Chapter 1

Introduction

The years since World War II have seen an unprecedented increase in international trade and a parallel improvement in the economic development of most nations. Countries that were barely able to feed their population sixty years ago are now economic powerhouses where inhabitants enjoy a modern standard of living and where companies trade internationally. In many developing countries, political concerns have shifted from famine and abject poverty to pollution and urban grid-lock, once the concerns of developed countries only.

This increase in international trade was triggered by the realization that countries' economies benefit by trading with each other and that trade increases the overall well-being of the world's population. Figure 1-1[1] illustrates how much international trade has grown, and the respective shares of the twenty-five European countries, the United States, Japan, China, and of the remainder of the world in international trade.

Professionals in international logistics have been the main facilitators of that trade growth. They have been the managers responsible for the safe and timely deliveries of these millions of dollars worth of goods. They are responsible for:

- arranging transportation of these goods over thousands of miles
- understanding the trade-offs between the different modes of transportation available and making the correct decision

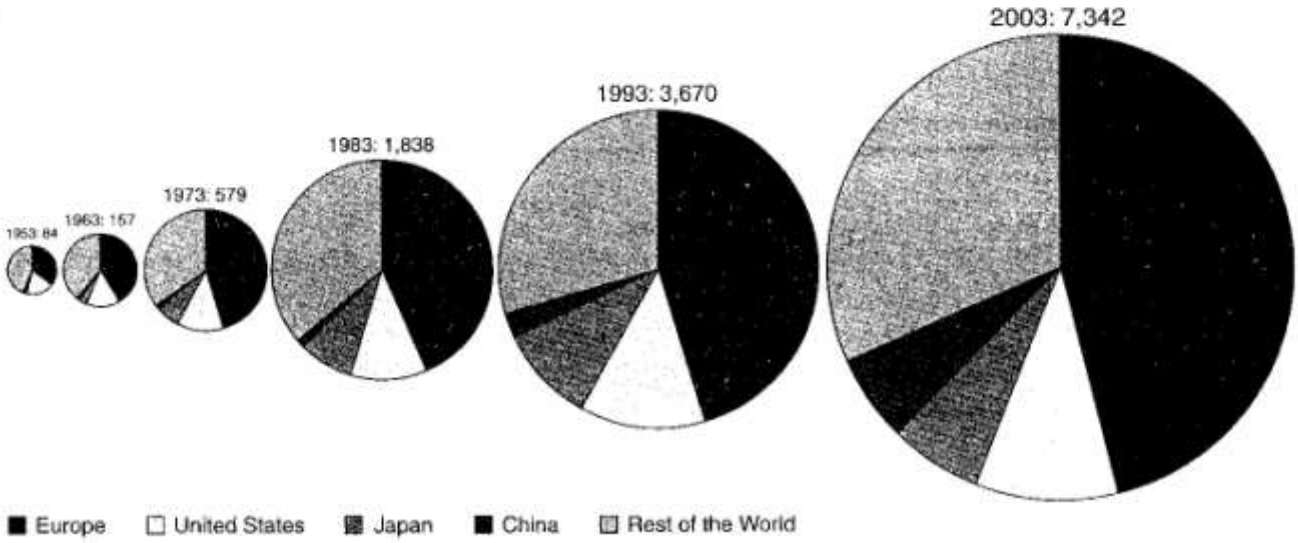


Figure 1-1 *Growth in World Trade, in Current U.S. $ Billions (1953–2003)*

- making sure that the goods are packaged properly for their journey
- insuring the goods appropriately while in transit, and understanding the risks they face
- minimizing the risks associated with international payments by selecting the right payment currency the right hedging strategy
- making sure that the goods are accompanied by the proper documents so that they can clear Custo in the country of destination
- defining properly who, between them and their foreign counterparts, is responsible for which aspe of the voyage and the documents
- determining which method is most suitable for payment between the exporter and the importer.

While all of these responsibilities of an international logistics manager will be covered in the remainc of this textbook, this chapter gives an overview of the extent of international trade, of the economic theor of international trade, and of some of the difficulties associated with conducting business in an internatio environment.

