

Introduction

chapter

1

LEARNING GOALS:

After reading this chapter, you should be able to:

- Understand the meaning and importance of globalization
- Understand the relationship between international trade and the nation's standard of living
- Describe the subject matter (trade and monetary aspects) of international economics
- Identify the major international economic problems and challenges facing the United States and the world today

1.1 The Globalization of the World Economy

The world is rapidly globalizing and this is providing many opportunities and major challenges to the nations and people of the world. We begin our study of international economics with a brief overview of the globalization revolution taking place in the world today.

1.1A We Live in a Global Economy

We live in a globalized world. We can connect instantly with any corner of the world by cellular phone, e-mail, instant messaging, and teleconferencing, and we can travel anywhere incredibly fast. Tastes are converging (i.e., more and more people all over the world generally like the same things) and many goods we consume are either made abroad or have many imported parts and components. Many of the services we use are increasingly provided by foreigners as, for example, when a radiography taken in a New York hospital is evaluated across the world in Bangalore (India) and when H & R Block sends our tax returns abroad for processing. Even small companies that until a few decades ago faced only local or regional competition now must compete with firms from across the globe.

Although not as free as the flow of international trade in goods and services, millions of workers at all skill levels have migrated around the world, and thousands of jobs have moved from advanced countries to such emerging markets as India and China.

Finance has also globalized: We can invest in companies anywhere in the world and purchase financial instruments (stocks and bonds) from any company

from almost anywhere in the world. Many pension funds are in fact invested abroad and a financial crisis in one financial center quickly spreads across the world at the click of a mouse. We can exchange dollars for euros and most other currencies easily and quickly, but the rates at which we exchange our currency often change frequently and drastically. In short, tastes, production, competition, labor markets, and financial markets are rapidly globalizing, and this affects all of us deeply as consumers, workers, investors, and voters—yes, we live in a global economy (see Case Studies 1-1 and 1-2).

■ CASE STUDY 1-1 The Dell PCs, iPhones, and iPads Sold in the United States Are Anything but American!

Headquartered in Round Rock, Texas, Dell coordinates a global production network in 34 countries in the Americas, Europe, and Asia. For most of the PCs sold in the United States, Dell performs only the final assembly domestically and relies on outside suppliers and contract manufacturers for components, peripherals, printed circuit board (PCB) assemblies, and subassemblies (box builds). The reason is that most parts and components are cheaper to produce in other parts of the world and are thus imported (see Table 1.1). Neither high-value components nor very low-value components (such as power supplies or keyboards) have to be made close to Dell's assembly plants. Only some midlevel components (such as motherboards and other PCB assemblies), which are too expensive to ship by air to meet volatility in demand, as well as to risk holding in inventory, are produced locally, but even that is not always the case.

In 2009, more than 90 percent of all the parts and components going into HP's PCs were made outside the United States. The components of an Apple iPhone are almost entirely Asian: the screen is from Japan, the flash memory is from Korea—and it was assembled in China! Apple contributed the design and software, and it integrated the innovations of others. The iPad introduced by Apple is made from parts and components by Samsung and L.G Display (Korean); Toshiba (Japanese); Broadcom (U.S.); Catcher Technologies, Wintek, Simplo Technology, and Novateck Microelectronics (Taiwan), and STMicroelectronics (Italy and France) and assembled in China. Less than 30 percent of the parts and components of the brand new Boeing 787 Dreamliner jet that went into service in 2011 are made in the United States.

