduce peso-denominated receivables.

b2) Increase soft-currency debts; for example, increase peso-denominated debts.

Notes:

a) Hard currencies are those currencies whose value is likely to appreciate, and

b) Soft currencies are those currencies whose value is likely to depreciate.

HEDGING TRANSLATION EXPOSURE

2. Indirect Fund Adjustment Methods

- a. Expose netting** allows a firm to net certain exposures from different operations so that it may hedge only its next exposure.
- b. Leading and lagging** allows a firm to pay or collect early (leading) and to pay or collect late (lagging).
- c. Transfer pricing** can be adjusted to avoid foreign currency exposure.

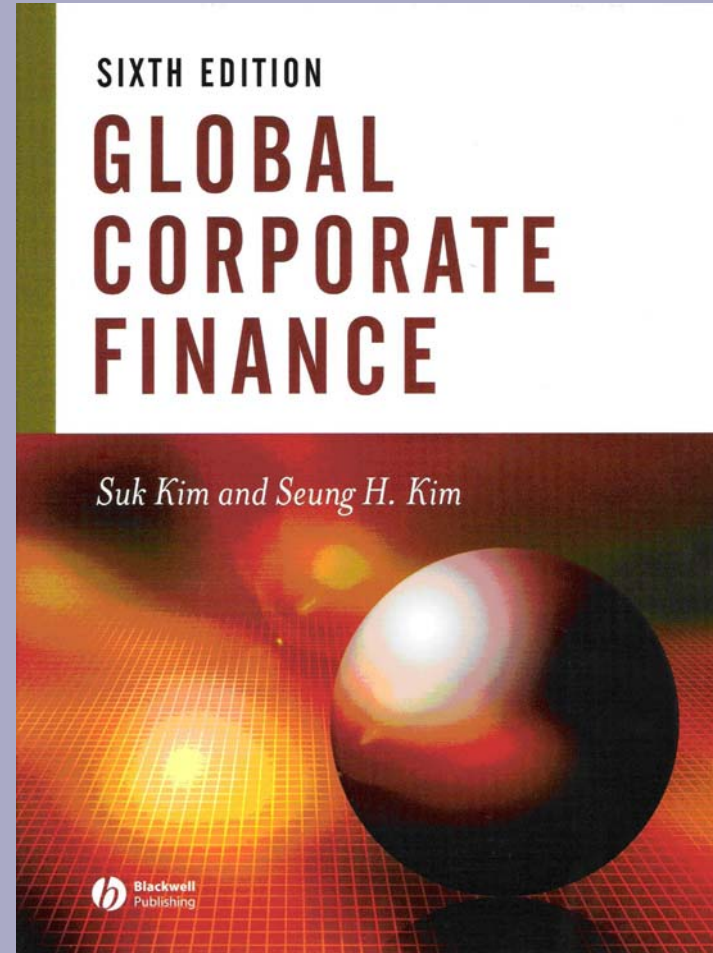
INTERNET EXERCISES



- Visit the Web Site <<http://www.nokia.com>> to find the latest annual report of Nokia. What is Nokia's accumulated translation adjustment? What functional currencies does Nokia use? What was Nokia's reported currency translation gain or loss during the year?
- Use the Web Site <<http://www.futuresmag.com>> to answer the following question. Based on the translation exposure of the MNC you assessed in the previous exercise, determine whether exchange rate movements of whatever currency (or currencies) it is exposed to moved in a favorable or unfavorable direction over the last few months?

CHAPTER 11

INTERNATIONAL FINANCIAL MARKETS



Chapter 11 Major Sections

Three International financial Markets

- **Section 1, EURO currency**
- **Section 2, International Bond**
- **Section 3, International Equity**

Opening Case 11

Foreign Investors Load Up with Asia's Share

Opening Case 11: Foreign Investors Load Up with Asia's Shares

Since May 21, 2003, US and other foreign investors have begun to pile funds back into Asia because they believe that the region will once again prove to be a leveraged bet on US growth (figure 11.1). That newfound taste for Asian shares, however, could sour as the same factors that make stocks in the region attractive leave them vulnerable should US recovery expectations prove premature.

Investors purchased Asia-focused funds as they switched out of fixed-income securities back into stocks, reasoning that shares in Asia will rise faster and further in front of a US recovery, as they have in the past. Another reason for a current Asian markets boom is the return of investor interest in so-called cyclical stocks, whose prices rise and fall with overall economic performance. In Asia, entire markets tend to be cyclical as they follow the ups and downs of the US economy.

The flipside of being a leveraged bet on US growth is Asia's predilection to fall harder when that growth slows. Asian leaders would prefer that the region lessen its reliance on the hot and cold flows of global trade and rely more on domestic consumption and trade within Asia for growth. That, they reason, would make growth more stable over the long term and make Asia less of a cyclical play for investors. However, Geoffrey Banker, chief Asian economist for HSBC Bank in Hong Kong, says those desires have yet to be translated into concrete changes in Asian economies. Most Asian countries have become more reliant on exports in the past few years, he said. And that leaves them more vulnerable to disappointment should a US recovery not materialize soon.

Source: P. Day, "Foreign Investors Load Up with Asia's Shares," *The Wall Street Journal*, July 17, 2003, p. C12.

The recent stock rally has been more significant for tech-heavy Asian stock market indexes and the NASDAQ than for the Dow Jones Industrial Average. At left, index performance since May 20; in US-dollar terms. At right, growth in total assets through new investment in Asian regional funds compared with growth in international fund assets in general* since May 21.

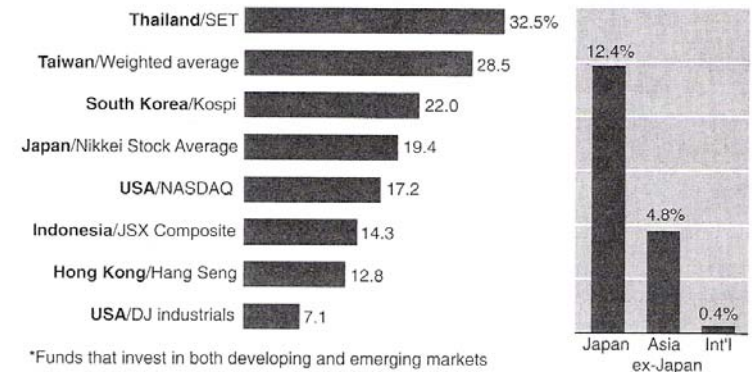


Figure 11.1 Asian markets boom as foreigners pile in

Source: P. Day, "Foreign Investors Load Up with Asia's Shares," *The Wall Street Journal*, July 17, 2003, p. C12.

EUROCURRENCY (EURODOLLAR) MARKETS

1. **Eurocurrency** (Eurodollar) market consists of banks that accept Eurodollar **deposits** and make Eurodollar **loans** in foreign countries outside the country of issue.
2. **Definitions of Eurodollars:**
 - a. **Narrow definition:** dollars banked in Europe.
 - b. **Broad definition:** dollars banked outside of the US.
 - c. **Eurocurrency** is any currency banked outside its country of origin.
 - d. The term "Eurodollar" frequently refers to the entire Eurocurrency market because dollars account for most of the Eurocurrency market.

EUROCURRENCY (EURODOLLAR) MARKETS

Why are deposit rates higher and lending rates lower in the Eurodollar market than in the US?

- a. Euro banks are free of reserve requirements.**
- b. Euro banks have very little regulatory expenses.**
- c. Eurodollar loans are made to well known borrowers in high volumes.**
- d. Eurodollar loans are made in tax haven countries.**
- e. Eurodollar loans are not made at concessionary rates, which is usually lower than prevailing market rate.**

Table 11.1

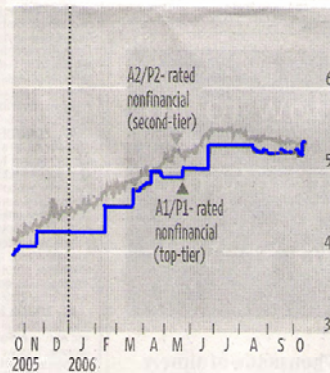
Money Rates

Monday, October 16, 2006

The key U. S. and foreign annual interest rates below are a guide to general levels but don't always represent actual transactions.

Commercial Paper

Yields paid by corporations for short-term financing, typically for daily operation



Source: Federal Reserve

Prime Rate: 8.25% (effective 06/29/06). The base rate on corporate loans posted by at least 75% of the nation's 30 largest banks.

Discount Rate (Primary): 6.25% (effective 06/29/06).

Federal Funds: 5.375% high, 5.000% low, 5.125% near closing bid, 5.188% offered. Effective rate: 5.27%. Source: Tullett Prebon Information, Ltd. Federal-funds target rate: 5.250% (effective 06/29/06).

Call Money: 7.00% (effective 06/29/06).

Commercial Paper: Placed directly by General Electric Capital Corp.: 5.23% 30 to 120 days; 5.22% 121 to 150 days; 5.20% 151 to 180 days; 5.18% 181 to 210 days; 5.16% 211 to 240 days; 5.14% 241 to 270 days.

Euro Commercial Paper: Placed directly by General Electric

Capital Corp.: 3.30% 30 days; 3.33% two months; 3.45% three months; 3.50% four months; 3.54% five months; 3.59% six months.

Dealer Commercial Paper: High-grade unsecured notes sold through dealers by major corporations: 5.26% 30 days; 5.28% 60 days; 5.30% 90 days.

Certificates of Deposit: 5.29% one month; 5.33% three months; 5.35% six months.

Bankers Acceptances: 5.28% 30 days; 5.30% 60 days; 5.32% 90 days; 5.33% 120 days; 5.34% 150 days; 5.34% 180 days. Source: Tullett Prebon Information, Ltd.

Eurodollars: 5.31% - 5.28% one month; 5.31% - 5.29% two months; 5.35% - 5.31% three months; 5.35% - 5.33% four months; 5.36% - 5.34% five months; 5.37% - 5.35% six months. Source: Tullett Prebon Information, Ltd.

London Interbank Offered Rates (Libor): 5.3200% one month; 5.37438% three months; 5.40688% six months; 5.40625% one year. Effective rate for contracts entered into two days from date appearing at top of this column. Euro Libor: 3.44975% one month; 3.50150% three months; 3.64413% six months; 3.80013% one year. Effective rate for contracts entered into two days from date appearing at top of this column.

Euro Interbank Offered Rates (Euribor): 3.348% one month; 3.502% three months; 3.643% six months; 3.801% one year. Source: Reuters.

Foreign Prime Rates: Canada 6.00%; European Central Bank 3.25%; Japan 1.625%; Switzerland 3.50%; Britain 4.75%.

Treasury Bills: Results of the Monday, October 16, 2006, auction of short-term U.S. government bills, sold at a discount from face value in units of \$1,000 to \$1 million: 4.940% 13 weeks; 4.935% 26 weeks. Wednesday, October 11, 2006 auction: 4.785% 4 weeks.

Overnight Repurchase Rate: 5.27%. Source: Garban Inter-capital.

Freddie Mac: Posted yields on 30-year mortgage commitments. Delivery within 30 days 6.20%; 60 days 6.22%; standard conventional fixed-rate mortgages: 3.375%, 2% rate capped one-year adjustable rate mortgages.

Fannie Mae: Posted yields on 30 year mortgage commitments (priced at par) for delivery within 30 days 6.326%, 60 days 6.348%, standard conventional fixed-rate mortgages. Constant Maturity Debt Index: 5.231% three months; 5.291% six months; 5.258% one year.

Merrill Lynch Ready Assets Trust: 4.67%.

Consumer Price Index: August, 2003, up 3.8% from a year ago. Bureau of Labor Statistics.

Based on
16 major
Banks

57 Eurozone
Banks

Euro-Banks usually establish their lending rate at some fixed % above the 6 month (LIBOR).

EURONOTE ISSUE FACILITIES (EIFs)

- **EIFS** are notes (a recent innovation in non-bank short-term credits) issued outside the country in whose (their) currency they are denominated.
- **EIFs** consists of; Euro notes, Euro commercial papers, and Euro-medium-term notes (EMTNs).
 - **Euro notes** are short-term debt instruments underwritten by a group of international banks.
 - **Euro commercial papers** are unsecured short-term promissory notes sold by companies.
 - **Euro-medium-term notes** are medium-term funds guaranteed by financial institutions with the short-term commitment by investors.

EUROCURRENCY INTERBANK MARKET

1. The **Interbank market** consists of deposits and loans among banks and accounts for most of the entire Eurocurrency market.
2. Risks of participating Eurocurrency banks include:
 - a. Credit or default risk
 - b. Liquidity risk
 - c. Sovereign risk
 - d. Foreign exchange rate risk
 - e. Settlement risk.

EUROCURRENCY INTERBANK MARKET

- 3. Major concerns of the interbank market by regulators and analysts:**
 - a. Two major concerns are**
 - (1) no collateral, and**
 - (2) inadequate central bank regulations.**
 - b. Above two major factors may create a "contagion effect." Problems at one bank may affect other banks in the market. Ultimately threatens the market's stability and its function.**

EUROCURRENCY INTERBANK MARKET

4. Minimum standards of international banks

- a. **Central bank governors of G-10 countries and the Bank for International Settlements** (is a bank in Switzerland, that facilitates transactions among central banks) established a minimum standard in 1988.
- b. **Globally active banks maintain capital equal to at least 8 % of their assets.**

5. The recent movement toward a highly integrated global financial system has caused banker to develop “Three Cs”.

“Three Cs” of central banking are:

- **Consultation,**
- **Cooperation, and**
- **Coordination**

EUROCURRENCY INTERBANK MARKET

6. The role of banks in corporate governance

- a. Traditionally, the corporate governance of the US used to be a market-based system; the corporate governance of Japan used to be a bank-based system.**
- b. In recent years, however, the role of banks in the US corporate governance became stronger, while the role of banks in Japan's corporate governance became weaker.**

Global Finance in Action 11.1

Global Finance in Action 11.1

International Interest Rate Linkages

A change in the federal fund rate target often prompts observers to comment that other central banks are likely to follow suit by changing their own targeted interest rates. **Federal funds** are reserves traded among US commercial banks for overnight use. Figure 11.2 shows that central banks of different countries often change inter-

est rates in the same direction, at about the same time. This is especially true for central banks of countries with close economic ties.

There are at least three reasons why central banks might tend to change their interest rate targets in a similar fashion.

- 1 Countries react similarly to "common shocks." In making monetary policy, central banks consider the state of the economy, including international prices of oil and other key commodities. Changes in such prices tend to affect countries in the same way, leading to similar changes in monetary policy.
- 2 Countries may desire to maintain stable exchange rates. By raising and lowering interest rates in tandem, central banks might minimize swings in the external value of their currencies.
- 3 Economic conditions in one country affect those in other countries through trade and capital flows. A US recession that leads to lower US interest rates might also slow its trading partners' growth, prompting their central banks to lower rates as well.

The latter two reasons might explain why the interest rate changes of larger countries generally precede those of their smaller trading partners. Conditions in larger countries, such as the USA, affect conditions in smaller trading partners. Thus, smaller countries are more likely to consider external factors when making monetary policy.

Because the Federal Reserve has conducted monetary policy for the largest economy in the world, it has been less concerned with external factors than most central banks. As a result, it has frequently been a "leader" in international rate movements. For example, figure 11.2 shows that the Federal Reserve led the way for other central banks by starting a series of interest rate reductions in January 2001.

Source: C. J. Neely, "International Interest Rate Linkages," *International Economic Trends*, The Federal Reserve Bank of St. Louis, Aug. 2001, p. 1.

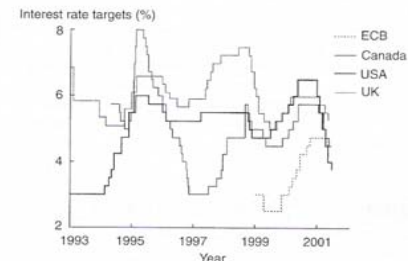


Figure 11.2 International interest rate linkages

Source: Interest rate target data were obtained from the respective central banks.

ASIAN CURRENCY MARKET

- 1. In 1968, an Asian version of the Eurodollar came into existence with the acceptance of dollar-denominated deposits by banks in Singapore.**
- 2. 150 banks have licenses from the government of Singapore to operate Asian Currency Units (ACUs).**

ASIAN CURRENCY MARKET

- 3. An ACU is a section within a bank with authority and separate accountability for Asian currency market operations.**
- 4. This Asian currency market rivals the International Banking Facilities of the US and the Japan Offshore Market.**

INTERNATIONAL BOND MARKET

1. Definition of **international bonds**: bonds, which are initially sold outside the country of the borrower.
2. **Foreign bonds** are bonds sold in a particular country by a foreign borrower.
3. **Eurobonds** are bonds sold simultaneously in many countries outside the country of the borrower.
4. **Global bonds** are bonds sold inside as well as outside the country of the borrower.


INTERNATIONAL BOND MARKET

5. **Currency denominations in international bonds include currencies of most industrial countries.**

Multiple currency bonds are:

- (1) currency option bonds** that allow investors to choose one among several predetermined currencies and
- (2) currency cocktail bonds** that are denominated in a standard currency basket of several currencies such as SDRs.

SDR a reserve asset created in 1967 by the IMF (international monetary organization created at Bretton Woods conference in 1947), to make the new monetary system feasible and workable.



INTERNATIONAL BOND MARKET

6. Other types of international bonds include:

a. Straight bonds

b. Floating-rate bonds

c. Convertible bonds

d. Bonds with warrants

e. Zero-coupon bonds.

INTERNATIONAL EQUITY MARKET

New trends in stock markets:

- a. Stock market alliances:** some 150 stock exchanges in the world scramble to align with each other.
- b. Cross listing:** a recent increase in cross border mergers compel firms to cross list their stocks on different exchanges around the world.
- c. Stock market concentration:** Stock markets have become more integrated in recent years mainly due to the European Union, market alliances, cross-listing, and other reasons.

INTERNATIONAL EQUITY MARKET

Privatization

- a. Privatization is a situation in which government-owned assets are sold to private individuals or groups.**
- b. Why privatize? To develop capital markets, widen share ownership, raise money, and change corporate governance.**

INTERNATIONAL EQUITY MARKET

Long-term capital flows to developing countries

- a. Long term capital flows to developing countries have declined since 1998 mainly due to the Asian financial crisis of 1997 and the recent slowdown of the global economy.**
- b. Long term capital flows shifted from debt to equity in recent years (Government → Private), because:**
 - **Investor preferences**
 - **Preferences of developing country policy makers**
 - **It is a positive development; it puts development finance on stable footing**

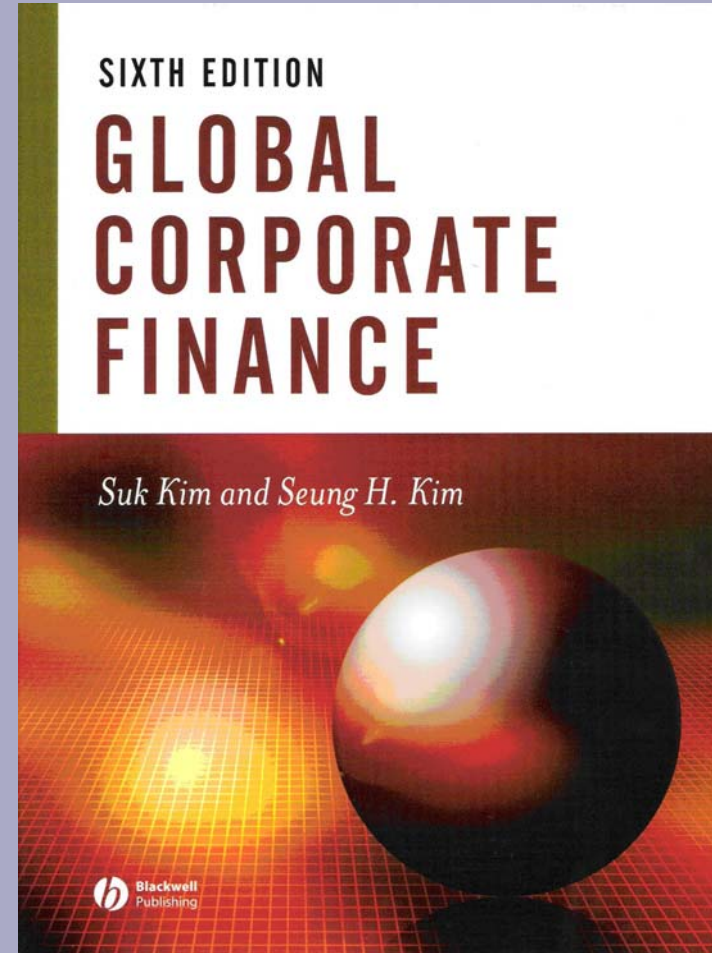
INTERNET EXERCISES



- Plot the dollar value of the euro since its inception in January 1, 2002. How has the euro fared in the past year? You may use the website of the European Central Bank at <<http://www.ecb.int>>.
- What explanations have been given for the decline of the euro in the first two years of existence? Search the Wall Street Journal <<http://www.wsj.com>> and the Economist <<http://www.economist.com>> to formulate your answer.