1.1 International Trade Growth

In constant U.S. dollars, international trade has grown 2,400 percent between 1950 and 2005[2] and by mc than 225 percent since 1980 (see Tables 1-1[3], 1-2[4], and 1-3[5]), an annual growth rate of 5 percent (t differences between exports and imports reflect the different ways in which the values of exports a imports are calculated).

Table 1-1 *World's Total International Trade in Merchandise*

International Merchandise Trade Volume in US $ billions

Year	*Exports*	*Imports*
1980	2028.53	2067.43
1985	1937.08	1995.84
1990	3388.15	3488.46
1995	4967.42	5078.02
2000	6245.47	6517.99
2004	6642.00	6985.00

Table 1-2 *World's Total International Trade in Services*

International Service Trade Volume in US $ billions

Year	*Exports*	*Imports*
1980	364.30	400.40
1985	381.80	399.30
1990	783.20	817.90
1995	1190.80	1200.10
2000	1457.30	1453.10
2004	2125.00	2095.00

that were more or less successful in designing their own common markets. The European Union expande in 1973 (Denmark, Ireland, and the United Kingdom), in 1981 (Greece), in 1986 (Spain and Portugal), i 1995 (Austria, Finland, and Sweden) and in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvi Lithuania, Malta, Poland, Slovakia, and Slovenia). It totals twenty-five countries as of August 2006.

The creation of the European Union triggered many other regional economic groups and other bilater or multilateral agreements: most notable are the Association of South East Asian Nations (ASEAN), Mercosu the Andean Community, and the North American Free Trade Agreement (NAFTA). A number of exampl are given in Table 1-4.

Table 1-4 *Economic Trade Blocs*

Economic Group	*Date of Creation*	*Current Membership (2006)*
European Union	1958	Austria, Belgium, Cyprus, Czech Republic, Denmark, Estoni Finland, France, Germany, Greece, Hungary, Ireland, Ital Latvia, Lithuania, Luxembourg, Malta, Netherlands, Polan Portugal, Slovakia, Slovenia, Spain, Sweden, United Kingdo
Central American Common Market	1960	Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua
ASEAN (Association of South East Asian Nations)	1967	Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam
Andean Community	1969	Bolivia, Colombia, Ecuador, Peru
Caricom (Caribbean Community)	1973	Antigua and Barbuda, Bahamas, Barbados, Belize, Dominic Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Sai Lucia, Saint Vincent and the Grenadines, Suriname, Trinid and Tobago
ECOWAS (Economic Community of Western African States)	1975	Benin, Burkina Faso, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senega Sierra Leone, Togo, Cape Verde
Gulf Cooperation Council	1981	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Ara Emirates
NAFTA (North American Free Trade Area)	1994	Canada, Mexico, United States
Economic and Monetary Community of Central Africa	1994	Cameroon, Central African Republic, Chad, Republic of the Congo, Equatorial Guinea, Gabon
East African Community	2001	Kenya, Tanzania, Uganda