■ **TABLE 1.1.** Locations and Companies That Supply Specific Parts and Components for Dell's PCs

Part/Component	Location	Company
Monitors	Europe and Asia	Phillips, Nokia, Samsung, Sony, Acer
PCBs	Asia, Scotland, and Eastern Europe	SCI, Celestica
Drives	Asia, mainly Singapore	Seagate, Maxtor, Western Digital
Printers	Europe (Barcelona)	Acer
Box builds	Asia and Eastern Europe	Hon Hai/Foxteq
Chassis	Asia and Ireland	Hon Hai/Foxteq

Sources: J. Dedrick and K. L. Kraemer, "Dell Computer: Organization of a Global Production Network" and "Globalization of the Personal Computer Industry: Trends and Implications," *Working Paper*, Irvine, CA: Center for Research on Information Technology and Organizations (CRITO), University of California, Irvine, 2002; "The Laptop Trail," *The Wall Street Journal*, June 9, 2005, p. 31; "Rising in the East," *The Economist*, January 3, 2009, p. 47; <http://www.ipadforums.net/apple-ipad-news/514-rumor-alert-ipad-release-date-likely-friday-march-26th-2.html>; and "Dreamliner Production Gets Closer Monitoring," *The Wall Street Journal*, October 7, 2009, p. B1.

■ CASE STUDY 1-2 What Is an “American” Car?

Strange as it may seem, the question of what is an American car may be difficult to answer. Should a Honda Accord produced in Ohio be considered American? What about a Chrysler minivan produced in Canada (especially when Chrysler was owned by Germany’s Daimler-Chrysler)? Is a Kentucky Toyota or Mazda that uses nearly 40 percent of imported Japanese parts American? Clearly, it is becoming more and more difficult to define what is American, and opinions differ widely.

For some, any vehicle assembled in North America (the United States, Canada, and Mexico) should be considered American because these vehicles use U.S.-made parts. But the United Auto Workers union views cars built in Canada and Mexico as taking away U.S. jobs. Some regard automobiles produced by Japanese-owned plants in the United States as American because they provide jobs for Americans. Others regard production by these Japanese “transplants” as foreign, because (1) the jobs they create were taken from the U.S. automakers, (2) they use nearly 40 percent imported Japanese parts, and (3) they remit profits to Japan. What if Japanese transplants increased their use of American parts to 75 percent or 90 percent? Was the Ford Probe, built for Ford by Mazda in Mazda’s Michigan plant, American?

It is difficult to decide exactly what is an American car—even after the American

Automobile Labeling Act of 1992, which requires all automobiles sold in the United States to indicate what percentage of the car’s parts are domestic or foreign. One could even ask if this question is relevant at all in a world growing more and more interdependent and globalized. In order to be competitive, automakers must purchase parts and components wherever they are cheaper and better made, and they must sell automobiles throughout the world to achieve economies of mass production. Ford designs its automobiles in six nations (the United States, the United Kingdom, Germany, Italy, Japan, and Australia), has production facilities in 30 locations (3 in North America, 3 in South America, 7 in Asia, and 17 in Europe), and employs more workers outside than in the United States. In fact, the automotive and many other industries are rapidly moving toward a handful of truly global, independent companies.

Sources: “Honda’s Nationality Proves Troublesome for Free-Trade Pact,” *The New York Times*, October 9, 1992, p. 1; “What Is a U.S. Car? Read the Label,” *The New York Times*, September 18, 1994, Section 3, p. 6; “Made in America? Not Exactly: Transplants Use Japanese Car Parts,” *The Wall Street Journal*, September 1, 1995, p. A3B; “And Then There Were Five,” *U.S. News & World Report*, March 4, 2000, p. 46; “What Is an American Car?” *The Wall Street Journal*, January 26, 2009, p. A5; and “One Ford for the Whole World,” *Businessweek*, May 15, 2009, pp. 58–59.

1.1B The Globalization Challenge

Globalization is a revolution which in terms of scope and significance is comparable to the Industrial Revolution, but whereas the Industrial Revolution took place over a century, today’s global revolution is taking place under our very eyes in a decade or two. Globalization, of course, is not new. Roman coins circulated throughout the empire two thousand years ago; Chinese currency was used in China even earlier. More recently, the world has experienced three periods of rapid globalization, 1870–1914, 1945–1980, and 1980 to the present.