CHAPTER 12

INTERNATIONAL BANKING ISSUES AND COUNTRY RISK ANALYSIS



Chapter 12 Major Sections

- **Section 1, International Banking Operation**
 - **Section 2, International Loan**
 - **Section 3, Country Risk Analysis**
- 

Opening Case 12: Argentina's Currency Crisis

Opening Case 12: Argentina's Currency Crisis

From December 2001 to January 2002, Argentina experienced tumultuous currency devaluation, sovereign debt default, and a freeze on bank accounts that followed a 10-year period during which the country pegged its peso one-to-one with the US dollar. During this period, Argentina took steps to privatize state-owned enterprises and open itself to international trade – especially with Brazil, which became Argentina's largest trading partner through the Mercosur customs union. In the 1990s, foreign companies purchased numerous privatized enterprises and foreign investors acquired large holdings of private and sovereign debt from Argentina. For these foreign owners to repatriate interest and profits, Argentina would have to generate substantial export earnings.

However, one big obstacle to Argentine exports was the appreciation of the dollar, which caused the peso to appreciate against other major currencies since 1995. That is, prices in Argentina, combined with the one-to-one exchange rate with the dollar, made Argentine goods relatively expensive to the rest of the world. Argentina and Brazil were at least in the same boat during the mid-1990s, when Brazil also pegged its real to the US dollar. In contrast to the European Union, however, the Mercosur customs union did not impose exchange rate commitments between the member countries, and Brazil unilaterally devalued the real in January 1999. Depreciation of the nominal exchange rate would have been the most direct way for Argentina also to reduce the high real exchange value of the peso. With the exchange rate straitjacket in place, however, the only way market forces could reduce the real exchange value of the peso was for prices in Argentina to fall relative to prices in the USA. However, it was not easy for prices in Argentina to fall below those in the USA, given the US productivity boom, which held down US inflation and elevated real rates of return.

With the fixed exchange rate, nominal interest rates in Argentina could not fall below those in the USA, although they could be higher due to default risk. This interest rate floor meant that any fall in prices relative to the USA implied correspondingly higher real borrowing costs in Argentina's domestic credit markets. Between November 1994 and September 2001, for example, the price level in Argentina fell 16.2 percent relative to the price level in the USA. The resulting real borrowing costs hindered any economic recovery that would have reduced Argentina's unemployment rate from double-digit levels. Nevertheless, figure 12.1 shows that not even this painful decrease in relative prices between Argentina and the USA was sufficient to prevent substantial appreciation of the real exchange value of the peso relative to the Brazilian real following Brazil's devaluation in January 1999. This evolution of the Argentine economy – one step forward and two steps backward – satisfied no constituency: neither domestic borrowers, labor unions, and exporters, nor foreign creditors. In such circumstances, domestic politics generally holds the trump card, whereupon default and devaluation became the inevitable outcome.

Source: M. J. Dueker, "Argentina Agonists," *International Economic Trends*, Feb. 2002, p. 1.

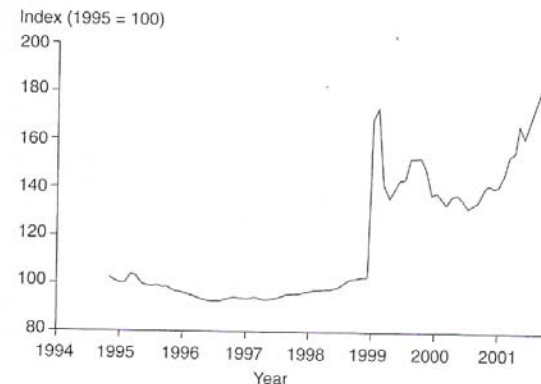


Figure 12.1 The real exchange rate between Argentina and Brazil: higher values indicate that Argentine exports are more expensive

Argentina, 1999:

- Experienced tumultuous (chaotic) currency devaluation
- Sovereign debt default
- A freeze on bank account

INTERNATIONAL BANKING OPERATIONS

International banks perform many vital task to help international transactions of MNC.

Type of foreign banking offices:

- 1. Representative offices**
- 2. Correspondent banks**
- 3. Brach banks**
- 4. Foreign Subsidiaries banks**
- 5. Agencies, and**
- 6. Banking consortia**

INTERNATIONAL LOANS

Differences between domestic and foreign loans:

- 1. Foreign loans** are subject to foreign exchange fluctuations and controls. **Possible solutions** include forward and futures contracts, swaps, and back-to-back loans.
- 2. There are no legal systems and no ultimate arbitrators (authorities)** for possible disputes between borrowers and lenders. **Possible solutions** include prior agreements and insurance purchases.

INTERNATIONAL LOANS

International debt crisis of the 1980s:

1. The first major blow to the international banking system:

- a. Mexico defaulted in August 1982.**
- b. Brazil and Argentina followed.**
- c. 25 countries faced similar problems by 1983.**
- d. \$68 billion swing by OPEC* between 1980 and 1982.**

In 1980, OPEC contributed \$42 billion to loanable funds, but in 1982 withdrew \$26 billion from loanable funds.

*** Organization of Petroleum Exporting Countries**

INTERNATIONAL LOANS

International debt crisis of the 1980s:

2. Causes of the crisis include:

- a. **Global economic dislocations and mismanagement by the debtor countries.**
- b. **Growth opportunities in these countries, which motivated them to borrow too much too fast.**
- c. **The 1973-74 oil shock that increased oil prices by four times.**
- d. **Large balance of payments deficits by debtor countries.**
- e. **Large capital flights, which are defined as the transfer of capital abroad in response to fears of political risk.**

INTERNATIONAL LOANS

International debt crisis of the 1980s:

3. Solutions:

- a. **Lenders, borrowers, and international organizations** worked together; they used rescheduling, refinancing, additional loans, forgiveness, and restrictive economic policies.
- b. **Lenders** increased equity-capital base, increased loan-loss reserves, reduced new loans, and sold exposed assets.
- c. **Borrowers** depended on increased exports, reduced imports, more foreign investment, restrictive economic policies, and **debt-equity swaps**.
- d. **Partial debt relief** was provided by creditors and **world financial institutions**.

INTERNATIONAL LOANS

International debt crisis of the 1980s:

4. Brady Bonds (US Treasury Secretary Nicholas Brady)

- a. The above four measures were not sufficient to solve the debt crisis completely.
- b. In 1989, US Treasury Secretary Brady offered to convert the creditors' loans into new guaranteed loans with a reduced interest rate of 6.5 percent. This plan has come to be called "Brady bonds."
- c. In 1992, 20 debtor countries had converted \$100 billion in bank debt into Brady bonds.
- d. These Brady bonds are largely credited with solving the debt crisis of the 1980s

INTERNATIONAL LOANS

The Asian financial crisis of 1997:

- 1. Thailand faced a currency crisis in July 1997 due to a huge foreign debt, trade deficits, and a banking system weakened by the heavy burden of unpaid loans.**
- 2. A Thai crisis spread to Philippines, Malaysia, Indonesia, and Korea because investors and companies in these countries shared all of Thailand's problems.**

INTERNATIONAL LOANS

The Asian financial crisis of 1997:

3. In the 4th quarter of 1997, the IMF arranged rescue packages of \$18 billion for Thailand, \$43 billion for Indonesia, and \$58 billion for Korea (**total of \$119 billion**).
4. By the end of **1998**, the **Asian crisis spread** to Russia, Brazil, and many other countries. Again, the IMF arranged bailout packages of \$23 billion for Russia and \$42 billion for Brazil.
5. The Asian crisis had pushed **one-third of the globe into recession during 1998**.

Global Finance in Action 12.1

IMF lent a total of \$119 billion to Indonesia, Korea, and Thailand.
Allen Metzger believes that this policy is the fourth mistake, because it may invite a larger financial crisis in the future.

Global Finance in Action 12.1

The Asian Financial Crisis and the International Monetary Fund (IMF)

Between 1990 and 1996, capital inflows to emerging market countries rose from \$60 billion to \$194 billion. No one carefully monitored these capital flows. When problems developed in Asia in 1997, neither the IMF nor the private lenders knew the true magnitude of the debts of some of these countries. Firms borrowed directly and through their subsidiaries. Often, the total was not shown on any balance sheet. The provision of the IMF Articles of Agreement requiring surveillance and the decision to strengthen surveillance following the 1995 Mexican crisis proved to be of little use. Though important, the IMF's failure to monitor seems small beside the elementary mistakes of private lenders. The lenders ignored three principles of prudent behavior that history has shown repeatedly to be a major reason for financial failure.

First, Asian banks and other Asian borrowers used short-term renewable credits from foreign banks to finance long-term loans (maturity mismatch). All banks do this to some extent, but the extent matters a great deal. When foreign loans were not renewed, the Asian banks and corporations faced large defaults. Second, Asian banks and corporations borrowed in foreign currencies and loaned in local currency (currency mismatch). They accepted the exchange risk without hedging. They failed to realize that the difference in interest rates included the risk of currency depreciation. Third, many international bankers did not ask to see consolidated balance sheets. They did not monitor the total assets and liabilities of the borrowers.

The IMF and the principal governments lent a total of \$119 billion to Indonesia, Korea, and Thailand so that they could pay the interest on the existing bank loans or repay the principal. Extending new credit helped the Asian banks to avoid default, but money went to the foreign banks. International bank loans were in dollars, yen, and other hard currencies. Instead of taking large losses like the holders of currency, stocks, and bonds, the international banks collected their loans with relatively small losses. And in exchange for extending repayment, the banks collected fees for renegotiating the loans. They demanded government guarantees of the loans they made to banks, financial institutions, and private companies. Allen Metzger believes that this policy is the fourth mistake, because it may invite a larger financial crisis in the future.

Source: Allen H. Metzger, "Asian Problems and the IMF," *The Cato Journal*, Winter 1998, pp. 267–8.

INTERNATIONAL LOANS

The Asian financial crisis of 1997:

Causes of the Asian Crisis:

fundamental view vs. panic view

- a. The **fundamental view** holds that the Asian crisis was caused by the **maturity mismatch** and the **currency mismatch** - the use of **short-term debt** for **fixed assets** by **crisis countries** and their **unhedged external debt**.
- b. The **panic view** states that problems in Thailand were turned into an Asian crisis because of **international investors'** **irrational behavior**.

INTERNATIONAL LOANS

The Asian financial crisis of 1997:

Several factors support the panic view:

- (1) no warning signs were visible (such as increase in i , debt degrading, etc.)**
- (2) international banks made substantial loans to private firms prior to the crisis**
- (3) even viable exporters with confirmed sales could not get credit (irrationality on the part of lenders)**
- (4) the sudden withdrawal of funds from the region triggered the crisis**

INTERNATIONAL LOANS

The Asian financial crisis of 1997:


Policy Responses:

- a. **External payments were stabilized by IMF - led rescue packages, the rescheduling of short-term loans, and reductions in foreign borrowings through increased exports and reduced imports.**
- b. **Crisis countries closed many ailing banks, cleaned up non-performing loans, and compelled banks to meet the capital adequacy ratio set by the BIS (Bank for International Settlements).**
- c. **Corporate sector reforms included debt reduction, removal of excess capacity, reorientation of conglomerates on core businesses, and enhanced corporate governance.**

INTERNATIONAL LOANS

Syndicated (Group) loans:

A syndicated loan is a credit in which a group of banks makes funds available on common terms and conditions to a particular borrower.



INTERNATIONAL LOANS

Syndicated loans:

2. This type of loan is popular because of:

- a. The increasing size of individual loans**
- b. The need to spread risks in large loans**
- c. The attractiveness of management fees**
- d. The publicity for participating banks**
- e. The need to form profitable working relationships with other banks.**

Global Finance in Action 12.2

Global Finance in Action 12.2

Asian Companies Turn to Capital Markets for Funds

Traditionally, capital markets have been the main source of funds for US and British companies, while banks have been the main source of funds for Asian companies. However, Asia appears to be growing less dependent on bank loans for funding as companies have increasingly turned to the stock and bond markets to raise money. Primary figures for 1999, for example, suggest a decided shift in the way Asian companies and governments obtain financing in the wake of the Asian financial crisis.

As of December 16, 1999, Asia-Pacific companies had raised more than \$102.5 billion in share offerings in 1999, compared with a meager \$68.6 billion in 1998, \$94.5 billion in 1997 – the year the crisis broke out in Asia – and \$67.8 billion in 1996. The bumper crop for 1999 included a \$15 billion placing of shares in Japan's Nippon Telegraph & Telephone, a \$10.3 billion placement by Australian phone company Telstra, and a \$4.3 billion share offering by a fund run by the Hong Kong government.

The volume of new bonds for Asia-Pacific issuers rose to \$98.1 billion in 1999 as of December 16, 1999, from \$70.9 billion in 1998. The 1999 total is much less than 1997's \$111.5 billion, but surpassed for a second straight year the amount that Asian companies raised through syndicated bank loans. The big bond issues in 1999 from outside Japan included a \$1 billion deal for Korea Development Bank, a \$1 billion deal for Malaysia, and a \$1.6 billion deal for Thailand's Ministry of Finance.

Syndicated loans totaled \$88 billion in 1999, well below the 1997 peak. Syndicated lending in the region for 1999 was about the same level as the previous year, but about half of 1997's level.

Of course, this shift away from bank lending has been born partly of necessity. For years, companies in Asia borrowed heavily from local and international banks. But a wave of Asian currency depreciations in 1997 and 1998 left many companies in the region unable to service their debts. Banks in the region were saddled with a mountain of nonperforming loans. Foreign lenders have been reluctant to lend money to Asian companies since the Asian financial crisis of 1997–8. With bankers still working out how to restructure or recoup these loans, plenty of banks are cautious about making new commitments.

Source: "More Asian Companies Turn to Markets for Funds and Away from Bank Loans," *The Wall Street Journal*, Dec. 30, 1998, p. C14.

In 1999:

1. Rising more than \$102.5 billion in share offering
2. Volume of bonds for Asia-Pacific rose to \$98.1 billion
3. Syndicated loan totaled \$88 billion

COUNTRY RISK ANALYSIS

Country risk: is the possibility of default on foreign loans.

How to assess country risk:

a. Debt ratios by the **World Bank** in 2003:

	1. Severely Indebted Countries	2. Moderately Indebted Countries	3. Less Indebted Countries
Debt Ratio *	Critical Value	Critical Value	Critical Value
Debt Service to GNP	> 80%	> 48%	neither
Debt Service to Export	> 220%	> 132%	1 nor 2
	50 countries	41 countries	47 countries

*

Ratio of PV of total Debt Services in 01 to Av. GNP in 99, 00, 01

Ratio of PV of total Debt Services in 01 to Av. Export in 99, 00, 01

COUNTRY RISK ANALYSIS

- b. Some publications, such as *Euromoney*, determine overall creditworthiness of most countries around the world.**

Overall creditworthiness depends on economic factors, political factors, and foreign relations (table 12.6).

- c. Moody's Investor Service and Standard & Poor's assign letter ratings to indicate the quality of bonds issued by most sovereign governments (table 12.7).**

INTERNET EXERCISES



- Using Moody's investor services <<http://www.moodys.com>> and Standard and Poor's ratings <<http://www.standardandpoors.com>>, obtain the sovereign debt ratings for two countries of your choice.
- To answer the following questions, visit <<http://www.mich.com/~kimsuk>> click IB Websites, and then go down to the International Information:
 - Use the link to the Heritage Foundation to name the five most economically free countries and the five least economically free countries.
 - Use the Internet Research for Corruption Index to name the five most corrupt countries and the five least corrupt countries.
- International Capital Flows: Public and Private major multinational organizations (some of which are listed below) attempt to track the relative movements and magnitudes of global capital investment. Using these 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 countries"?

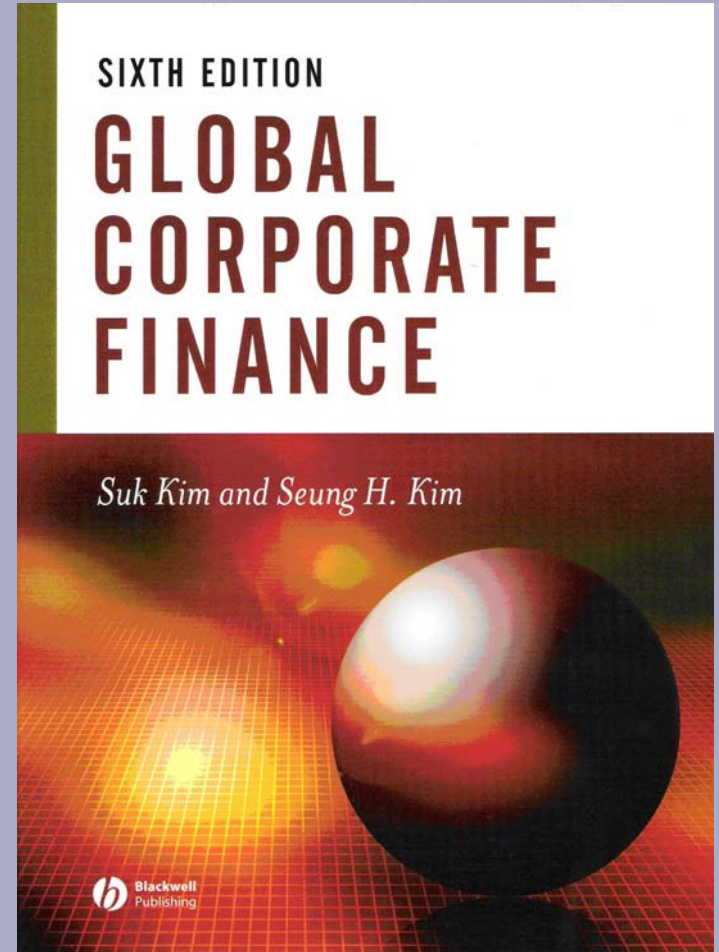
The World Bank <http://www.worldbank.org/>

OECD <http://www.oecd.org/>

European Bank for Reconstruction & Development <<http://www.ebrd.org/>>

CHAPTER 13

FINANCING FOREIGN TRADE



Chapter 13 Major Sections

- **Section 1, Basic Documents in Foreign Trade**
 - **Section 2, The Payment Terms of Export Transactions**
 - **Section 3, Sources of Financing Foreign Trade**
- 

Opening Case 13:

US Export-Import Bank Seeks Private Investors

**Ex-Im Bank look for
Private Investors
For \$ billion for
American Exports**

Opening Case 13: US Export-Import Bank Seeks Private Investors

The official US export finance agency is seeking private investors to help it provide billions of dollars in loan guarantees and risk insurance for American exporters. On February 16, 2000, the Export-Import Bank (Ex-Im Bank) asked investment banks, commercial banks, insurance companies, and other financial institutions for proposals on how they might share the risks and rewards from future Ex-Im Bank financial deals. The Ex-Im Bank, which supported almost \$17 billion in US sales overseas in 1999, hopes to raise \$1 billion or more through this new proposal.

In essence, the Ex-Im Bank wants to sell, to one or more partners, stakes in future export-financing deals, in the hopes of making its own resources go further at a time when the US trade deficit is piling on the records. The agency is leaving it up to the private financial institutions – American or foreign – to come up with a creative way to structure the deal. The idea is for a private partner to put a certain amount of money or credit at Ex-Im Bank's disposal, and then share in Ex-Im Bank's fees. The financial institution might limit how that investment can be used – perhaps setting a dollar limit for a particular country – but not approve or reject individual Ex-Im Bank decisions.