1.2.4 The Creation of the Euro

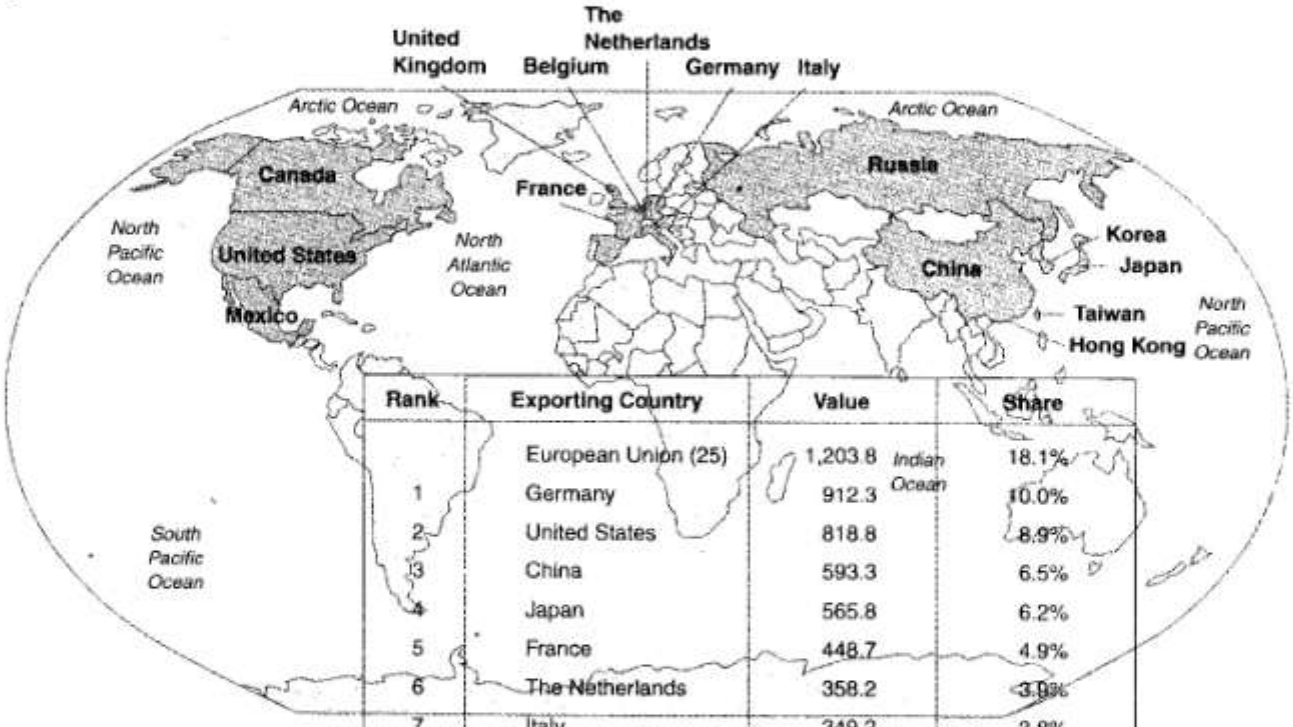
The **euro** is the European currency introduced in 1999 and put in circulation on January 1, 2002 in twelv of the twenty-five countries of the European Union (Austria, Belgium, Finland, France, Germany, Greec Italy, Ireland, Luxembourg, the Netherlands, Portugal, and Spain). It has also become the currency of number of smaller countries not part of the European Union, and the currency on which a number c developing countries have pegged their currencies. It was the first multinational effort to replace twelv strong legacy currencies, and it has become one of the strongest currencies of the world.

1.3 Largest Exporting and Importing Countries

Figures 1-2[8] and 1-3[9] show the largest exporting and importing countries for 2004, most of which have liberal trading policies or free-trade agreements with many of their partners.

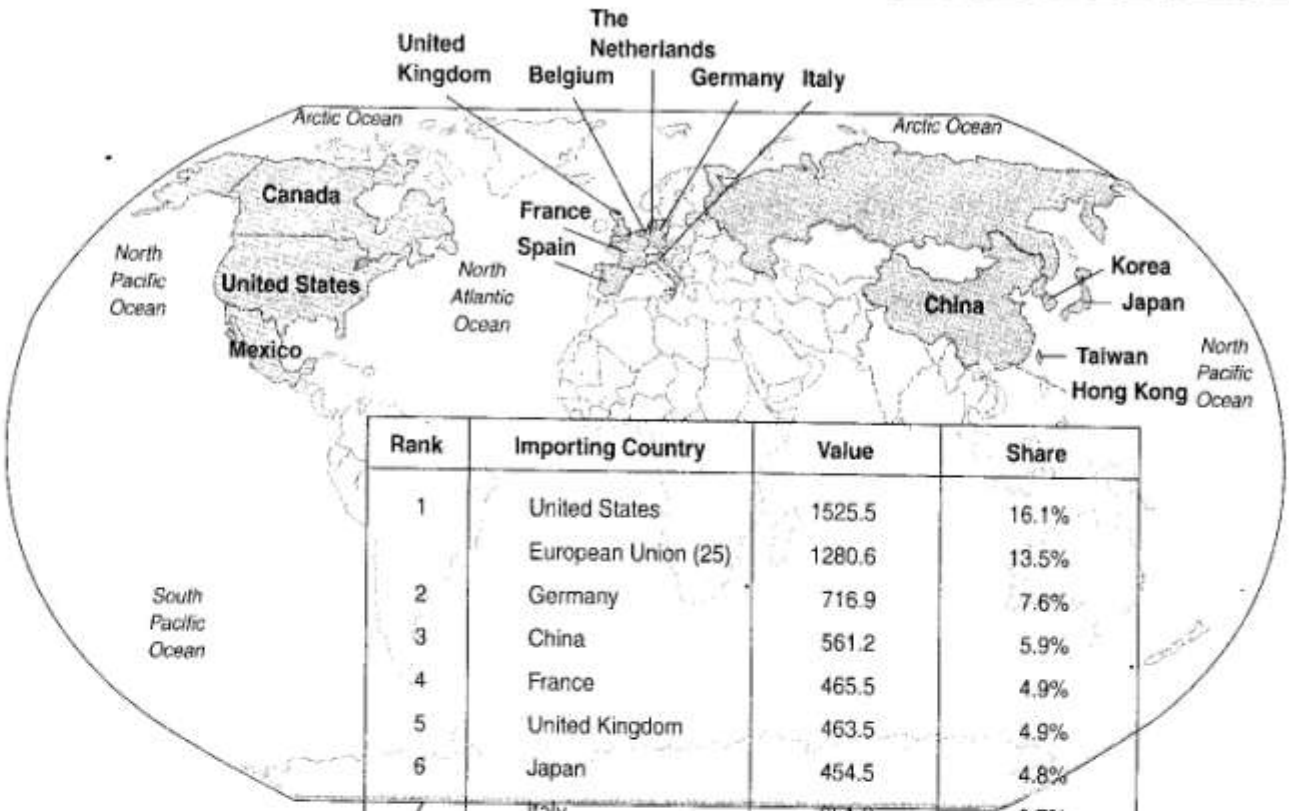
1.4 International Trade Drivers

There are many explanations for the enormous surge in international trade in the second half of the twentieth century. Companies found reasons to expand their sales in foreign countries, and others found reasons to purchase some of their raw materials and supplies from abroad. These international trade drivers can generally be divided into four main categories: cost, competitive, market, and technology.



Rank	Exporting Country	Value	Share
	European Union (25)	1,203.8	18.1%
1	Germany	912.3	10.0%
2	United States	818.8	8.9%
3	China	593.3	6.5%
4	Japan	565.8	6.2%
5	France	448.7	4.9%
6	The Netherlands	358.2	3.9%
7	Italy	349.2	3.8%
8	United Kingdom	346.9	3.8%
9	Canada	316.5	3.5%
10	Belgium	306.5	3.3%
11	Hong Kong	265.5	2.9%
12	Korea	253.8	2.8%
13	Mexico	189.1	2.1%
14	Russia	183.5	2.0%
15	Taiwan	182.4	2.0%
	Rest of the World	3,062.5	33.4%
	Total	9,153.0	100.0%

Figure 1-2 *World's Largest Exporters of Merchandise in 2004 in US $ billions (includes re-exports)*



Rank	Importing Country	Value	Share
1	United States	1525.5	16.1%
	European Union (25)	1280.6	13.5%
2	Germany	716.9	7.6%
3	China	561.2	5.9%
4	France	465.5	4.9%
5	United Kingdom	463.5	4.9%
6	Japan	454.5	4.8%
7	Italy	351.0	3.7%
8	The Netherlands	319.3	3.4%
9	Belgium	285.5	3.0%
10	Canada	279.8	2.9%
11	Hong Kong	272.9	2.9%
12	Spain	249.3	2.6%
13	Korea	224.5	2.4%
14	Mexico	206.4	2.2%
15	Taiwan	168.4	1.8%
	Rest of the World	2,950.8	31.1%
	Total	9,495.0	100.0%

Figure 1-3 *World's Largest Importers of Merchandise in 2004, in US $ billions (includes re-exports)*

1.4.1 Cost Drivers

For companies that require large capital investments in plants and machinery, there is a strong incentive to spread the costs of these fixed costs over a large number of units. For that reason, companies in the automobile industry have been among the first to seek customers outside of their domestic markets, and the companies that dominate that industry are present in just about every country: Ford Motor Company, Toyota Motors, and Volkswagen produce and sell automobiles in the most remote corners of the world. Those that do not have as strong of an international presence tend to be purchased by their competitors: Chrysler was purchased by Daimler-Benz in 1998 and Nissan was purchased by Renault in 1999. In late spring 2006, General Motors and Renault-Nissan were considering a similar arrangement.