In an unusual move, the agency put 1,500 pages of its own financial and institutional information on a website to make it easier for potential investors to perform due-diligence research. Hoping for quick action, the Ex-Im Bank held a pre-proposal conference on March 7, 2000. Ex-Im Bank officials first conceived of the idea in 1997. Private institutions showed interest, but pulled back soon after the Asian financial crisis sent US banks and investors fleeing the developing markets. Ex-Im Bank revived the concept after the crisis subsided.

Source: M. M. Philips, "Ex-Im Bank Seeks Investors for Guarantees," *The Wall Street Journal*, Feb. 16, 2000, p. B10.

BASIC DOCUMENTS IN FOREIGN TRADE

1. A draft

2. A bill of lading

3. A letter of credit



OBJECTIVES OF DOCUMENTATION

- 1. Remove non-completion risk such as no or delayed delivery and no or delayed payments.**
- 2. Eliminate exchange rate risk through forward contracts and others.**
- 3. Documents enable banks to finance foreign trade**

TYPES OF DOCUMENTS

1. Draft is an order to pay.

a. Trade acceptance is a draft accepted by a company and it is non-negotiable.

b. Bankers' acceptance is a draft accepted by a bank and it is negotiable.

TYPES OF DOCUMENTS

2. A bill of lading is a shipping document and is simultaneously a:

a. Receipt

b. Contract

c. Document of title.

TYPES OF DOCUMENTS

3. Letters of credit are the bank's guarantee of payment.

4. Three additional documents include:

- **commercial invoice** (description of the merchandise),
- **insurance documents**, and
- **consular invoices** (documents issued by the consulate of the importing country).

The Process of a Typical Trade Transaction

14 Steps Process

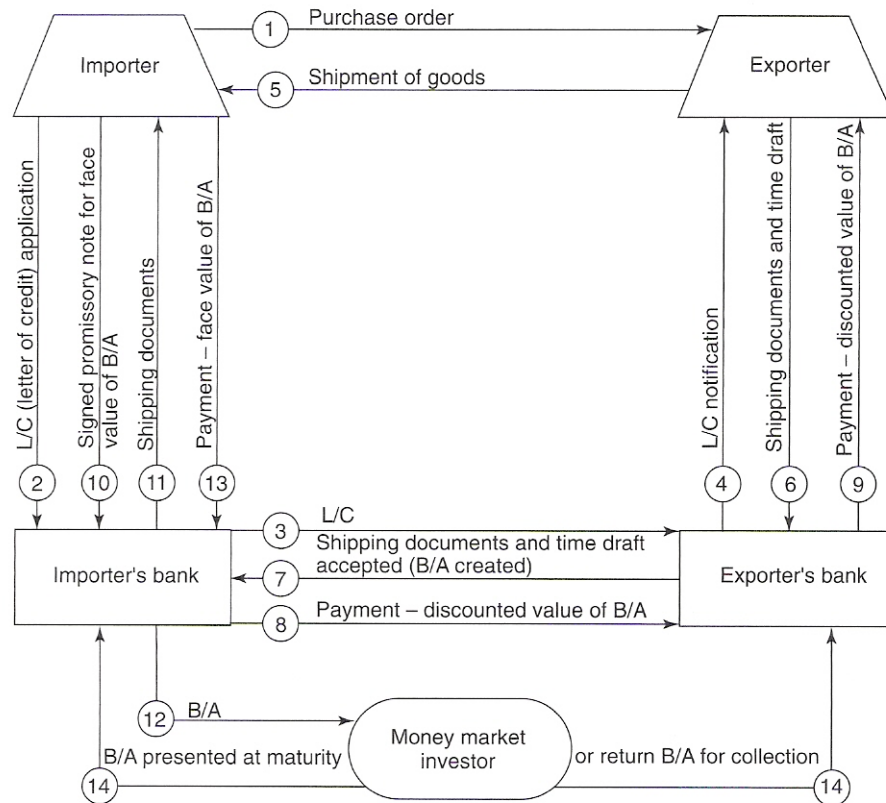


Figure 13.1 The process of a typical trade transaction

COUNTERTRADE

1. **Counter trade** refers to world trade arrangements that are variations on the idea of a barter.
2. **Simple barter (trade)** is the exchange of goods and services without money.
3. Under a **clearing arrangement**, any account imbalances at the end of an agreed-upon period of time are cleared by a **hard currency payment** or by the **transfer of additional goods**.

COUNTERTRADE

4. Under **switch trading**, a third party, called "switch trader," purchases any account imbalances between the two countries at the end of an agreed upon period of time.
5. Under **counter purchase**, the exporter agrees to a return purchase, **but with higher price**.

COUNTERTRADE

6. Under **compensation**, payment is made by products arising out of the original sale.
7. **Offset agreement** holds that the seller is required to use goods and services from the buyer country in the final product.

Global Finance in Action 13.1

Global Finance in Action 13.1

Pitfalls for Small Exporters

Rotary Corporation is a medium-sized US company that supplies aftermarket outdoor power equipment parts and accessories. The company now delivers parts to customers in more than 48 foreign countries, as it explores avenues to maintain a worldwide presence in the outdoor power equipment industry. There are lessons from Rotary's success that may help other small and medium-sized companies develop international sales. Rotary avoided nine common pitfalls to global expansion by stressing the "three Cs" of international commerce: commitment, customers, and cultural sensitivity.

Four pitfalls in the area of commitment are: (1) insufficient commitment by top management to overcome the initial difficulties and financial requirements of exporting; (2) failure to obtain qualified export counseling and obtain a master international marketing plan before starting an export business; (3) failure to use an export management company; and (4) failure to consider licensing or joint venture agreements.

Two pitfalls in the area of customer relations include: (5) insufficient care in selecting overseas distributors; and (6) chasing orders around the world, instead of establishing a basis for profitable operations and orderly growth. Three pitfalls in the area of cultural sensitivity are: (7) failure to assist vendors in complying with the North American Free Trade Agreement; (8) failure to treat international distributors on an equal basis with domestic counterparts; and (9) failure to print service, sales, and warranty messages in local languages, or to modify products to meet cultural preferences in other countries.

Source: L. B. Fletcher, L. S. Hamilton, and L. T. Denton, "Exporting the Right Way," *Strategic Finance*, July 1999, pp. 26–30.

**Exporting the Right Way:
9 Pitfalls for Small Exporter**

PRIVATE SOURCES OF EXPORT FINANCING

1. Accounts receivable financing

- a. Open account, accounts payable, is based on pre-established accounts.**
- b. Promissory notes, notes payable, are notes that officially evidence the debt.**
- c. Trade acceptances are drafts accepted by a company.**

PRIVATE SOURCES OF EXPORT FINANCING

d. In receivable financing, pledging uses receivables as collateral and factoring means outright sales of receivables.

Major differences between the two are:

Pledging

Ownership does not change

Lender has recourse

No notification to borrower's customers

Factoring

Ownership from borrower to lender

Lender has no recourse

Notification to borrower's customers

PRIVATE SOURCES OF EXPORT FINANCING

2. Letters of credit (trust receipt).

3. Bankers' acceptances.

4. Short-term bank loans.



Bank Financing

Example 13.2

An exporter has a \$10,000 bankers' acceptance for 6 months, the acceptance fee is 1 percent per year, and the discount rate on this bankers' acceptance is 12 percent per year. If the exporter chooses to hold the bankers' acceptance until maturity and then collect, it will receive the face amount less the acceptance fee:

Face amount of the bankers' acceptance	\$10,000
Less: 0.5% acceptance fee for 6 months	<u>50</u>
Amount received by exporter in 6 months	\$9,950

Alternatively, the exporter can sell the bankers' acceptance at a 6 percent discount rate ($12 \text{ percent} \div 2$) and receive \$9,350 immediately:

Face amount of the bankers' acceptance	\$10,000
Less: 0.5% acceptance fee for 6 months	50
6% discount rate for 6 months	<u>600</u>
Amount received by exporter immediately	\$9,350

PRIVATE SOURCES OF EXPORT FINANCING

5. Export trading companies of the US:

- a. The Export Trading Company Act of 1982 relaxed the banking holding company act and anti-trust laws for export trading companies.**
- b. The Act enabled export-trading companies to provide one-stop comprehensive services for exporters and buy/sell on their own accounts for exports.**

PRIVATE SOURCES OF EXPORT FINANCING

- 6. Factoring: factors, such as financial institutions, buy accounts receivable on a non-recourse basis.**

- 7. Forfaiting** (transaction involves an importer that issues a promising notes to pay for the imported goods over a period of 3 to 5 years)*:
 - a. similar to factoring.**
 - b. used to finance sales of big-ticket items.**
 - c. lender has no recourse.**
 - d. involve three to five years.**

* Importer will make semi-annual payments during the period to the forfaiting bank.

FACTORING

Example 13.3

An exporter has recently sold its accounts receivable of \$10,000 to a factor. The factor advances 80 percent of the receivables, charges 1 percent interest per month, and charges a 2 percent factoring commission (a one-time charge). Both the interest and the commission are paid on a discount basis.

The exporter's net proceeds are computed as follows:


Face value	\$10,000	
Less: 20% reserve due from factor	2,000	= $(100 - 80) \% \times \$10,000$
2% factoring fee	<u>200</u>	= $2\% \times \$10,000$
Funds available for advance	\$7,800	
Less: 1% interest on advance	<u>78</u>	per month
Net proceeds from advance	\$7,722	

Hence, the exporter receives a cash advance of \$7,722 now and expects to recover the \$2,000 reserve later. The annualized cost of factoring the accounts receivable is 14.71 percent $[(\$200 + \$78 \times 12)/(\$7,722)]$.

THE US GOVERNMENT SOURCES OF EXPORT FINANCING

- 1. Export-Import (Ex-Im) Bank:** triad demanded by exporters are:
 - a. Official loans**
 - b. Loan guarantees**
 - c. Insurance.**
- 2. Private Export Funding Corporation** is supported by the US Treasury Department and the Ex-Im Bank; its membership includes 54 banks, 7 manufacturers, and one investment banker.

THE US GOVERNMENT SOURCES OF EXPORT FINANCING

- 3. Foreign Credit Insurance Association**
insured all risks in exports, but went out
of business in 1983; the Ex-Im Bank took
over its functions.
- 

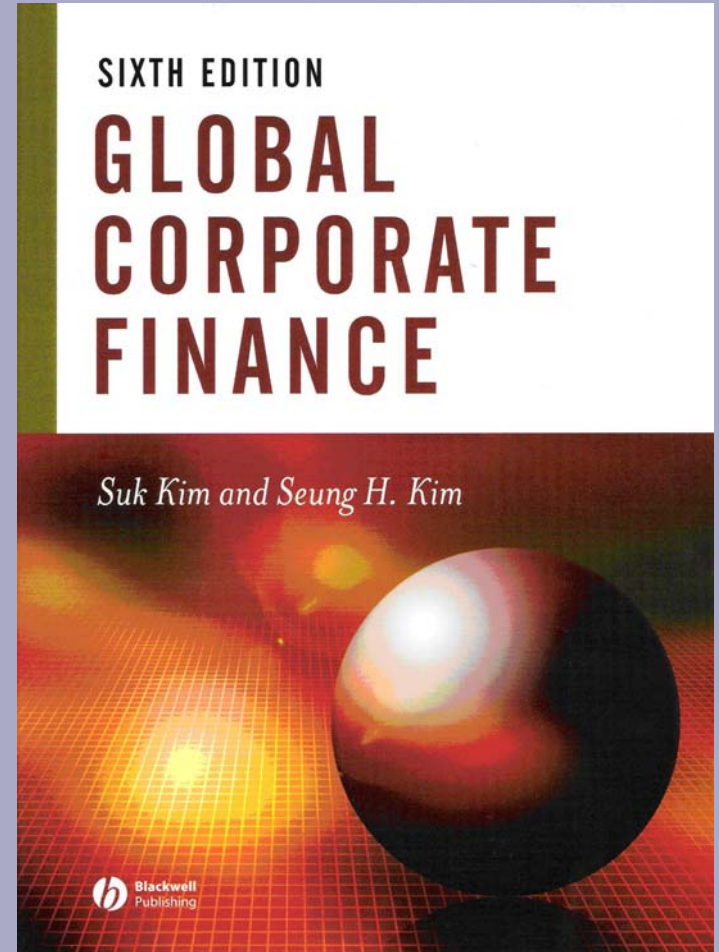
INTERNET EXERCISES



- Visit the website of the Private Export Funding Corporation (PEFCO) at <http://www.pefco.com> to answer the following questions.
 - What types of programs does PEFCO offer US exporters?
 - Define the three short-term facilities that PEFCO offers lenders.
 - What are the terms of the Short-Term Insured Loan Facility?
 - What are under-served markets and how can under-served market programs benefit from the Lender-Of-Last-Resort Program?
- Visit the website of the Foreign Credit Insurance Association (FCIA) at <http://www.fcia.com> to answer the following questions.
- What is FCIA's special risk insurance?
- Name two conditions which affect and benefit trade?
- Read the latest FCIA newsletter and Country Update. What country or region presents a high risk for exporters and would benefit from the special risk insurance.

CHAPTER 14

FINANCING FOREIGN INVESTMENT



Chapter 14 Major Sections

- **Section 1, Internal sources of funds**
 - **Section 2, External sources of funds**
 - **Section 3, Sources of funds from development banks**
- 

Opening Case 14:

Failed US-Vietnams Joint Ventures

Opening Case 14: Failed US–Vietnamese Joint Ventures

Since 1994, US companies have established joint ventures with Vietnamese businesses on everything from auto factories and cola bottlers to power plants and steak houses. American partners include Chrysler, Ford, Proctor & Gamble, Citibank, Caterpillar, and Nike. Many factors – more capital, less political risk, and local marketing expertise among others – favored US–Vietnamese joint ventures. However, many American investors are forsaking their enterprises because of heavy losses. Consequently, US investment in Vietnam dropped from \$635 million in 1996 to \$117 million in 1999. Investors from several other countries, such as Taiwan, Korea, and Japan, have also lost heavily in Vietnam.

A key example of a failed joint venture is American Rice. Its multimillion-dollar effort to build a rice business in the Mekong delta – one of the first and most prominent US ventures in Vietnam – had collapsed in 1998. American Rice's local partners had become enemies, the police threatened to put its employees in prison, and the Communist Party attacked the situation as the latest example of American imperialism. Many US companies in Vietnam today realize that they share all of American Rice's problems – poor legal protection, hostile joint-venture partners, heavy bureaucracy, and differences in culture. Because of its importance, let us review the case.

In early 1994, American Rice set up a joint venture with an influential local partner to sell Vietnamese rice overseas. With American Rice hungry for supply and Vietnam desperate for customers, the venture seemed ideal for both sides and for millions of struggling Vietnamese farmers. But what started as a partnership quickly became a contest. The local partner refused to grant American Rice permits for exports and charged the company new fees that doubled the costs of the joint venture.

A few months into the new venture, American Rice received permits to export only 30,000 tons, well below the 120,000 tons agreed upon. In 1995, American Rice won a contract to sell the government of Iran \$100 million of rice at the highest-ever price

for Vietnamese rice. The Vietnamese government, however, forced American Rice to give about half of the Iran contract to local exporters. American Rice's radical rice-buying program stirred further controversy. Rather than buying from pricey state-owned brokers or traders, American Rice purchased straight from the growers, thereby cutting costs and delivering higher prices for the farmers. Thus, many rice farmers were delighted, but the government was not pleased and said to American Rice: "We gave you a license to sell rice, not to start a social revolution."

In October 1996, the government announced that it was launching a probe of the American Rice venture. Investigators questioned the entire staff and combed through stacks of company receipts. The government concluded that American Rice had "materially" violated its investment license and the laws of Vietnam, and caused serious damage to its Vietnamese partner. When the report was leaked to the local press, American Rice became a lightning rod for anti-Americanism. After incurring more than \$3 million in losses, American Rice closed its Vietnamese venture in early 1998. No wonder, then, that in March 2000, Moody's Investor Service "pointed to the country's hesitance to allow further foreign participation in the economy" as a threat to progress.

Source: Robert Frank, "Withdrawal Pains: Americans Once Again Land in a Quagmire," The Wall Street Journal, Apr. 21, 2000, pp. A1, A6.

INTERNAL SOURCES OF FUNDS

1. Internal sources of funds from parents include:

- a. Equity contributions are necessary to own and control foreign operations.**
- b. Direct loans from parents to their subsidiaries are popular because of tax considerations and easy repatriations.**
- c. The parent's loan guarantees enable subsidiaries to borrow from local banks.**

INTERNAL SOURCES OF FUNDS

2. Internal sources of funds from operations include:

a. Profits (Retained Earning)

b. Depreciation or other non-cash outlays.



INTERNAL SOURCES OF FUNDS

3. Internal sources of funds from subsidiary include:

a. Loans from sister subsidiaries.

b. One subsidiary can increase its cash discount from 2/10 to 3/10 to its sister subsidiary.

c. One subsidiary can extend its credit terms from net 30 to net 40 to its sister subsidiary.

Global Finance in Action 14.1

Guidelines for adequate capitalization:

- a. Several ratios can be used to determine an optimum mix of debt and equity for overseas projects.
- b. The investor's own resources should be sufficient to cover its fixed costs.
- c. Equal amounts of debts and equity investments should be used to finance overseas projects
- d. The projected earnings from the overseas project should be a substantial multiple of its annual financing costs.

Global Finance in Action 14.1

Guidelines for Adequate Capitalization

MNCs are not only able to raise funds in international and national capital markets but also to take advantage of capital market imperfections throughout the world. This comparative advantage should theoretically allow MNCs to enjoy a lower cost of capital than competing domestic companies. Companies have a number of outside financial options from which to choose to finance their foreign investment projects. These external financial options include banks, government institutions, other types of financial intermediaries, and even the public sector in the host country. To avoid drawbacks inherent in the thin capitalization of foreign investment projects, companies usually seek an optimum capital structure. An optimum capital structure is defined as the combination of debt and equity that yields the lowest cost of capital.

Several ratios can be used to determine an optimum financing mix of debt and equity for overseas projects. Cassidy (1984) recommends a number of guidelines for companies to develop capitalization strategies for their overseas projects:

- 1 The investor's own resources should be sufficient to approximately cover the project investment in fixed assets. Outside financing should support investment in net working capital of the unit.
- 2 The ratio of outside financing to total capitalization of the project (the debt ratio) should generally be about 0.50. Thus, approximately equal amounts of outside debts and equity investments will be employed in the local project.
- 3 The projected earnings from the overseas project should provide adequate "interest coverage" for its intended outside debt service. To ensure continuing liquidity, these earnings should be a substantial multiple of the project's annual financial costs.

Source: G. T. Cassidy, "Financing Foreign Investments: The International Capital Markets," in Allen Sweeny and Robert Rachlin, eds., *Handbook for International Financial Management*, New York: McGraw-Hill, 1984, pp. 1-11.

EXTERNAL SOURCES OF FUNDS

1. External sources of funds from commercial banks include:

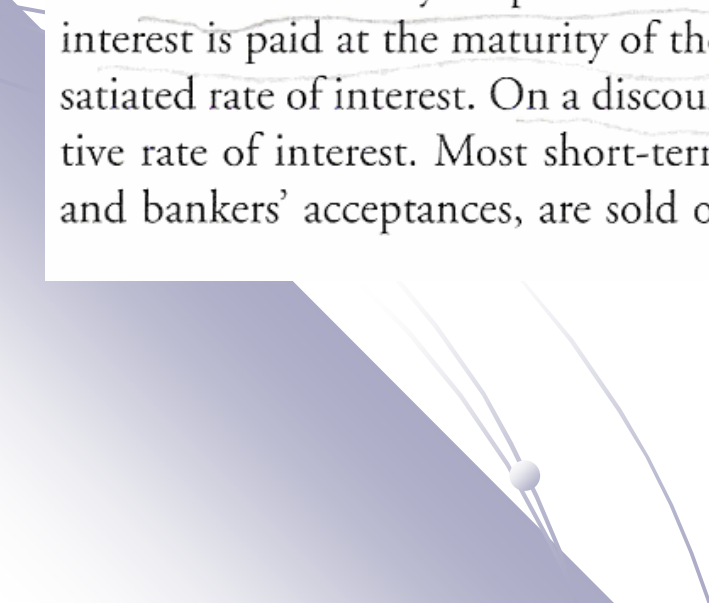
- a. Overdrafts**
- b. Unsecured short-term loans**
- c. Bridge loans**
- d. Currency swaps**
- e. Link financing.**

INTEREST RATES

Interest rates on bank loans

Interest rates on most business loans are determined through direct negotiations between the borrower and the bank. The prevailing prime lending rate and the creditworthiness of the borrower are the two major factors of the interest rate charged. The prime rate is the rate of interest charged on short-term business loans to the most creditworthy customers.