Such cost drivers are not limited to plants and machinery. In industries where the developmental costs are very large and the costs of manufacturing are low, such as in the software industry, companies are keen to develop their international sales to dilute their developmental costs; such is the case for Microsoft, for example.

The other cost incentives to trade are found on the sourcing side; companies that assemble products from parts and subassemblies (called Original Equipment Manufacturers) seek suppliers that have the lowest possible prices. They will purchase their parts from companies located in countries that enjoy low labor costs or low energy costs. Such a purchasing pattern is called **outsourcing**. For example, Royal Appliance Manufacturing, a producer of vacuum cleaners under the brand "Dirt Devil," used to manufacture all of its products in the United States. As of 2006, it produces none in the United States, having outsourced all of its production.

This outsourcing phenomenon is also called the "Wal-Mart effect" in the United States. Manufacturers are asked to provide products at certain prices, called "price points," and there is an unrelenting pressure to make these price points lower every year, in response to consumer preferences. Companies then seek the lowest-cost suppliers, invariably abroad.

The pursuit of lowest manufacturing costs has also caused a substantial shift in other industries as well, notably those that manufacture products that are sold to consumers at retail: textiles, toys, housewares, and so on.

1.4.2 Competitive Drivers

In some cases, it is a competitive incentive that drives companies to expand overseas. For example, if one of their domestic competitors ventures into a particular country, they may feel compelled to follow suit, so as to not lose overall market share. Examples of such competitive behavior are more common in industrial goods than they are in consumer goods; however, this is the drive for the intense competition between the two largest retailers in the world. Carrefour of France and Wal-Mart of the United States compete in many different countries; as soon as one enters a foreign market, the other feels compelled to follow suit.

In other cases, companies expand their sales abroad in response to moves made by their competitors. When a new overseas competitor enters their home market, they "retaliate" by going overseas themselves and competing in that newcomer's home market. An example of such behavior would be The Gap entering the Italian market after Benetton started competing in the United States.

Competitive drivers also exist on the sourcing side. If a competitor starts offering an entry-level product targeted at a segment of price-conscious consumers, a company may retaliate by offering a similar product in order to maintain its market share. Because the competitor's entry-level product tends to be manufactured in low-cost producing countries, the company has little choice but to source overseas as well.

1.4.3 Market Drivers

As international tourism has exploded, consumers have become increasingly global in their interests, and their tastes and preferences have become almost uniform worldwide. This phenomenon was originally observed for products that reflected this consumer mobility, such as camera film and hotel rooms. Should a consumer want film in any country, there are essentially only three choices everywhere (Kodak, Agfa, and Fuji), but they are easy to purchase with identical sizes, sensitivities, and processing technologies. For hotel rooms, the number of alternative brands is much greater, but the uniformity of choices is similar.

Firms faced with consumers who wanted to find their products everywhere had to expand overseas. In the 1970s, McDonald's restaurants in Germany, Great Britain, and France were mostly patronized by foreigners looking for an experience with which they were familiar. Although foreigners still represent a

good portion of their sales today, McDonald's restaurants cater mostly to domestic consumers who ha come to appreciate the convenience of fast food. This phenomenon of standardization of tastes is ever where: television shows, clothing, books, music, food, sports, and so on.

Finally, as consumers become increasingly knowledgeable about the products they consume, they a more likely to purchase products with which they are unfamiliar. The wine industry is very typical in th aspect. French and Italian wines at one time dominated the higher segments of the market, but the way the were marketed demanded that the consumer learn a complex system of classification. When United Stat vintners "simplified" the industry by labeling the bottles with the name of the grape variety they used, expanded the market by making it less intimidating to buy wine. Consumers were less likely to mal mistakes and more likely to enjoy their wines. An unintended consequence of this simplification was substantial increase in the sales of wines from countries that traditionally had sold exclusively domestical (Chile, South Africa, and New Zealand, for example).

1.4.4 Technology Drivers

Another reason people are more familiar with products is that the diffusion of information has becom universal. Anyone with an Internet connection can quickly access *Wikipedia* or any other website th provides information. Consumers can conveniently purchase products everywhere, and it is just as conve nient to purchase from overseas as it is to purchase next door. Companies that have a presence on th Internet are enticing consumers everywhere to purchase their products. Expanding on this concept c worldwide competition between companies, Thomas Friedman writes about how the world has become fla and that individuals are now competing with each other on a worldwide scale for jobs: Easy communica tions and transfer of information have made one's location irrelevant.[10]

An easy example of the worldwide availability and sharing of information is the textbook that you ar reading; in order to find good illustrations of certain concepts, the authors looked for photographs on th Internet. There are a total of forty-one different photographers, from nineteen different countries, wh provided the illustrations for this book. In a similar fashion, companies can easily find suppliers for jus about any product on the Internet as well.

1.5 International Trade Theories

On a formal level, economists have developed several theories to explain why countries trade, and all hav empirical support. The following four theories are the ones most commonly used to explain bilateral trad between two countries.

1.5.1 Smith's Theory of Absolute Advantage

Adam Smith's Theory of Absolute Advantage was first defined in *The Wealth of Nations* in 1776: "If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it o them with some part of the produce of our own industry, employed in a way in which we have some advantage."[11]

The principle of **absolute advantage** is very easy to understand. Suppose companies, located in France can produce 20,000 liters of wine for each year of labor they employ, and, using the same labor, car produce two units of machinery. Suppose companies in Germany produce, with the same amount of labor 15,000 liters of wine and three units of machinery. It is obvious that the French enjoy an absolute advantage in making wine and that the Germans have an absolute advantage in making machinery, and therefore it is in the best interest of both parties to have the French companies produce wine and the German companies

make machinery. The theory does not concentrate on labor alone, but on the sum of all of the resources that are needed to make the product. A company (country) has an absolute advantage if it produces more goods than another, using the same amount of input; in other words, a company enjoys an absolute advantage if it is more efficient.

There are many examples of absolute advantage in international trade; countries "specialize" in specific crops or manufactures because they enjoy a worldwide absolute advantage over all other countries. For example, Kuwait produces crude oil more cheaply than any other country and imports most everything else its economy needs. Taiwan produces most of the world's supply of Random Access Memory (RAM) chips, and uses these proceeds to import other products and goods it cannot produce as efficiently, such as soybeans from Brazil.

1.5.2 Ricardo's Theory of Comparative Advantage

Although most frequently attributed to David Ricardo, the Theory of Comparative Advantage was first outlined by Robert Torrens in his *Essay on the External Corn Trade* in 1815.[12] It was Ricardo, though, who illustrated it with a numerical example in *On the Principles of Political Economy and Taxation* in 1817[13] and who is responsible for its great acceptance.

The principle of **comparative advantage** is not as simple as the Theory of Absolute Advantage. In this case, suppose that companies in Great Britain can manufacture, using one year of labor, five units of machinery and twenty-five tons of wheat. Companies in Brazil can manufacture, using the same input of labor, three units of machinery and twenty-one tons of wheat. In this case, Britain enjoys an absolute advantage in both machinery and wheat, and therefore the two countries would not trade, according to the Theory of Absolute Advantage.

However, Britain enjoys a comparative advantage in the production of machinery and Brazil enjoys a comparative advantage in the production of wheat. For Britain to manufacture twenty-five tons of wheat, it has to "give up" five units of machinery; in other words, the cost of a piece of machinery is five tons of wheat. For Brazil, in order to produce twenty-one tons of wheat, it has to give up three units of machinery. The cost to Brazil of producing one unit of machinery is therefore seven tons of wheat. Therefore, it makes sense for both countries to trade with one another; Britain can sell units of machinery in exchange for wheat from Brazil. Should the agreed-upon price be six tons of wheat for each piece of machinery, Britain is better off making machinery rather than growing wheat, and Brazil is better off growing wheat than making pieces of machinery.

The Theory of Comparative Advantage is present in most of the exchanges that companies make internationally. Most firms specialize in making certain products efficiently and these specializations give them a comparative advantage. At one point in its history, the Ford Motor Company built the River Rouge plant where, at one end, iron ore and coal were delivered, and at the other, finished automobiles rolled off the assembly line. Today, Ford has gained a comparative advantage in designing and assembling automobiles, and countless suppliers have made a business out of their own comparative advantage: Mittal Steel (India) in sheet metal, Alcan in aluminum products, TRW in airbags, and so on. Even though the Ford Motor Company is capable of producing these products, it chooses not to, and rather buys them from companies that can produce them relatively more efficiently than it can.