Interest rates may be paid on either a collect basis or on a discount basis. On a collect basis, interest is paid at the maturity of the loan, which makes the effective rate of interest equal to the satiated rate of interest. On a discount basis, interest is paid in advance, which increases the effective rate of interest. Most short-term securities, such as Treasury bills, euro commercial papers, and bankers' acceptances, are sold on a discount basis.



EFFECTIVE RATE OF INTEREST:

1. Collect basis

2. Discount Basis

Example 14.1

Assume that a company borrows \$10,000 at 10 percent. Compute the effective rate of interest for the loan on a collect basis as well as on a discount basis.

The effective rate of interest on a collect basis is:

$$\frac{\$1,000}{\$10,000} = \underline{10\%}$$

The effective rate of interest on a discount basis is:

$$\frac{\$1,000}{\$10,000 - \$1,000} = \underline{11.11\%}$$

COMPENSATING BALANCE

Example 14.2

Assume that a company borrows \$20,000 at 10 percent. Calculate the effective interest cost if the loan requires a minimum compensating balance of 20 percent (\$4,000) and it is on a discount basis.

The effective interest cost of the loan is:

$$\frac{\$2,000}{\$20,000 - \underline{\$4,000} - \underline{\$2,000}} = \underline{14.29\%}$$

CURRENCY MOVEMENT AND INTEREST RATES

CURRENCY MOVEMENT AND INTEREST RATES In reality, the value of the currency borrowed will change with respect to the borrower's local currency over time. The actual cost of a bank credit by the borrower depends on the interest rate charged by the bank and the movement in the borrowed currency's value over the life of the loan. Thus, the effective interest rate may differ from the interest rate that we computed in examples 14.1 and 14.2. In this case, the effective interest rate is computed as follows:

$$\underline{r = (1 + i_f)(1 + i_e) - 1} \quad (14.1)$$

where r is the effective interest rate in US dollar terms, i_f is the interest rate of the foreign currency, and i_e is the percentage change in the foreign currency against the US dollar.

CURRENCY MOVEMENT AND INTEREST RATES

Example 14.3

i_e

i_f

A US company borrows Swiss francs for 1 year at 10 percent. The franc appreciates from \$0.50 to \$0.60, or 20 percent, over the life of the loan. Interest on this loan is paid at maturity. The effective interest rate of the loan in US dollar terms is:

$$\begin{aligned} \underline{r} &= (1 + i_f)(1 + i_e) - 1 \\ r &= (1 + 0.10)(1 + 0.20) - 1 \\ &= 32\% \end{aligned}$$

EXTERNAL SOURCES OF FUNDS


2. Edge Act and Agreement Corporations of the US 1919.

a. Located in the US but engage in offshore banking operations.

b. Edge Act Corporations are chartered by the Fed Reserve Board, and Agreement Corporation are chartered by individual states.

EXTERNAL SOURCES OF FUNDS

c. Functions are: (Edge Act and Agreement Corporations typically engage in three types of activities):

1. **International banking**, which includes deposits, loans, letters of credits, and other normal banking operations.
 2. **International financing**, which includes long-term financing such as investment in stocks of non-bank financial institutions and development banks.
 3. **Holding company**, which owns shares of foreign banking subsidiaries and affiliates.
- 

EXTERNAL SOURCES OF FUNDS

3. International Banking Facilities (IBFs) of the US (since December 3rd 1981) function like foreign branch office of US bank but in USA.

IBFs are:

- a. A popular innovation in off-shore banking
- b. No physical facilities needed
- c. No permission needed
- d. Free from most regulations (reserve requirement)
- e. Should not do business with US residents.

EXTERNAL SOURCES OF FUNDS

4. Strategic alliances:

a. A strategic alliance is any collaborative agreement between two companies that is designed to attain some strategic goal.

b. Types of strategic alliance are:

- **Licensing agreements (royalties, fees and other agreement)**
- **Marketing arrangements or management contracts**
- **Joint ventures (two or more party have equity interest)**

EXTERNAL SOURCES OF FUNDS

5. Project finance

- a. **Project finance refers to an arrangement where a project sponsor finances a long-term capital project (i.e., Alaska oil pipeline or Euro Disney) on a non-recourse basis (i.e. the project sponsor has a legal and financial responsibilities for the project).**
- b. **Project finance is either a build-operate-own contract (BOO) or build-operate-transfer (BOT) project.**
In a BOO contract, the sponsor assumes ownership of the project at the end of the contract life.

In a BOT project, ownership of the project is transferred to the host government.

EXTERNAL SOURCES OF FUNDS

6. Development Banks are:

a. Established to support the economic development of developing countries.

b. International: i.e., World Bank

Regional: i.e., Inter-American Development Bank

National : i.e., Agency for International Development.

INTERNET EXERCISES

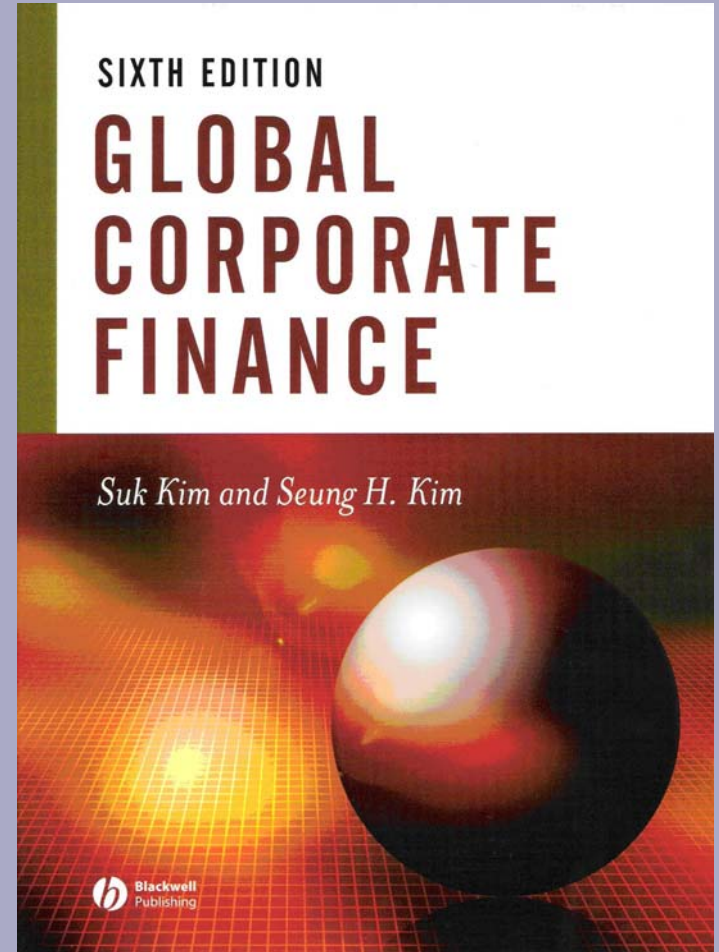


- Visit the website of the World Bank Group at <http://www.worldbank.org> and read about the International Bank for Reconstruction and Development (IBRD).
 - What was the amount of total lending in the last fiscal year? How many new operations were approved globally with this total amount?
 - Describe the share of total lending per region as a percentage of the total fiscal lending. Which region received the highest share of total lending?
 - What percentage of the total lending was allocated to the theme of Financial and Private Sector Development globally?
 - What percentage of the total lending was allocated to the sector of Industry and Trade?
- Visit the website of the European Bank for Reconstruction and Development (EBRD) at <http://www.ebrd.com>. How does EBRD define large, medium, small, and micro projects in euros? Would an oil development in Azerbaijan qualify for a loan? What other services does EBRD provide?

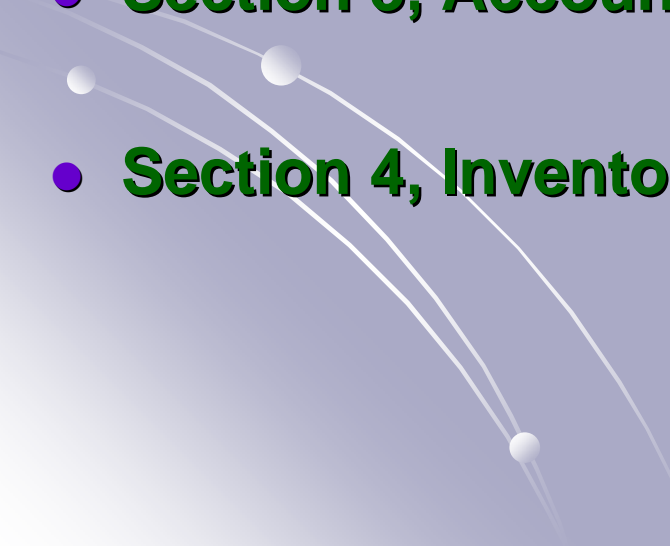
CHAPTER 15

INTERNATIONAL WORKING CAPITAL MANAGEMENT

**(managing current assets
and current liabilities)**



Chapter 15 Major Sections

- **Section 1, The Basic Concepts of Working Capital Management**
 - **Section 2, Cash Management**
 - **Section 3, Accounts Receivable Management**
 - **Section 4, Inventory Management**
- 

Opening Case 15: An Efficient Global Treasury Structure

Opening Case 15: An Efficient Global Treasury Structure

GeoLogistics Corp. was formed in February 1996 as a global provider of logistics and transportation services for manufacturers and distributors in technology, communications, and aerospace. The company executed five major acquisitions within 30 months and its 1999 sales reached \$1.5 billion, 50 percent of which came from outside North America. The company is now a global organization with operations in 32 countries around the world. As the company expands its network through acquisitions, the need for greater control over international treasury operations becomes obvious. With more than 80 banks serving 30 countries in Europe and Asia, it is a challenge for the company to find workable solutions that meet its needs and budgets.

GeoLogistics decided to establish an efficient global treasury structure that would reduce debt, improve settlement practices, and increase the efficiency of cash management. The company selected ABN AMRO Bank of Ireland as its sole treasury-service provider. Ireland was attractive because of favorable tax environments and agency or outsourcing capabilities, which meet GeoLogistics' needs. The Dublin International Financial Service Center (IFSC) was established by the Irish government in 1987 to provide licenses to financial institutions, which offer treasury agency services to foreign companies. ABN had an established IFSC agency capability, an international network, and the treasury outsourcing expertise to achieve the company's objectives.

GeoLogistics' operational guidelines for ABN outlined policies for investments, lending, funding, foreign exchange, disbursements, and financial reporting. Under these guidelines, ABN has reduced the company's idle cash by \$20 million per year, with a corresponding reduction in external debt. Specifically, to improve the company treasury services, ABN centralized all intercompany lending and hedging activity

through a single IFSC vehicle; established a monthly netting system; designed an effective euro-based cash pool, and increased control with a simplified structure.

Source: Terry Clark and Tom Maleese, "Achieving an Efficient Global Treasury Structure," *Euromoney*, Mar. 2000, pp. 40-2.

Geo-Logistics Corp. (formed 1996), is an efficient global structure that would

- Reduce Debt
- Improve Settlement Practice
- Increases the Efficacy of Cash Management

BASIC CONCEPT OF WORKING CAPITAL (current assets) MANAGEMENT

- 1. Because MNCs operate across national borders, they face **economic constraints** of working capital management which include:**
 - a. Foreign exchange constraints**
 - b. Regulatory constraints**
 - c. Tax constraints.**

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT

- 2. a. **The ability to adjust fund flows** among 180 countries is one of the biggest advantages to MNCs (profits on a global basis).
 - b. Many fund transfer techniques are **questionable** and there are many conflicts of interest.
-
- 3. **Positioning of funds** involves the choice of location and the choice of currency denomination (position working cash balance or excess liquidity within an NMC).

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT

4. Arbitrage opportunities:

- a. Tax arbitrage:** different tax laws allow MNCs to reduce tax burden by shifting profits from country to country.
- b. Financial market arbitrage:** different financial markets allow MNCs to earn more from investment and to reduce costs from financing.
- c. Regulatory arbitrage:** different regulations allow MNCs to circumvent exchange and price controls.

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT

5. Different channels to move funds:

1. Multilateral netting is a method to reduce foreign exchange cost through consolidation of accounts payable and accounts receivable among related entities.

2. Leads and lags are payments of financial obligations earlier (leads) or later (lags) than are expected or required.

3. MNCs can adjust **transfer prices** up or down to avoid financial problems or improve financial conditions.

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT

- 4. Re-invoicing centers** are established in tax haven countries and take titles to all goods sold to one corporate unit to other affiliates or independent customers.
- 5. Intracompany loans** (as compared with equity investments) provide MNCs with tax benefits and easy repatriation (credit swap, and parallel loans).

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT

6. Payment adjustments can be made through:

- a. Fees** are compensations for managerial services and technical assistance.
- b. Royalties** are paid to use certain technologies, patents, and trademarks.

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT

7. Unbundling international fund transfers:

a. Categorization of remittances for each purpose makes it easier for MNCs to recover funds from their affiliates.

b. Unbundling fund transfers is useful for business operations in countries where interest and dividend profits are considered unfavorable.

CASH MANAGEMENT

Cash gives an MNC the ability to pay bills as they come due.

1. Objectives are :

a. To optimize cash flow movements.

b. To invest excess funds.



CASH MANAGEMENT

2. Floats are used to reduce opportunity cost and exchange rate risk by shortening the following types of floats.

- a. Invoicing float
- b. Mail float
- c. Processing float
- d. Transit float
- e. Disbursing float.

CASH MANAGEMENT

3. The **collect and disbursement of funds** to maximize cash availability, MNCs must accelerate collections and delay payments.
 - a. **To accelerate** collections, MNCs use lock boxes, cable remittances, electronic fund transfers, and SWIFT.
 - b. **To delay** payments, MNCs use mail, more frequent requisitions, and floats.
4. **Cash center**: MNCs use cash centers to invest more profitably, reduce overall financing costs, and reduce the total pool of cash without any loss in the level of production.

CASH MANAGEMENT

Investing excess funds:

1. Portfolio management:

- a. Under Policy 1, known as zero portfolio, access funds are used to pay the parent's short-term debt because any portfolio investment will earn less than the parent cost of short-term loans.**
- b. Under Policy 2, MNCs centralize cash management at headquarters.**
- c. Under Policy 3, MNCs centralize cash management in a few regions.**

CASH MANAGEMENT

2. Portfolio guidelines include:

a. Diversification

b. Marketability

c. Maturity

d. Safety

e. Daily review.



ACCOUNTS RECEIVABLE MANAGEMENT

- 1. Important considerations are tradeoffs between currency denomination and credit terms.**
 - a. If sales are denominated in a weak currency, higher prices and shorter credit terms are expected.**
 - b. If sales are denominated in a strong currency, lower prices and longer credit terms are expected.**

ACCOUNTS RECEIVABLE MANAGEMENT

2. Credit policy:

- a. Credit standards are used to determine the acceptability of loan applications and credit limits. Credit standards depend on five C's of credit factors: character, capital, collateral, capacity, and economic condition.**
- b. Credit terms have to do with cash discount and credit period, such as 2/10, net 30: the opportunity cost of terms 2/10, net 30 = $2/(100 - 2) \times 360/20 = 37\%$.**
- c. Collection policy has to do with overdue accounts. To collect overdue accounts, MNCs use letters (fax and cables), phone calls, personal visits, and last resorts (forgiveness, legal action, and use of collection agency).**

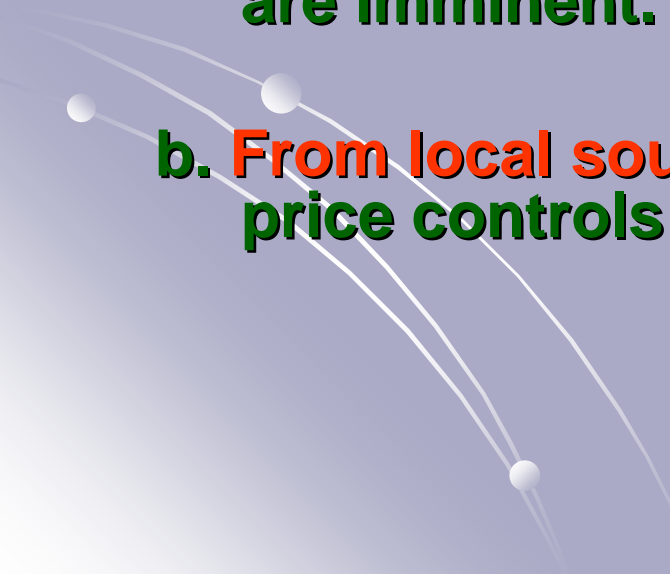
ACCOUNTS RECEIVABLE MANAGEMENT

3. How to avoid currency value problems:

a. For intrafirm (Intra-company) sales, MNCs use leading and lagging.

b. For sales to independent customers, MNCs use currency denominations and factors.

INVENTORY MANAGEMENT

- 1. The basic purpose is to minimize the investment on inventory.**
 - 2. Advance purchases and stockpiling are necessary:**
 - a. From abroad:** if devaluation and import restrictions are imminent.
 - b. From local sources:** if inflation and termination of price controls are likely.
- 

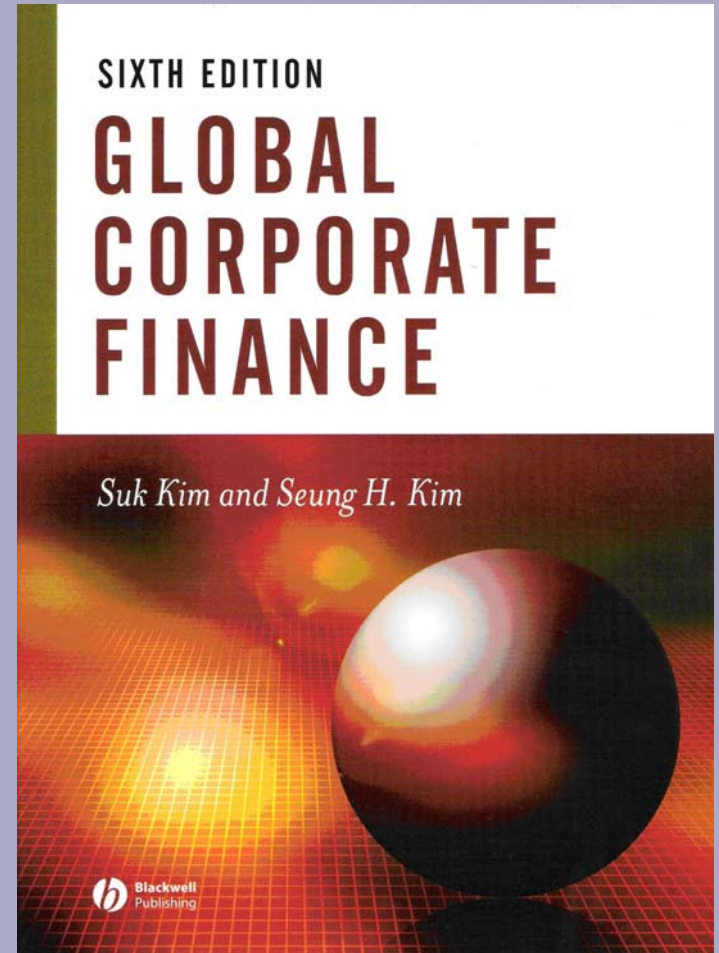
INTERNET EXERCISES



- Visit the Bloomberg's web site at [<http://www.bloomberg.com>](http://www.bloomberg.com) to answer the following questions:
- 1 . Review the three-month interest rates of the countries listed to determine the country with the lowest rate and the country with the highest interest rate?
 2. What is the best country to borrow short-term funds from?
 3. Search this site for news items and country analysis on the countries you have chosen in your answer to Questions 1 and 2 and explain the possible reasons for the high and low rates.

CHAPTER 16

INTERNATIONAL PORTFOLIO INVESTMENT



Chapter 16 Major Sections

- **Section 1, Key Terminology**
 - **Section 2, The Benefits of International Diversification**
 - **Section 3, Methods of International Diversification**
- 

Opening Case 16:

LG Group Shows how Korea Inc. Might Restructure

Opening Case 16: LG Group Shows how Korea Inc. Might Restructure

Amid a spate of corporate scandals that questioned the durability of South Korea's reforms for the post-Asian financial crisis era, the LG Group has completed a transformation which could prove to be a test case for one of the country's biggest challenges – restructuring big business. LG is the country's second-largest chaebol, or family-owned conglomerate, with assets of \$49.5 billion and businesses ranging from electronics to financial services. The company dismantled its complex web of cross-shareholdings and reorganized most of its affiliates under a holding company, the LG Corp. "The greatest corporate action in Korea so far is LG Group's restructuring to a holding company," stated Wonki Lee, the head of equity research at Merrill Lynch in Seoul.

Chaebols prospered by forming intricate financial and business ties among group companies – profiting together and often bailing each other out during economic distress. In the process, they took Korea's economy from postwar devastation to the world's 12th-largest. Nevertheless, the Asian financial crisis of 1997–8 exposed chaebol mismanagement and corruption. Since then, they have struggled to solve these problems and polish a tarnished image so that they could compete more effectively on a global stage. The LG Group began its reincarnation by improving its financial profile. LG merged 15 companies into other affiliates, shed five noncore businesses, listed 20 more, attracted foreign investors, and placed 34 of its 51 affiliates under the LG Corp. umbrella.

The restructuring also clarified how much of the group was controlled by the founding Koo and Huh families, whose current patriarchs are Koo Bon Moo and Huh Chang

Soo. Together, they once controlled the entire conglomerate through small holdings in various affiliates. Through sales, equity swaps, and other deals, those stakes have been consolidated in their 59 percent LG Corp. stake. The holding company – whose earnings come solely from dividends and LG brand usage fees – sets group strategy, oversees unit management, and promotes the LG brand globally. The holding company aligns its interests with those of affiliate shareholders in terms of business strategy, financial status, and cash flows. Previously, the founders exercised unchallenged control over the entire conglomerate; now, the holding company has legal legitimacy and must act in a rational, accountable way, thus permitting unit independence.

The major purpose of this new structure is to increase corporate governance and transparency. The increased transparency is usually rewarded by the markets, with "good disclosure" stocks trading at higher valuation than those of their peers. Although it is difficult to isolate the effect of corporate openness on an overall share price, compelling circumstantial evidence shows that the more information a company releases, the better. Apparently, investors seem to believe that LG's transformation has improved corporate governance and created transparency at what was once an impenetrable tangle of interlocking companies. As shown in figure 16.1, LG affiliate shares have soared since LG launched its structure in March 2003.

To increase competitiveness and management efficiency by focusing on core businesses, the Board of LG Corp. voted to divide the company into LG Group and GS

Holdings on April 13, 2004. Company shareholders approved the plan at a special meeting on May 28, thereby establishing GS Holdings as a new company. LG Group took manufacturing units, while GS Holdings took logistics and service units. GS Holdings started its business with Huh Chang Soo as its first Chairman on July 1, 2004.

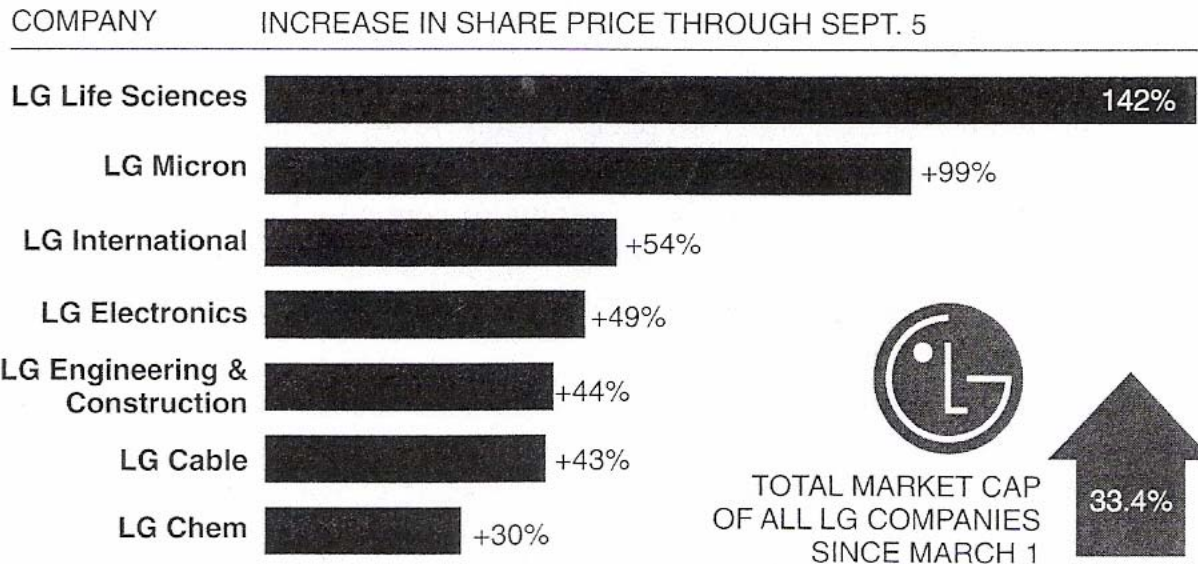
Sources: K. Song, "LG Group Shows how Korea Inc. Might Restructure," *The Wall Street Journal*, Sept. 12, 2003, p. A10; and W. H. Lee and S. H. Park, "LG Plans Split to Establish 2 Holding Firms," *JoongAng Daily*, Apr. 14, 2004, p. 3.

Opening Case 16:

LG Group Shows how Korea Inc. Might Restructure

All for One, and One for All

The shares of LG Corp. affiliates have risen sharply since the March 1, 2003, announcement of the chaebol's holding-company structure.



Source: LG Corp.

Figure 16.1 All for one, and one for all


KEY TERMINOLOGIES

1. RISK

- **Systematic risk** (undiversifiable risk) cannot be reduced or eliminated through diversification.
- **Unsystematic risk** (diversifiable risk) can be reduced or eliminated through diversification.


KEY TERMINOLOGIES

Type of Risk	Domestic	International
Systematic	Common to all firms: Ex.-- a country's tax laws, recessions, inflation	Common to all countries: Ex.-- worldwide wars, energy situations, recessions
Unsystematic	To a particular firm: Ex-- a firm's wildcat strike, new competitor	To a particular country: Ex.-- a country's recessions, currency control, inflation



KEY TERMINOLOGIES

2. Market portfolio is a fully diversified group of risky securities such as Dow Jones Industrial Averages, Standard & Poor's 500 stocks, or the Nikkei Index of Japan.



CAPITAL ASSET PRICING MODEL (CAPM)

1. If capital markets are perfectly efficient, then
expected rate of return = required rate of return.
 - a. Security market line $R_j = k_j = R_f + (R_m - R_f)\beta_j$ (see Figure 16-2)
 - b. If markets are not perfectly efficient, then we may have undervalued stocks or overvalued stocks:
 - **Undervalued** stocks: If $R_j > R_f + (R_m - R_f)\beta_j$ (see Figure 16-2)
 - Overvalued** stocks: If $R_j < R_f + (R_m - R_f)\beta_j$ (see Figure 16-2)
 - c. Beta coefficient: $\beta_j = [(R_j - R_f)/(R_m - R_f)]$ for perfectly efficient market.

SECURITY MARKET LINE

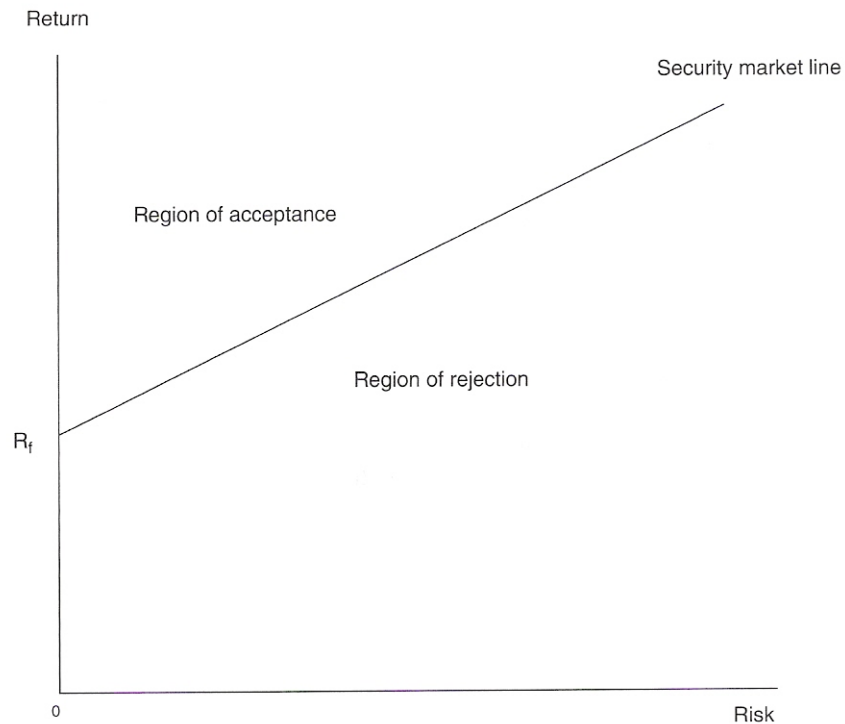


Figure 16.2 The security market line

CAPITAL ASSET PRICING MODEL (CAPM)

β_j reflects the systematic risk of stock. It classify stock into:

- 1) Aggressive and**
- 2) Defensive stocks.**

2. Aggressive vs Defensive Stocks:

If $\beta_j > 1$: aggressive stock, their returns rise (fall) more than the market index rise (fall).

If $\beta_j < 1$: defensive stock, their returns fluctuate less than the market index.

If $\beta_j = 1$: neutral stock.

CAPITAL ASSET PRICING MODEL (CAPM)

3. Correlation coefficients:

- a** Correlation coefficient is the degree of correlation between two securities and range from **zero** (no correlation or independent) to ± 1 (perfect correlation).
- b** **Diversification** is most effective under conditions of perfectly negative correlation (correlation coefficient = **-1**).
- c** **Diversification does not reduce risk at all** under conditions of perfectly positive correlation (correlation coefficient = **+1**).

EFFICIENT FRONTIER

1. **Efficient portfolio** is a portfolio that gives the **highest return** for a given level of risk (see point W in Figure 16-3) or the **smallest risk** for a given level of return (see point A in Figure 16-3).
2. **Efficient frontier** is a **locus of all efficient portfolios** (see curve AW in Figure 16-3).
3. **Optimal portfolio** is the tangency point between the **security market line** and the **efficient frontier** (see point M in Figure 16-4).

AN EFFICIENT FRONTIER

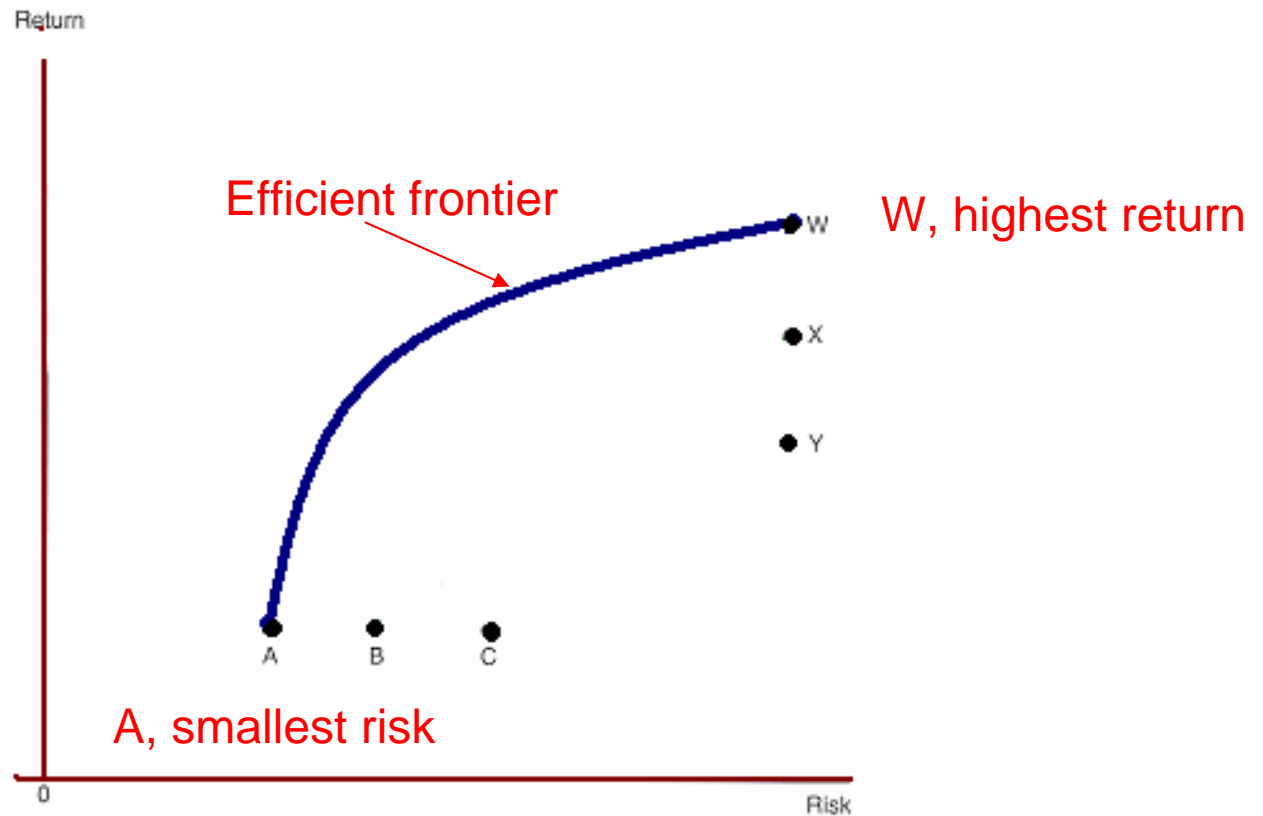


Figure 16.3 An efficient frontier

AN OPTIMAL PORTFOLIO

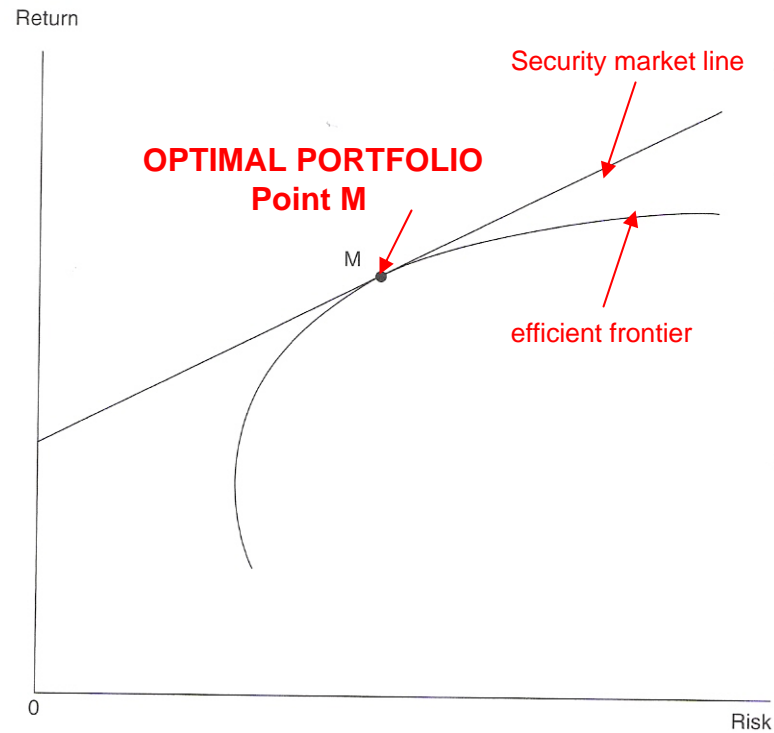


Figure 16.4 An optimal portfolio

BENEFITS OF INTERNATIONAL DIVERSIFICATION (ID)

- 1. Intercountry** correlations are low because countries have different geographic locations, independent economic policies, and different endowments of natural resources.
- 2. Low intercountry correlations** imply that much of the stock market risk in an individual country is unsystematic and so can be reduced by ID (see Figure 16-5).
- 3. ID** could allow investors to earn more money at lower risk because of low intercountry correlations (see Figure 16-6).

CORROLATIONS OF MAJOR STOCK MARKET RETURNS FROM 1980 TO 2001

Table 16.3 Correlations of major stock market returns from 1980 to 2001

	AU	CA	FR	GE	IT	JA	NE	SW	UK	US
Australia	1.00									
Canada	0.60	1.00								
France	0.37	0.46	1.00							
Germany	0.34	0.42	0.69	1.00						
Italy	0.25	0.35	0.50	0.43	1.00					
Japan	0.33	0.33	0.41	0.33	0.37	1.00				
The Netherlands	0.44	0.58	0.66	0.71	0.44	0.42	1.00			
Sweden	0.44	0.49	0.49	0.57	0.44	0.39	0.54	1.00		
UK	0.54	0.57	0.57	0.50	0.38	0.42	0.70	0.51	1.00	
USA	0.47	0.74	0.50	0.45	0.31	0.29	0.62	0.49	0.58	1.00

Source: Monthly issues of Morgan Stanley's *Capital International Perspectives*.

BENEFITS OF INTERNATIONAL DIVERSIFICATION (ID)

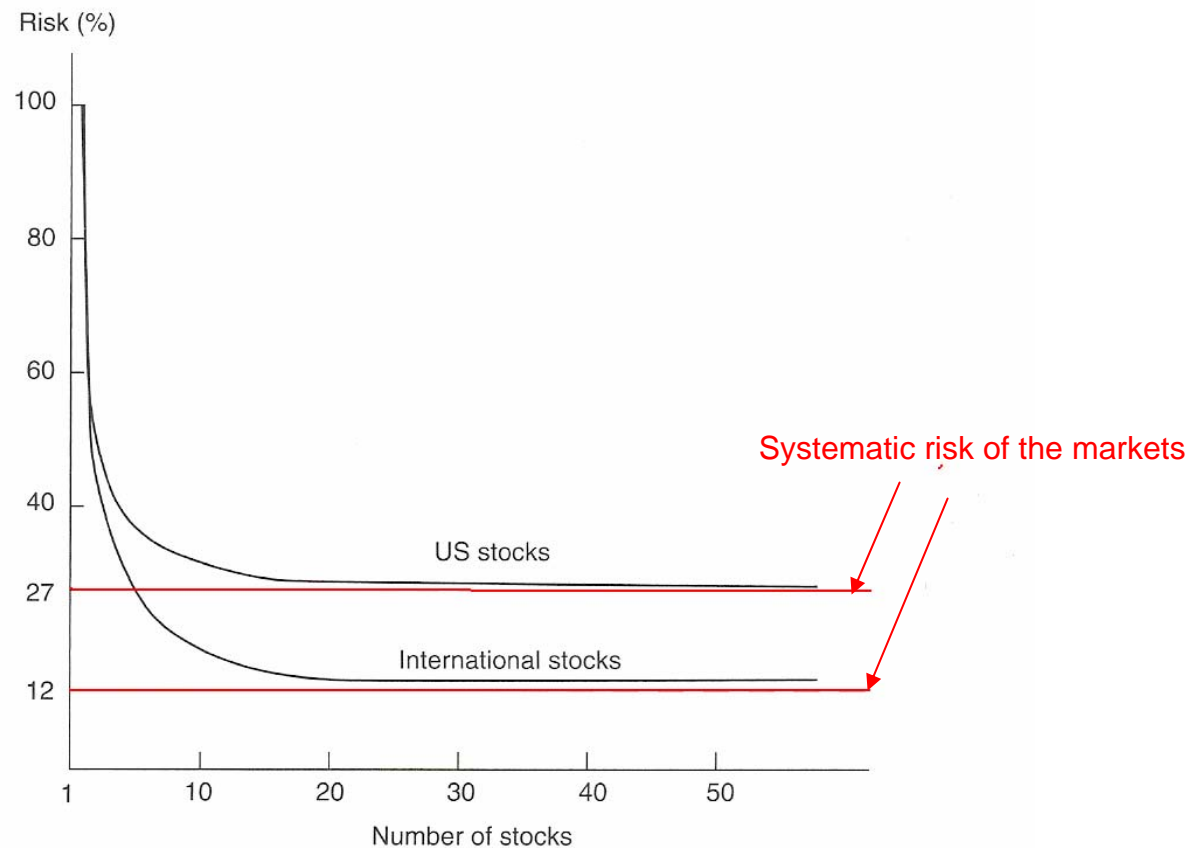


Figure 16.5 Gains from international diversification

Source: B. Solnik, *International Investments*, Reading, MA: Addison-Wesley, 1999, p. 126.