1.5.3 Heckscher-Ohlin Factor Endowment Theory

The Factor Endowment Theory was developed by Eli Heckscher and Bertil Ohlin in 1933[14] and builds on Ricardo's comparative advantage concept. Ricardo's explanation of **factor endowment** was based on

comparing the effectiveness of a country at using its labor to produce goods, and it assumed different leve of technology to account for the differences in the countries' ability to manufacture goods.

The Factor Endowment Theory extends that idea by assuming that, even when technology is identica some countries enjoy a comparative advantage over others because they are endowed with a greater abu dance of a particular factor of production. Economists consider that there are four factors of production– land, labor, capital, and entrepreneurship—and therefore countries with a greater abundance of one of thes factors enjoy an advantage over others.

This Factor Endowment Theory explains why certain countries specialize in the production of certai products. Argentina has abundant grazing land, and therefore enjoys a comparative advantage over othe countries in beef production. India has abundant educated labor and therefore enjoys a comparative advar tage in the staffing of call centers. The United States has an economic system in which entrepreneurship i handsomely rewarded, and it enjoys a comparative advantage in innovation and the development of intellec tual property.

1.5.4 International Product Life Cycle

The **International Product Life Cycle** Theory was developed by Raymond Vernon in 1966.[15] This theor explains the development of international trade in three stages.

In the first stage, a company creates a new product to satisfy a market need. This generally takes place i a developed country, as the critical number of customers necessary for a new product launch is often onl found in those countries. The product may also use proprietary technology that is only available in tha country as well. The firm manufactures the product in the country of innovation because it needs to be abl to monitor the manufacturing process carefully, because there are always unexpected problems in manufac turing a new product. As the product gains acceptance, the firm starts to export the product to othe developed countries, where similar markets start to emerge.

In the second stage, sales in other developed countries start to grow, and local competitors see that there are enough customers to justify production of products that imitate the original product. Alternative pro cesses or patents are developed. Sales grow further, and the product manufacturing process becomes muc better controlled and somewhat standardized, and many companies master the intricacies of making tha product. At the same time, the higher-income segments of developing countries' markets import the produc from developed countries, and a market in those countries start to emerge.

In the third stage, the manufacturing process has become much better known and almost routine. There are pressures to lower production costs. At the same time, the markets in developing countries start to reach such sizes that entrepreneurs in developing countries start to produce the products, frequently under contract from firms in the developed countries. Because the manufacturing costs of a mature product tend to be mostly labor-related, these firms start to export massively toward developed countries, slowly replacing all of the manufacturing capacity in those markets.

There is much empirical evidence that supports the International Product Life Cycle Theory. The first televisions were first manufactured and sold in Great Britain. They eventually were manufactured in other developed countries in Europe, North America, Japan, and Australia-New Zealand. As their popularity increased, all of the manufacturing facilities in those developed countries were eventually replaced by manufacturing facilities in developing countries in Southeast Asia. As of 2006, there are no manufacturing facilities in the United States for televisions at all.

1.5.5 Porter's Cluster Theory

Michael Porter's Cluster Theory, developed in 1990,[16] is not a theory of international trade, but an explanation

of the success of certain regions at developing a worldwide absolute (or comparative) advantage in a particular technology or product, despite having no particular advantage in any specific factor of production.

The **cluster** theory argues that it is critical to have a cluster of companies in the same industry, as well as their suppliers, concentrated in one geographic area. The companies feed on each other's know-how, and their competitiveness pushes them to innovate faster. In addition, when such a cluster exists, the best and brightest employees are eager to move to that location, as they know that they will easily find employment. As these employees move from firm to firm, they also take with them the know-how they acquired with their previous employers and therefore innovation "travels" from firm to firm. In some cases, these employees develop technologies and ideas that their employers may not want to pursue further and they themselves then start a company to exploit these ideas. Innovation flourishes within the area.