INTERNATIONAL PORTFOLIO

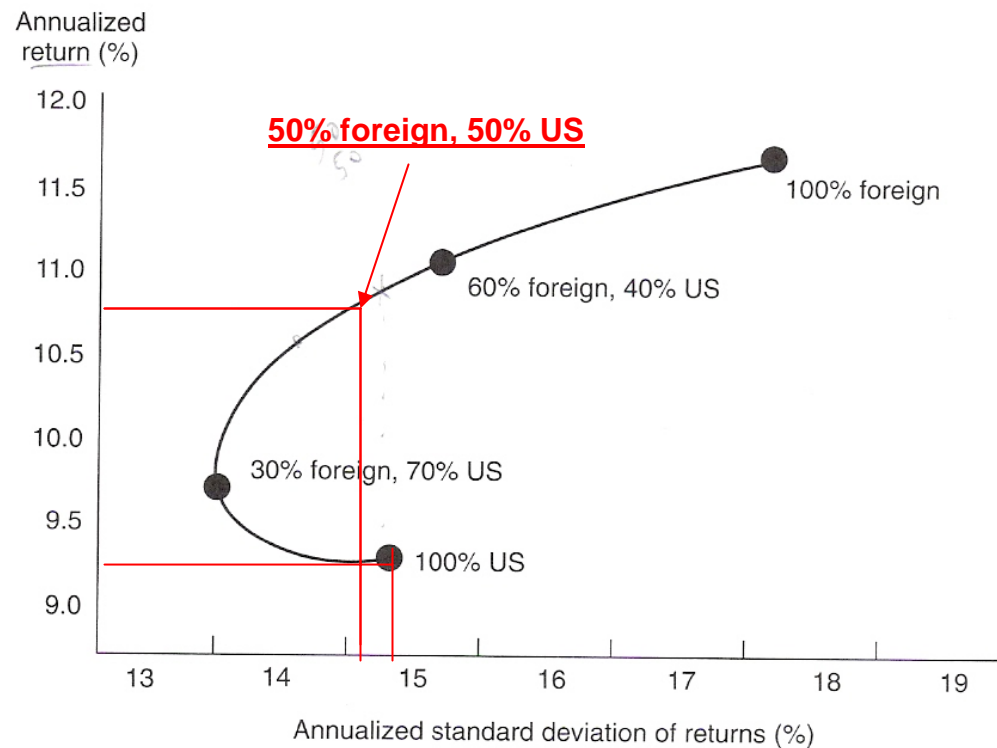


Figure 16.6 Risk-return trade-offs of international portfolios, 1926-97

Source: Morgan Stanley Capital Investment.

METHODS OF INTERNATIONAL DIVERSIFICATION FOR US INVESTORS

- 1. International mutual funds** are mutual funds that contain securities of foreign companies.
- 2. American depository receipts**, traded in US stock exchanges, are the ownership of underlying foreign stocks which are held in custody by the bank that issue them.
- 3. Hedge funds** are private partnerships that bet on cross-border mergers and acquisitions, securities, or currencies.

METHODS OF INTERNATIONAL DIVERSIFICATION FOR US INVESTORS

- 4. Direct purchases** of foreign securities.
- 5. Investment** in US multinational companies.
- 6. Global investing:** A domestic fund manager has just one way to beat the competition, by making better stock picks, but an international fund manager has three ways to add value, by picking countries, by picking currencies, and by picking stocks.

EFFICIENT INTERNATIONAL PORTFOLIO

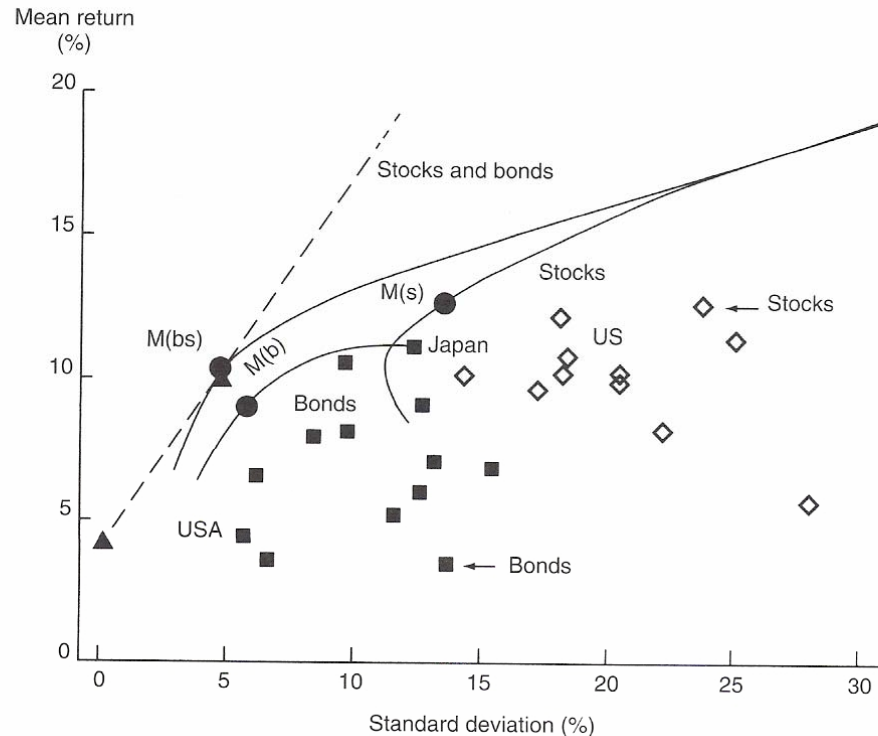


Figure 16.7 Efficient international portfolios

Source: H. Levy and Z. Lerman, "The Benefits of International Diversification in Bonds", *Financial Analysts Journal*, Sept./Oct. 1988, p. 62.

Global Finance in Action 16.1

Global Finance in Action 16.1

The Near Collapse of a Prominent Hedge Fund

In late September 1998, a group of large financial institutions urgently invested \$3.5 billion in Long-Term Capital Management (LTCM), a prominent hedge fund, to prevent its imminent collapse. These firms – Goldman Sachs, Merrill Lynch, Morgan Stanley Dean Witter, J. P. Morgan, Chase Manhattan, United Bank of Switzerland, and several others – had been encouraged to undertake the rescue by the Federal Reserve Bank of New York, which feared that a sudden failure of the fund could significantly disrupt world financial markets. The label “hedge fund” refers to investment companies that are unregulated because they restrict participation to a relatively small number of wealthy investors. The amount invested in hedge funds reached about \$300 billion by mid-1998.

The LTCM was formed in 1994, by a former Salomon vice chairman John Meirwellen, two Nobel laureates Robert Merton and Myron Scholes, former students of Professors Merton and Scholes, and several other prominent investors. The fund posted profits of 43 percent in 1995 and 41 percent in 1996. However, in August 1998 alone, LTCM's positions dropped 40 percent as a result of financial crises in Russia and several other countries. These bad outcomes were compounded by the huge amount of debt that LTCM had used to finance its transactions. Like other hedge funds, LTCM used derivative instruments to structure its investment transactions. Before its final crisis, LTCM had only \$4 billion of equity capital, but over \$100 billion

in futures contracts, forward contracts, options, swaps, and other assets.

How could some of the world's best-known investors, some of the most famous economists, and some of the smartest mathematicians get crushed so quickly? LTCM had made a variety of investments all over the world, focused primarily on the expectation that various financial markets spread and volatility would converge to their historical norms. LTCM's leverage and its trading strategies made it vulnerable to the extraordinary financial market conditions that emerged after Russia's devaluation of the ruble and declaration of a debt moratorium on August 17, 1998.

Russia's actions sparked “a flight to quality” in which investors avoided risk and sought out quality. As a result, volatility, risk, and liquidity spreads rose sharply in markets around the world. For example, LTCM had made heavy bets that interest rates throughout Europe would move closer together as many of its nations moved toward monetary union. But with investors suddenly more eager to buy deutsche mark bonds, the spread between German and other European-government bonds widened rapidly – precisely what LTCM had bet against and thus causing the fund's bets to lose money. In another instance, the yield spread between US Treasuries and private securities also sharply widened – again what the fund had bet against.

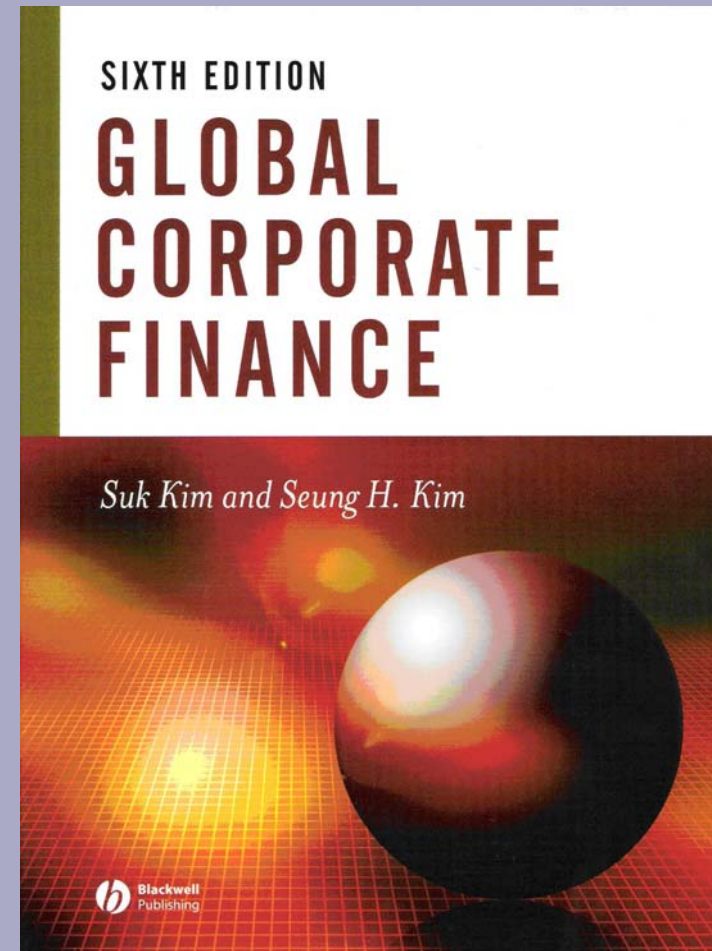
INTERNET EXERCISES



- Visit the Web site <<http://www.adr.com>> and then click on market overview to review the stock performance of ADRs of different countries. The web site provides a table that shows information about countries that have issued ADRs and returns every six month or per year. Click on any particular country of interest to review the performance of individual ADRs from that country.
- 2. Visit the Web site <<http://biz.yahoo.com/funds/>>, click on top performers to review the performance of top mutual funds, and then conduct a comparative analysis of performance for international mutual funds and purely domestic portfolios.

CHAPTER 17

CORPORATE STRATEGY AND FOREIGN DIRECT INVESTMENT



Chapter 17 Major Sections

- **Section 1, An Overview of Foreign Direct Investment**
 - **Section 2, Foreign Direct Investment in Developing Countries**
 - **Section 3, Cross Border Mergers and Acquisitions**
- 

Opening Case 17:

How Can Companies Get the Most Out of Their Foreign Investment?

Opening Case 17: How Can Companies Get the Most Out of Their Foreign Investment?

We can classify the benefits of foreign direct investment into two broad categories: tangible and intangible. Some benefits, such as reductions in labor, capital, and logistics costs, are tangible and easy to measure; others, such as new ideas from foreign research centers, customers, and suppliers, are intangible and difficult to measure. If foreign manufacturing operations play a negligible strategic role, the tangible benefits usually dominate the decision to manufacture abroad. As a company upgrades the strategic role of its foreign manufacturing operations, however, it stresses the intangible benefits more.


Many multinational companies (MNCs) establish and manage their foreign plants only for the benefits of tax concessions, cheap labor, and capital subsidies. However, Ferdows (1997) argues that higher market share and greater profits can only be achieved if both tangible and intangible benefits are realized. When an MNC employs a foreign plant to produce intangible benefits, the plant will have a better chance to be innovative, to be productive, to achieve low costs, and to provide exemplary service to customers throughout the world. To get more out of its foreign factories, therefore, the MNC should use them to get closer to their customers and suppliers, to attract skilled and talented employees, and to create centers of expertise for the entire company.

Some companies indeed invest abroad to seek technology, managerial expertise, and other intangible benefits. For example, German, Japanese, and Korean companies have purchased US-based electronics firms for their technology. Take a look at LG's acquisition of Zenith as an example. On July 17, 1995, LG Electronics of Korea

acquired Zenith, the last remaining TV manufacturer in the United States, to obtain its HDTV and multimedia technologies. This is because changes in international competitiveness had compelled LG to engage in its own aggressive research and development.

Source: K. Ferdows, "Making the Most of Foreign Factories," *Harvard Business Review*, Mar./Apr. 1997, p. 82.

BENEFITS OF FOREIGN DIRECT INVESTMENT

- 1. Company benefits include oligopoly-created advantages, such as proprietary technology, management know-how, international distribution network, and access to scarce raw materials, economies of scale, and strong brand or trade name.**
- 

BENEFITS OF FOREIGN DIRECT INVESTMENT

- 2. Company benefits of foreign investment classified by Ferdows include those that are intangible (i.e., ideas from foreign research centers) and tangible (i.e., low wages).**
- 3. Host-country benefits include transfer of technology, higher employment, learning management skills, and increased tax revenues and exports.**

MODES OF FOREIGN INVESTMENT

- 1. Construction of new plants (internal growth)**
 - 2. Mergers and acquisitions (external growth)**
 - 3. Joint ventures**
 - 4. Licensing agreement**
 - 5. Franchising agreement**
 - 6. Contract manufacturing**
- 

DIRECT INVESTMENT IN THE THIRD WORLD

- 1. Investment in the Third World fell since 2001 because of:**
 - a. In 2003, China for the first time attracted more foreign investment than the US, but the overall investment fell because of a slowdown in privatization and mergers-and-acquisitions transactions.**
 - b. The dip in foreign investment flows in 2003 was almost entirely due to the decline in the flows to Latin America and the Caribbean.**

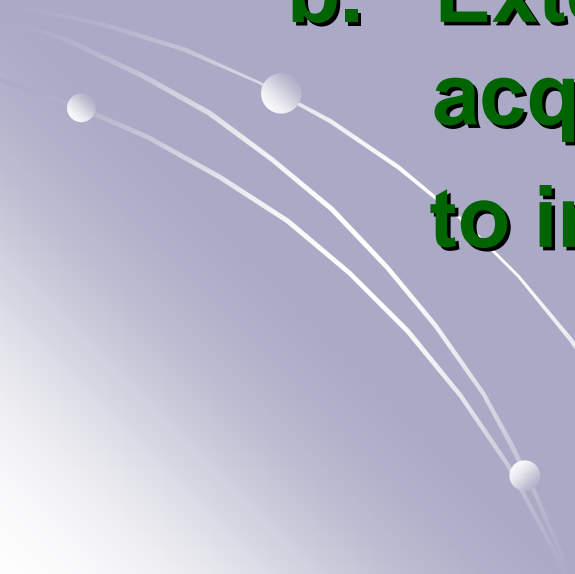
DIRECT INVESTMENT IN THE THIRD WORLD

2. Obstacles for foreign investment:

- a. Unavoidable obstacles include bad roads, poor port facilities, and lack of skilled workers.**
- b. Under inadvertent obstacles, governments permit obstacles to exist but for reasons other than their impact on foreign investment; an example is communism in Cuba.**
- c. Unintended obstacles include excessive red tape, corruptions in the courts, and different political systems.**

CROSS-BORDER MERGERS AND ACQUISITIONS

1.

- a. Internal growth is natural and economical, but it is too slow.**
 - b. External growth--mergers and acquisitions--is an alternative to internal growth.**
- 

CROSS-BORDER MERGERS AND ACQUISITIONS

2. Mergers and corporate governance

- a. The market-based system of corporate governance used in the US disciplines inefficient management through either friendly takeovers or hostile takeovers because this system is characterized by a highly diversified equity ownership, a large portion of public debt and equity capital, and an independent management team.**

CROSS-BORDER MERGERS AND ACQUISITIONS

- b. In the bank-based system of corporate governance used in Japan, hostile acquisitions are almost non-existent due to the concentration of equity ownership in the hands of the main bank and other keiretsu members.**
- c. Cross-holdings in Japan are weakening because the networks of mutual shareholdings have turned from benefit to burden.**

CROSS-BORDER MERGERS AND ACQUISITIONS

3. Some accounting aspects of mergers

- a. Under the pooling-of-interest method, the items on the balance sheets of the two companies are added together so that the merger would not create goodwill.**

CROSS-BORDER MERGERS AND ACQUISITIONS

- b. Under the purchase-of-assets method, the acquired assets or companies are recorded in the accounts of the acquiring company at the market values of assets given in exchange. Thus, this method could create goodwill.**
- c. Because the purchase-of-assets method can create goodwill that may result in lower reported earnings, it is not popular in practice.**

FACTORS AFFECTING ACQUISITIONS: VALUE OF THE FIRM

A company's acquisition of another firm is economically justified only if it increases the total value of the company.

- Value of the Firm =
$$\frac{\text{earnings before taxes (1 - tax rate)}}{\text{capitalization rate}}$$

FACTORS AFFECTING ACQUISITIONS: VALUE OF THE FIRM

- 1. Acquisitions will increase earnings before taxes because of synergistic effects and diversification.**
- 2. Acquisitions will result in lower taxes because of tax carry forward and carry backward and other tax benefits.**
- 3. Acquisitions will reduce the capitalization rate (required rate of return or the cost of capital) because of better marketability for securities and better known among investors.**

FACTORS AFFECTING ACQUISITIONS: VALUE OF THE FIRM

- 4. Acquisitions will increase debt capacity without additional risk because of greater borrowing ability and under use of debt by some firms.
The appropriate mix of debt and equity reduces the overall cost of capital and thus raises the market value of the firm.**
- 5. Other considerations, such as favorable exchange rate movements and removal of country barriers, are likely to increase the value of the acquiring company.**

INTERNET EXERCISES



- Visit the Web site

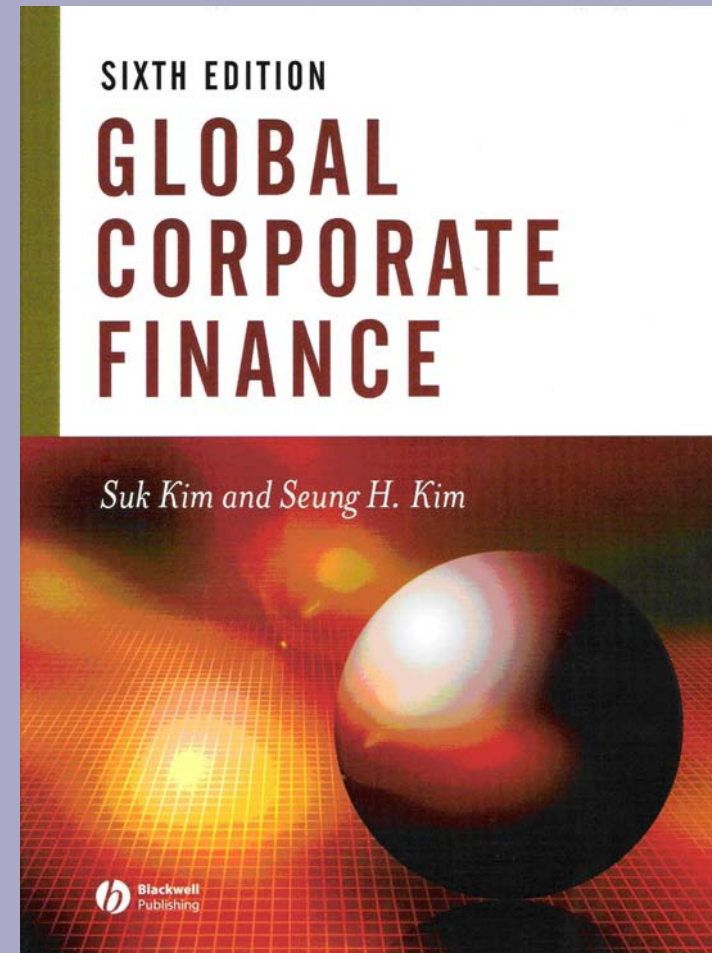
<http://www.export.gov/comm_svc>, click on market of the month, and then check the investment climate in this country. List the factors that make the country so favorable for foreign direct investment.

- Visit the Web site

<<http://www.unctad.org/statistics>>. Check the top ten developing countries whose economies the FDI hosts. What factors do you think account for these countries being large recipients of U.S FDI.

CHAPTER -18

INTERNATIONAL CAPITAL BUDGETING DECISIONS



Chapter 18 Major Sections

- **Section 1, The Foreign Investment Decision-Making Process**
 - **Section 2, Portfolio Theory**
 - **Section 3, Capital Budgeting Theory and Practice**
 - **Section 4, Political Risk Management**
- 

Opening case 18:

External Factors Affecting Foreign Project Analysis

Opening Case 18: External Factors Affecting Foreign Project Analysis

Foreign-exchange rates, interest rates, and inflation are three external factors that affect multinational companies (MNCs) and their markets. Changes in these three factors stem from several sources, such as economic conditions, government policies, monetary systems, and political risks. Each factor is a significant external variable that affects areas such as policy decisions, strategic planning, profit planning, and budget control. To minimize the possible negative impact of these factors, MNCs must establish and implement policies and practices that recognize and respond to their influences.

These three factors – exchange rates, interest rates, and inflation – affect sales budgets, expense budgets, capital budgeting, and cash budgets. However, they are particularly useful when evaluating international capital budgeting alternatives. Foreign-exchange rates have the most significant effect on the capital budgeting process. A foreign investment project will be affected by exchange rate fluctuations during the life of the project, but these fluctuations are difficult to forecast. There are methods of hedging against exchange rate risks, but most hedging techniques are used to cover short-term positions.

The cost of capital is used as a cutoff point to accept or reject a proposed project. Because the cost of capital is the weighted average cost of debt and equity, interest rates play a key role in a capital expenditure analysis. Most components of project cash flows – revenues, variable costs, and fixed costs – are likely to rise in line with inflation, but local price controls may not permit internal price adjustments. A capital expenditure analysis requires price projections for the entire life of the project. In some

countries, the inflation rate may exceed 100 percent during a 3-year period, a condition known as hyperinflation. These and other factors related to inflation make the capital budgeting process extremely difficult.

Source: Paul V. Mannino and Ken Milani, "Budgeting for an International Business," *Management Accounting*, Feb. 1992, pp. 36–41.

VARIABLES THAT REQUIRE FORECASTING

Because the foreign investment decision process involves the entire process of planning capital expenditures for many years to come, MNCs need **forecasts** of many **variables {10}** related to their foreign project.

1. **Initial investment** includes project cost and working capital to support the project over time.
2. **Demand** forecast should cover expected domestic and export **sales**.

VARIABLES THAT REQUIRE FORECASTING

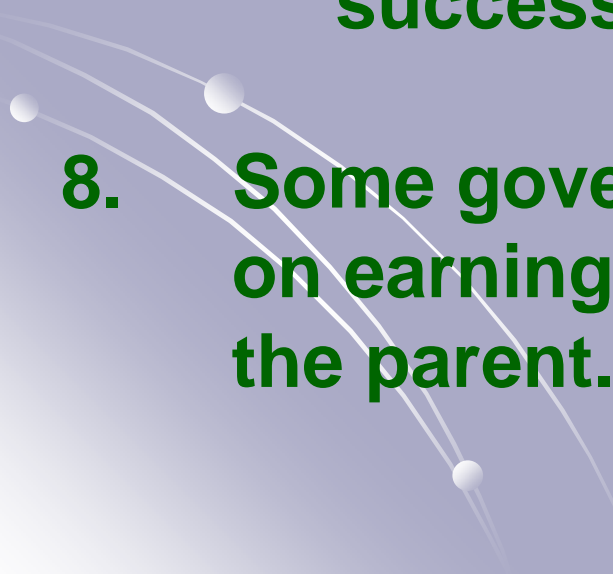
3. **Prices** of the product to be produced by the project will depend largely on competition and the host government policy.
4. **Variable cost** (i.e, direct labor and material costs) forecast will depend on the prevailing comparative costs of the components and inflation rates.
5. **Fixed costs** are easier to forecast than variable costs for two reasons: their time horizon is short and they are less sensitive to changes in demand.

VARIABLES THAT REQUIRE FORECASTING

6. Every project has three lives:
physical,
economic, and
tax.

- a. An **engineer** can forecast the **physical life**
- b. A **financial manager** can forecast the **economic life** (subjective).
- c. The **tax life** of a project depends on tax laws (objective).
- d. The **economic life** and the **tax life** are important in project analysis.

VARIABLES THAT REQUIRE FORECASTING

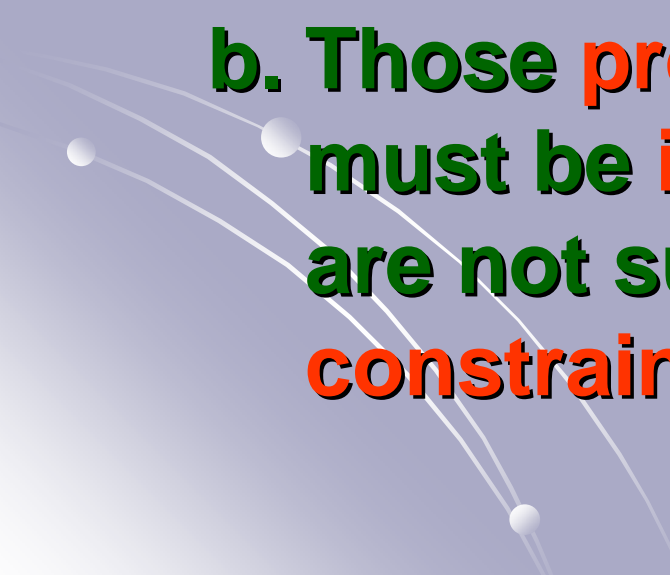
7. **Salvage value:**
 - a. Salvage value is the expected value of an asset at the end of its life.
 - b. Salvage value depends on the project's success and the government's attitude.
 8. Some governments impose **restrictions** on earnings transfer from subsidiaries to the parent.
- 

VARIABLES THAT REQUIRE FORECASTING

9. **Tax laws** differ across countries and a variety of tax abatements should be sought.

10. **Exchange rates** affect every international project. The impact of exchange rate changes on a project's cash flows is called economic exposure, which covers the entire project life and all aspects of operations.

ECONOMIC EVALUATION

- 1. Under an accept-reject decision criterion,**
 - a. MNCs usually accept all profitable projects.**
 - b. Those projects under consideration must be independent projects and are not subject to capital rationing constraints.**
- 

ECONOMIC EVALUATION

- 2. Under a mutually exclusive choice criterion,**
- a. At most one project is accepted.**
 - b. The project to be accepted must meet criterion 1 and have the highest rate of return among competing projects.**

Mutually exclusive projects = A group of projects that compete with each other in a way that the selection of one precludes all the others in the group.

ECONOMIC EVALUATION

3. Capital rationing constraints:

- a. A capital rationing constraint is the upper ceiling on the size of capital expenditures. MNCs accept projects from the top of the list until the capital budget is exhausted.**
- b. Those projects to be accepted must meet criterion 1, should be independent projects, and should not exceed the capital budget.**

ECONOMIC EVALUATION

4. Numerical example:

Project	IRR	Investment
A	25%	\$1,000
B	20	1,000
C	14	1,000
D	8	1,000

Assumptions: Cost of capital = $K = 10\%$, Capital budget = \$2,000

- a. Under accept-reject decision criterion, accept projects A, B, and C.**
- b. Under mutually exclusive-choice criterion, accept project A.**
- c. Under capital-rationing constraints, accept projects A and B.**

RISK ANALYSIS

1. Risk Assessment Techniques

Risk Adjustment Techniques

Standard deviation (σ)

Coefficient of variation (Cv)

Range

$$R = \sum_{i=1}^n \bar{R}_i P_i$$

$$\sigma = \left[\sum_{i=1}^n (R_i - \bar{R})^2 P_i \right]^{1/2}$$

$$Cv = \sigma / R$$

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1+k)^t} - C_0$$

$$K_j = R_f + (R_m - R_f) \beta_j$$

Risk adjusted discount rate

Certainty equivalent approach

Capital asset pricing model (CAPM)

(19.3)

RISK ANALYSIS

2. Each of pairs 1, 2, and 3 in the following table consist of two mutually exclusive projects:

Pair	Project	NPV (T)	Standard Deviation (σ)	$Cv = \sigma / R$
------	---------	------------	------------------------------------	-------------------

1	A	\$1,000	\$400	
	B	1,000	700	
2	C	900	400	
	D	600	400	
3	E	500	300	0.6
	F	300	210	0.7

RISK ANALYSIS

- a. Project A is better because it has **same NPV**, but **lower risk**.
- b. Project C is better because it has **same risk**, but **higher return**.
- c. If we compute the coefficient of variation (CV), we know that project E is better because it has **higher return and lower risk**.

$$\text{CV for E} = 300/500 = 0.60$$

$$\text{CV for F} = 210/300 = 0.70$$


- d. Unfortunately, most pairs are like projects X and Y, thus making it difficult to know which one is better.

$$\text{X: NPV} = \$500 \quad \text{CV} = 0.80$$

$$\text{Y: NPV} = \$400 \quad \text{CV} = 0.60$$

PORTFOLIO THEORY

Portfolio theory deals with the selection of investment projects that would minimize risk for a given rate of return, or that would maximize the rate of return for a given degree of risk.



PORTFOLIO THEORY

1. Example 18.2

Project A:

NPV = \$152; Standard, Deviation = \$1000

Project B:

NPV = -\$48; Standard, Deviation = \$1000

**B will be rejected because of its
negative NPV, and A will be rejected
because of its high risk.**

PORTFOLIO THEORY

2. Portfolio NPV = \$104; Portfolio Standard Deviation = \$0

- a. This portfolio will be accepted because it has a positive NPV without risk.**
- b. MNCs invest in many risky foreign projects but still make money because international diversification can eliminate or substantially reduce unsystematic risk.**

POLITICAL RISK ANALYSIS

1. Political risks can be divided into two broad categories:

- a. Operational restrictions** are actions that restrict the freedom of a foreign company to operate in a given host country
- b. Expropriation** includes sales of business assets to local shareholders, compulsory sales of business assets to host governments, and confiscation of business assets with or without compensation

POLITICAL RISK ANALYSIS

2. Political assessment techniques

- a. Delphi technique** (Combines the view of independent experts in order to obtain the degree of political risk)
- b. Grand tour** (Executive visiting the country)
- c. Old hand** (Depends upon the advice of an outside consultant)
- d. Quantitative analysis** (Statistical techniques to assess political risk)

POLITICAL RISK ANALYSIS

3. Defensive measures before investment

a. Concession agreements (Contractual obligation of the foreign investor and the host government)

b. Planned divestment (Provides for the sale of majority ownership in foreign affiliates to local nationals during a previously agreed – upon period of time)

c. Adaptation to host country goals (It is advisable for MNC's to voluntarily adapt to changing host- country priorities when ever possible)

POLITICAL RISK ANALYSIS

4. Defensive measures after investment

- a. Becoming a good citizen of the host country**
- b. Alleviating political risks**
- c. Joint ventures**

(To Diffuse political risks)

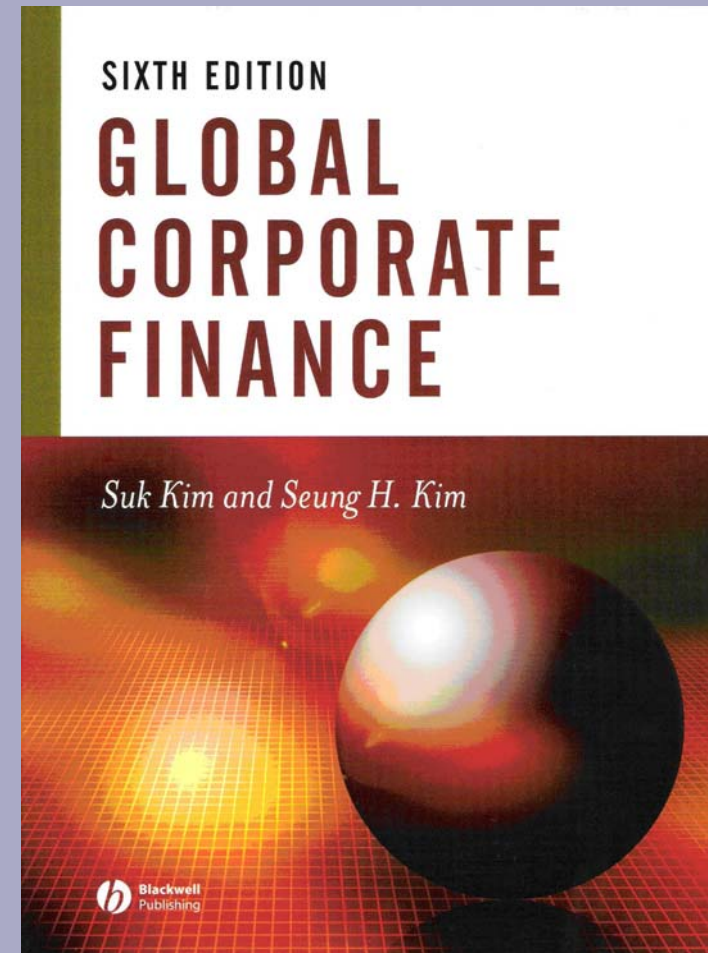
INTERNET EXERCISES



- Go to the site <<http://www.cofacerating.com>> and choose one country from each of the following areas: Africa, South America , Asia, Europe, and the Middle East. Study the risk assessments of these five countries and list types of operating strategies you will adopt to cope with these political risks?
- Visit the Web site <<http://www.globaledge.msu.edu/ibrd/ibrd.asp>> , click on country insights, and then **select five countries and compare five statistical indicators.** What do the comparisons indicate?

CHAPTER -19

THE COST OF CAPITAL FOR FOREIGN PROJECTS



Chapter 19 Major Sections

- **Section 1, The Weighted Average Cost of Capital**
 - **Section 2, The Optimum Capital Structure**
 - **Section 3, The Marginal Cost of Capital and Investment Decisions**
 - **Section 4, Cultural Values and Capital Structure**
- 

Opening case 19:

GM's Target Debt Ratio in its Overseas Expansion

Opening Case 19: GM's Target Debt Ratio in its Overseas Expansion

Analysts say that global vehicle production will double in the next 20 years. "Projected growth in the global auto industry is going to occur in places other than North America and Europe, and most of that growth is going to occur in Asia," said Jim Bright, a Ford spokesman in Detroit. Thus, it should come as no surprise that European, Japanese, and US automakers have been expanding their operations in Asia aggressively.

General Motors (GM) sold 443,000 vehicles in the Asia-Pacific market in 1998, which accounted for 4 percent of the market. And GM wished to expand its Asian market to 10 percent by 2005. To accomplish its sales goal, GM has recently begun to establish a strong presence in Asia through construction of new plants, acquisitions and alliances, and strategic partnerships (see figure 19.1). As part of its aggressive expansion in Asia, GM made an offer to buy Daewoo Motor of Korea for \$5.5 billion in December 1999. Daewoo Motors, the debt-laden number two Korean automaker, is an affiliate of the Daewoo Group, which is being dismantled by its creditors after amassing almost \$80 billion in liabilities.

GM's plan for Daewoo Motors includes a \$5.5 billion cash payment, its offer of a one-third equity stake to creditors, and its demand for creditors to write off a substantial portion of their Daewoo Motors' debt. All these financial arrangements are designed to insure that the new Daewoo Motors's balance sheet will reflect a debt ratio of 40 percent. Analysts think that this 40 percent debt ratio is GM's target debt ratio, the combination of equity and debt that minimizes its cost of capital and maximizes its market value. How did GM arrive at a 40 percent debt ratio? In fact, GM's

overall debt ratio of 1999 turned out to be approximately 40 percent. Apparently, GM has been using this 40 percent debt ratio as its successful formula in its foreign expansion.

GM's turnaround strategy for Daewoo Motors includes the following objectives: (1) reduce Daewoo Motors's debt ratio from 70 percent to 40 percent; (2) integrate its Korean supplier network into GM's global network; (3) dispatch an international management team to show up new management; (4) make it GM's global center of expertise for inexpensive cars and sport-utility vehicles; (5) expand its design and engineering capabilities; (6) acquire nearly all of its Korean vehicle-making operations; and (7) absorb most of its foreign units in Europe and Asia. GM, Daewoo Motors, and the Korean Development Bank signed final documents for acquisition by GM of Daewoo Motors in 2002. Under the agreement, a new company called GM Daewoo Auto and Technology was created. With the new management team in place, a solid stream of cash from GM, and improved operations, GM Daewoo has achieved significant productivity increases at its existing facilities, built new facilities, and revitalized the once-unstable product line. These factors and the turnaround strategy for this new company, along with the use of its target debt ratio, have enabled GM Daewoo to improve its financial performance significantly in the past few years.

In June 2003, however, GM backed away from its goal of achieving 10 percent market share in its Asia-Pacific business by 2005 and revised its strategy there – with much more focus on China and less on Japan. GM's market share fell from 5.7 percent in 2001 to 4.6 percent in 2002. During the first quarter of 2003, GM held about 4 percent of the market. GM still believes that most of the projected growth in the global automobile industry will be in Asian countries, such as China, South Korea, and

Thailand. GM's presence in Asia is formidable and will continue to grow, because otherwise it could risk losing its global leadership position. GM has automotive facilities and sales offices in 15 Asian countries. Main manufacturing and assembly operations are located in Australia, China, Indonesia, Korea, Vietnam, and Thailand.

Sources: "GM Offers Daewoo Creditors a Stake in Korean Firm in Exchange for Debt," *The Wall Street Journal*, Dec. 21, 1999, p. A3; "GM Pursues New Links with Japanese," *The Wall Street Journal*, Dec. 3, 1999, p. A3; "GM Alters Strategy in Asia Pacific," *The Detroit News*, June 12, 2003, pp. 1B, 4B; and www.gm.com.

Debt Ratio is
Total Debt / Total Assets

Opening case 19:

GM's Target Debt Ratio in its Overseas Expansion

GM OPERATIONS

- A joint venture in China called Shanghai GM, which started vehicle production in 1999
- A joint venture in China called Jinbei GM, which started production in 2000
- Plans to open an Opel plant in Thailand in May 2000
- Plants already exist in

Australia, Indonesia, and India

ACQUISITIONS AND ALLIANCES

- Owns 49% equity stake in Isuzu, a key source of trucks and diesel engines
- Owns 9.9% of Suzuki, a mini-car specialist
- Negotiating for significant equity stake in Fuji, a profitable niche-maker

- Negotiating to acquire auto unit of Daewoo, a debt-ridden Korean conglomerate

- In talks with Honda over engine technology

STRATEGIC PARTNERSHIP

- Cooperation on advanced environmental technology with Toyota, which was announced in 1999

Figure 19.1 GM's Asia-Pacific forays

Source: GM.