There are several areas of the world where such clusters can be found. The most commonly mentioned location is "Silicon Valley" in California, where most of the innovation in computer technology took place in the latter part of the twentieth century. Porter studied the cluster of Sassuolo in Italy, which specializes in ceramic tiles and produces more than 30 percent of the world's ceramic tiles, and where more than 70 percent of the production is exported.[17]

1.6 The International Business Environment

On a more practical level, the international logistics professional should have some understanding of the particularities of the international business environment. While it is impossible to replace experience in dealing with people from different countries, it is often useful to know the relevant issues. These few paragraphs are no substitute for classes in international marketing, intercultural communication, international finance, and international economics, but neither are these classes substitutes for experience in world travel and frequent contact with people from different countries and the extensive study of a foreign language.

The international environment is often first described by differences in culture, which is a term that encompasses the entire heritage of the people living in a particular country or geographical area: their language, their customs, their traditions, their morals, their beliefs, and their relationships with one another. If there is one aspect of international business about which it is difficult to generalize, it is culture. Not only are there differences between countries, but there are often differences between regions of a country (in the United States, consider New York and Hawaii), between industries within a country (the biotech industry and the auto industry), and often between companies within an industry (IBM and Apple Computers). Therefore, stating that the normal business attire in the United States is a pin-striped suit, a white shirt, and a conservative tie is correct, but only in a certain industry, in a certain geographic location, and in a particular company. Making similar generalizations about certain countries is just as incorrect.

The best strategy for a person interested in a career in international business would be to become familiar with the different techniques for intercultural communications. A number of excellent textbooks have been written in this field.[18] For a person interested in conducting business with a firm in the United States, there are books dealing with the American business culture.[19] For managers interested in a specific country, Brigham Young University publishes the "Culturegrams," which are an excellent synopsis (a few pages) of a given country's culture.[20] Despite all of these tools, culture and cultural misunderstandings are probably the greatest sources of frustration for managers involved in international business. Several tools are presented in Chapter 16 to prevent some of these problems, but the best strategy is to be flexible and sensitive to other people's reactions.

Table 1-3 *World's Total International Trade in Merchandise and Services*

Total International Trade Volume in US $ billions

Year	*Exports*	*Imports*
1980	2392.83	2467.83
1985	2318.88	2395.74
1990	4171.35	4306.36
1995	6158.22	6378.12
2000	7702.77	7971.09
2004	8767.00	9080.00

This increase in international trade was triggered by a massive liberalization of international commerce following World War II and the creation of a number of international organizations designed to facilitate international commerce, as well as a significant decrease in transportation costs and transit times. During that period, a much greater consumer acceptance of things "foreign," from food to automobiles, allowed an increasing number of companies to expand their sales beyond their domestic borders.

1.2 International Trade Milestones

The development of international trade has been fostered over the years by several critical milestones, the ratification of several key international treaties, and the establishment of international organizations designed to facilitate and support international trade activities.

1.2.1 The Bretton-Woods Conference

In the last year of World War II, world leaders of the Allied nations met in July1944 inthe resort town of Bretton-Woods, a conference that led to the creation of several international institutions, two of which were specifically designed to facilitate world trade:

- The International Monetary Fund (IMF) on December 27, 1945,[6] which established an international system of payment and introduced stable currency exchange rates.
- The General Agreement on Tariffs and Trade (GATT), which through multiple negotiation periods (in Geneva [1948], Annecy [1949], Torquay [1951], Geneva [1956], the Dillon Round [1960–61], the Kennedy Round [1964–67], the Tokyo Round [1973–79], and the Uruguay Round [1986–94]), led to a decrease of duty rate from an average of over 40 percent in 1947 to an average slightly above 4 percent in 2006.

1.2.2 The World Trade Organization

The World Trade Organization (WTO) was officially created on January 1, 1995.[7] It "replaced" the GATT and is the organization that is essentially in charge of "enforcing" free trade. Since 2001, the WTO has been working on the Doha Round of multilateral negotiations, whose goal is to improve trade in agricultural commodities, which is impeded by a large number of nontariff barriers, and replete with agricultural subsidies in developed countries.

1.2.3 The Treaty of Rome

The Treaty of Rome in 1957 among Belgium, France, Germany, Italy, Luxembourg, and the Netherlands led to the eventual creation of the European Union and was emulated by countless other groups of countries