FACTORS AFFECTING THE COST OF CAPITAL

- 1. a. size of firm**
 - b. access to international capital markets**
 - c. international diversification**
 - d. taxes**
 - e. exchange rate risks**
 - f. country risks.**
- 

FACTORS AFFECTING THE COST OF CAPITAL

- 2. Factors a through d favor MNCs. Factors e and f appear to favor purely domestic companies, but this is not necessarily true because international operations are less correlated than purely domestic operations, thus making MNCs to be less risky than companies which operate strictly within the boundaries of any one country.**

THE WEIGHTED AVERAGE COST OF CAPITAL

Weighted average cost of capital = WACC is weighted average of component costs {1) Debt, 2) Preferred stock, and 3) Common stock (equity)}

WACC

$$k = \{S / (B+S)\} (k_e) + \{B / (B+S)\} (k_t) \quad (19.1)$$

The cost of equity

$$k_e = D_1 / P + g \quad (19.2)$$

Price Earning Ratio

$$k_e = 1 / (\text{P-E ratio}) \quad (19.4)$$

Cost of Debt

$$k_t = k_i (1 - t) \quad (19.5)$$

$$k_i = (k_f \times k_a) + k_p \quad (19.6)$$

THE WEIGHTED AVERAGE COST OF CAPITAL

Example 19.1

A US company borrows euros for 1 year at 7 percent. During the year, the euro appreciates 9 percent relative to the dollar. The US tax rate is 35 percent. What is the after-tax cost of this debt in US dollar terms?


The before-tax cost of this debt is computed as follows:

$$\begin{aligned}k_i &= (k_f \times k_a) + k_p \\&= (0.07 \times 1.09) + 0.09 \\&= 16.63\%\end{aligned}$$

The added 9.63 percent cost of this debt in terms of US dollars is reported as a foreign-exchange transaction loss. The nominal interest rate of 7 percent and the added cost of 9.63 percent are deductible for tax purposes. Thus, the after-tax cost of this debt would be:

$$\begin{aligned}k_t &= k_i(1 - t) \\&= 0.1663(1 - 0.35) \\&= 10.81\%\end{aligned}$$

OPTIMUM CAPITAL STRUCTURE

- 1. Optimum capital structure is the combination of debt, preferred stock, and common equity that will minimize the cost of capital (or yields the lowest cost of capital).**
- 

OPTIMUM CAPITAL STRUCTURE

2. **Weighted average cost of capital is the same as the cost of capital.**
 - a. **Cost of debt, cost of preferred stock, and cost of common equity are computed first and then they are weighted to determine the weighted average cost of capital.**
 - b. **Once we compute the cost of each component of the capital structure, we usually weigh them according to three weights--book value, market value, and target weights.**

OPTIMUM CAPITAL STRUCTURE

Book value is stated value in balance sheet,

Market value is current price of bonds and stock, and

Target weights is the proportions of additional funds which the company wants to raise

OPTIMUM CAPITAL STRUCTURE

3. Numerical Examples: Assumptions

- a. Before-tax interest = 9%; tax rate = 50%**
- b. Preferred dividend = \$2 a share; price per share = \$25**
- c. Common dividend in yr 1 = \$4; price = \$50;
growth rate = 4%**

After-tax interest = $K_t = K_i (1 - t) = 0.09 (1 - 0.50) = 0.045$

Cost of preferred stock = dividend/price = $2/25 = 0.08$

**Cost of common stock = dividend in year 1/price +
growth rate
= $4/50 + 0.04 = 0.12$**

OPTIMUM CAPITAL STRUCTURE

Capital	Net Proceed	Weight		After-Tax Cost	Weighted Cost
Debt	\$ 60 million	0.3	x	0.045	= 0.0135
Preferred	20	0.1	x	0.080	= 0.0080
Common	<u>120</u>	<u>0.6</u>	x	0.120	= <u>0.0720</u>
Total	\$200 million	1.0			0.0935

Normally, MNCs have a higher optimum capital structure than domestic firms without added risk because MNCs have lower cost and lower risk.

OPTIMUM CAPITAL STRUCTURE

Example 19.2

A company is planning to raise \$200 million for foreign investments. It wishes to hold the amount of capital constant and to change only the combination of financing sources. As given in table 19.1, there are three different financial structures under consideration by the company: A, B, and C.

Table 19.1 Three different financial plans

<i>Financial plan</i>	<i>After-tax cost</i>	<i>Weight</i>	<i>Weighted average cost</i>
Plan A:			
Debt	6.5%	20%	1.3%
Equity	12.0%	80%	<u>9.6%</u>
WACC			10.9%
Plan B:			
Debt	7.0%	40%	2.8%
Equity	12.5%	60%	<u>7.5%</u>
WACC			10.3%
Plan C:			
Debt	9.0%	60%	5.4%
Equity	15.0%	40%	<u>6.0%</u>
WACC			11.4%

OPTIMUM CAPITAL STRUCTURE

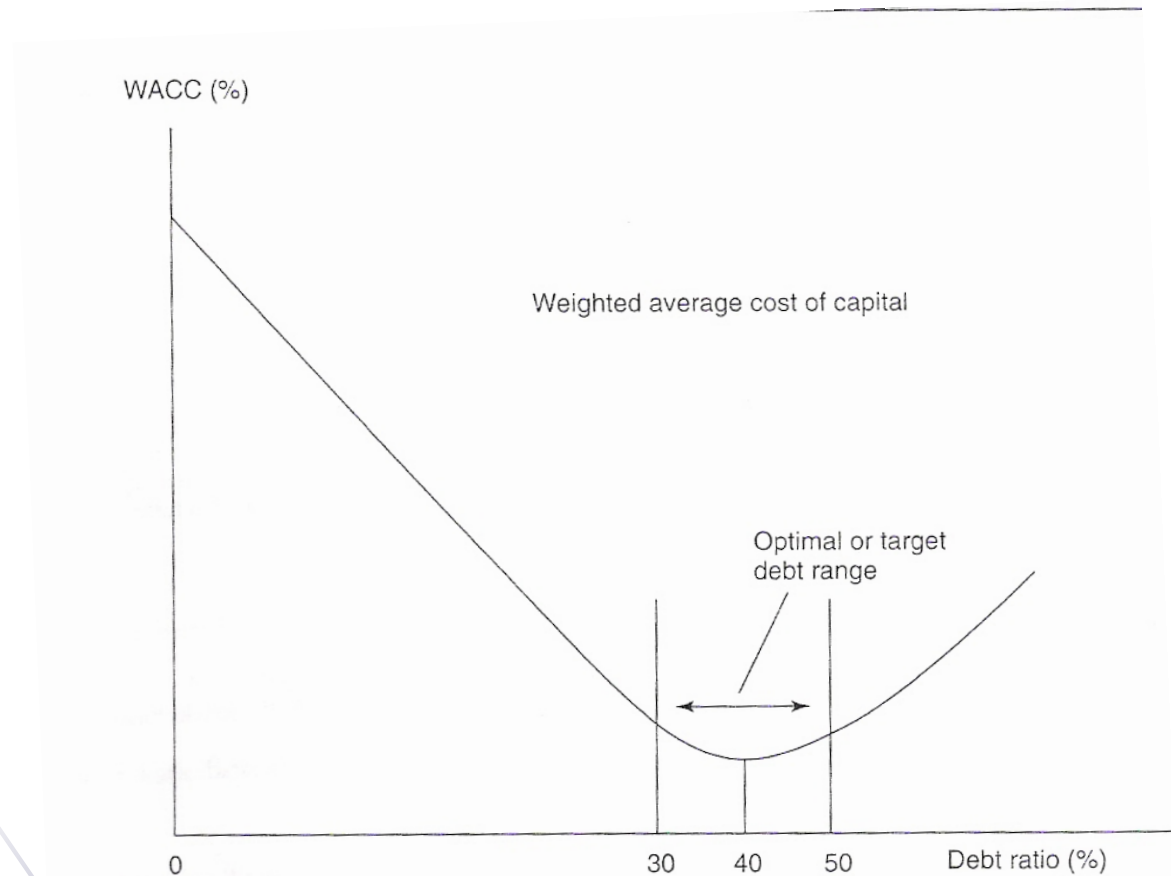


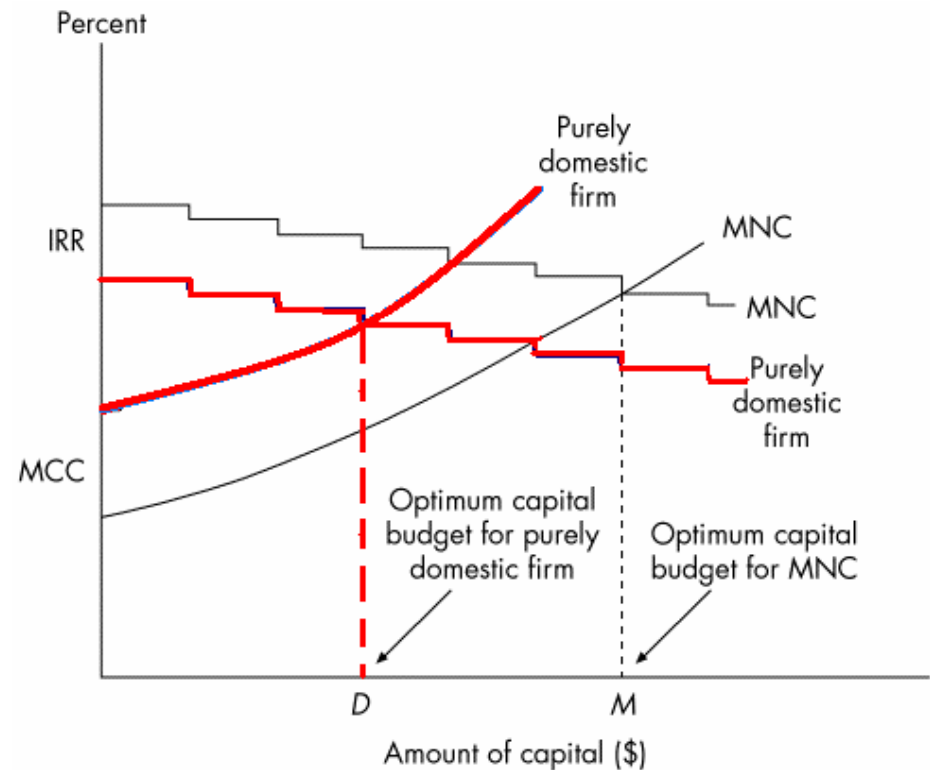
Figure 19.2 Debt ratio and the cost of capital

THE OPTIMUM CAPITAL BUDGET

- 1. Definition: the amount of investment that will maximize a firm's total profits.**
- 2. Optimum capital budget is obtained at the point where the marginal cost of capital equals the marginal rate of return.**
- 3. The following graph shows that MNCs have a higher optimum capital budget because of their lower cost of capital and more profitable investment opportunities.**

THE MARGINAL COST OF CAPITAL AND INVESTMENT DECISIONS

Figure 19.3
Domestic Firm versus
Multinational Firm



IRR is Internal Rate of Return

MCC (Marginal Costs of Capital) is the cost of additional money of new funds.

CULTURAL VALUES AND CAPITAL STRUCTURE

- 1. Researchers found that cultural values (i.e., political, legal, social, institutional, and tax environments) can be used to predict capital structure across countries.**
- 2. Researchers found low debt ratios in the Southeast Asia, Latin American, and Anglo-American groups of countries. They found high debt ratios in the Scandinavian, Mediterranean Europe, Indian Peninsula groups.**
- 3. Countries with the cultural dimensions of “conservatism” and “mastery” tend to have low corporate debt ratios.**

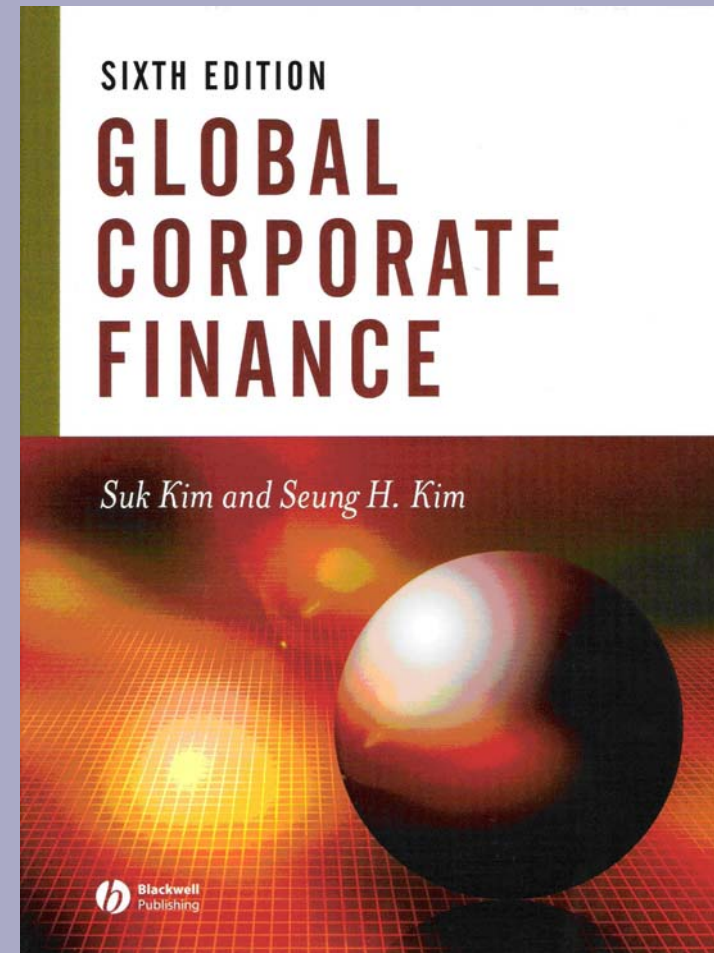
INTERNET EXERCISES



- The two major stock exchanges in the world are London Stock Exchange [<http://www.londonstockexchange.com>](http://www.londonstockexchange.com) and the New York Stock Exchange [<http://www.newyorkstockexchange.com>](http://www.newyorkstockexchange.com). Use these websites to find the current stock price of a major multinational company, such as Siemens. In addition, find out and compare their listing and disclosure agreements for foreign companies.
- Visit **Standard and Poor's site** [<http://www.standardandpoors.com>](http://www.standardandpoors.com) and Moody's [<http://www.moody.com>](http://www.moody.com) to answer the following questions: What factors do S&P and Moody's take into account in rating a country's debt. What are S&P's latest sovereign risk ratings for Belgium, Mexico, Canada, Indonesia, and South Korea?

CHAPTER 20

CORPORATE PERFORMANCE OF FOREIGN OPERATIONS



Chapter 20 Major Sections

- **Section 1, The Global Control System and Performance Evaluation**
 - **Section 2, International Taxation**
 - **Section 3, Transfer Pricing and Tax Planning**
- 

Opening Case 20:

Offshore Workers Increase IBM's Profits

Opening Case 20: Offshore Workers Increase IBM's Profits

Until a few years ago, multinational companies (MNCs) used to export only lowly waged jobs, but relentless pressure to cut costs is now compelling many MNCs to export highly paid positions. In one of the largest moves to "offshore" highly paid software jobs, *The Wall Street Journal* reported on December 14, 2003, that IBM would move 4,730 programmers from the United States to India, China, and elsewhere. Unlike the salaries for low-wage manufacturing jobs, IBM typically paid \$75,000 to \$100,000 or more a year for the US computer-services work. In contrast, hiring a software engineer with a bachelor's or even a master's degree from a top technology university in India may cost \$10,000 to \$20,000 annually.

Offshore workers account for more than half of IBM's 315,000 employees. IBM has been a multinational company since the 1920s, with operations in India for 50 years. Until recently, however, most of the software has been designed in the USA and exported to other countries. Apparently, IBM's effort to export highly paid jobs has recently enabled IBM to be profitable and to gain market share, despite the technology slump in the past few years. No wonder IBM intends to increase the number of its employees in India from 9,000 at the present time to 20,000 by the end of 2005.

The trend looms as one of the most serious long-term threats to US employment and labor. Countries with lower-salaried occupations are no longer siphoning only unskilled or blue-collar jobs from US workers; they now are scooping up skilled work from US companies on a large scale. By the end of 2004, one out of every 10 jobs within US-based computer companies will move to emerging markets, as will one of every 20 technology jobs in other corporations, according to tech-industry researcher

Gartner Inc. The International Data Corporation recently estimated that by 2007, 23 percent of all information technology jobs would be offshore, up from 5 percent in 2003.

Source: "IBM to Export Highly Paid Jobs to India, China," *The Wall Street Journal*, Dec. 15, 2003, pp. B1, B3.

GLOBAL CONTROL SYSTEM AND PERFORMANCE EVALUATION

- 1. Every control system establishes a standard of performance and compares actual performance with the standard.**
- 2. Inflation and exchange rate fluctuations affect company performance.**

GLOBAL CONTROL SYSTEM AND PERFORMANCE EVALUATION

3. Performance evaluation

a. Performance evaluation is a central feature of an effective management information system.

c. Performance criteria consist of financial criteria (i.e., return on investment and profits) and non- financial criteria (i.e., market share and sales growth).

GLOBAL CONTROL SYSTEM AND PERFORMANCE EVALUATION

4. Organizational structure

- a. The advantages of a centralized financial function includes close control of financial issues at headquarters, attention of top management to key issues, and an emphasis on parent company goals.**
- b. A decentralized financial function may reduce data collection costs, enjoy flexibility, and exploit many opportunities in foreign countries.**

GLOBAL CONTROL SYSTEM AND PERFORMANCE EVALUATION

c. The ultimate choice of a particular organization structure depends on several key decision variables:

- 1.transfer pricing and performance evaluation**
- 2.tax planning**
- 3.exchange exposure management**
- 4.acquisition of funds**
- 5.positioning of funds**

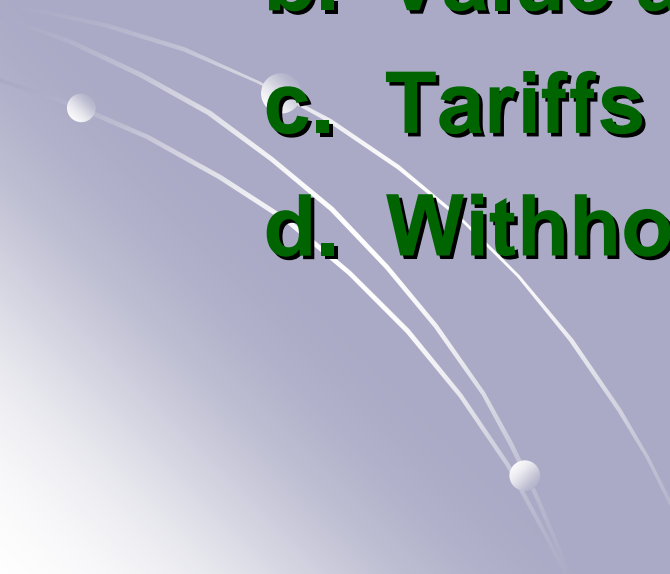
GLOBAL CONTROL SYSTEM AND PERFORMANCE EVALUATION

5. Foreign Corrupt Practices Act (FCPA) of 1977

- a. FCPA makes it a criminal offense for US companies to corruptly influence foreign officials or to make payments to any person when they have “reasons to know” that part of these payments will go to a foreign official.**
- b. FCPA consists of two separate sections, antibribery and accounting.**
- c. Penalties for violations include \$2 million for corporations and \$100,000 and/or five years in jail for individuals.**

INTERNATIONAL TAXATION

1. Types of taxes:

- a. Income and capital gains taxes**
 - b. Value added taxes**
 - c. Tariffs**
 - d. Withholding taxes**
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INTERNATIONAL TAXATION


2. Key issues in international taxation

- a. Tax morality**
 - b. Tax burdens**
 - c. Tax neutrality**
 - d. Tax treaties**
 - e. Tax credits**
- 

INTERNATIONAL TAXATION

- 3. Tax incentives for foreign investment**
 - a. Many countries offer tax incentives to attract foreign capital and know-how to their countries.**
 - b. The four types of tax incentive programs are:**
 - (1) government concessions**
 - (2) tax havens**
 - (3) foreign trade zones**
 - (4) other tax incentives**

TRANSFER PRICING AND TAX PLANNING

- 1. Transfer prices are prices of goods and services sold between parent companies and subsidiaries. MNCs can manipulate transfer prices to increase their overall profits.**
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TRANSFER PRICING AND TAX PLANNING

2. Transfer pricing objectives:

- a. Income tax minimization**
- b. Import duty minimization**
- c. Avoidance of financial problems**
- d. Adjustment for currency fluctuations**

INTERNET EXERCISES



- Use site <http://www.prctaxman.com.cn/asian.htm> > to study and compare the tax systems of the two Asian countries of your choice.
- Visit site <http://www.tpmba.com> > to list the objectives of the Transfer Pricing Management Benchmarking Association (TPMBA).