Globalization in 1870–1914 resulted from the Industrial Revolution in Europe and the opening up of new, resource-rich, but sparsely populated lands in North America (the United States and Canada), South America (Argentina, Chile, and Uruguay), Australia and New

Zealand, and South Africa. These lands received millions of immigrants and vast amounts of foreign investments, principally from England, to open up new lands to food and raw material production. These so-called regions of recent settlement grew rapidly during this period by exporting increasing amounts of food and raw materials to Europe in exchange for manufactured goods. This period of modern globalization came to an end with the breakout of World War I in 1914.

The second period of rapid globalization started with the end of World War II in 1945 and extended to about 1980. It was characterized by the rapid increase of international trade as a result of the dismantling of the heavy trade protection that had been put in place during the Great Depression that started in the United States in 1929 and during World War II. What is different about the present globalization revolution (since 1980) is its speed, depth, and immediacy resulting from the tremendous improvements in telecommunications and transportation, massive international capital flows resulting from elimination of most restrictions on their flow across national boundaries, as well as by the participation of most countries of the world. This is what makes today's globalization that much more pervasive and dramatic than earlier periods of globalization. The recent (2008–2009) global financial and economic crisis, the deepest of the postwar period, only slowed down the march of globalization temporarily.

As all revolutions, however, today's globalization brings many benefits and advantages but also has some disadvantages or harmful side effects. In fact, there is a great deal of disagreement as to the extent and type of advantages and disadvantages. Does getting cheaper and/or better products and service from abroad justify sacrificing domestic jobs? Why are some people in some countries very rich and obese while others dismally poor and starving?

Although labor migration generally leads to the more efficient utilization of labor, it also leads to job losses and lower wages for less-skilled labor in advanced nations and harms (i.e., it is a "brain drain" for) the nations of emigration. Similarly, financial globalization and unrestricted capital flows lead to the more efficient use of capital throughout the world, as well as provide opportunities for higher returns and risk diversification for individuals and corporations. But they also seem to lead to periodic international financial crises, such as the ones that started in Asia in 1997 and affected most other developing countries, and the subprime housing mortgage crisis that started in the United States in 2007 and affected the entire world in 2008 and 2009. Finally, are we running out of resources such as petroleum, other minerals, water? Is the world headed for a climate disaster?

These disadvantages and negative aspects of globalization have given rise to a rethinking of the age-old belief in free trade and to a strong [antiglobalization movement](#), which blames globalization for many human and environmental problems throughout the world, and for sacrificing human and environmental well-being to the corporate profits of multinationals. Globalization is being blamed for world poverty and child labor in poor countries, job losses and lower wages in rich countries, as well as environmental pollution and climate change throughout the world. Although there is some truth in these accusations, an in-depth economic analysis will show that often the primary cause of many of the serious problems facing the world today lies elsewhere (see Case Study 1-3).

Globalization has many social, political, legal, and ethical aspects, and so economists need to work closely with other social and physical scientists, as well as with the entire

■ CASE STUDY 1-3 Is India's Globalization Harming the United States?

The outsourcing of low-skilled service industry jobs (such as answering customer inquiries) from advanced countries to low-wage countries, such as India, reduces costs and prices in advanced countries, and it does not create much concern. In recent years, however, many high-skill and high-pay jobs in such diverse fields as computing and aircraft engineering, investment banking, and pharmaceutical research have been transferred to India and other emerging markets, creating great concern in advanced nations, especially the United States. Table 1.2 shows the outsourcing of high-tech services and jobs to India by some U.S. multinationals in 2008.

Companies such as IBM, Citigroup, and Morgan Stanley point out that outsourcing high-skill

and high-wage jobs to India (and other emerging markets, especially China) where they can be done more cheaply keeps them internationally competitive, leads to lower prices for their products and services to American consumers, and is necessary for them to take advantage of fast-growing emerging markets. Transferring abroad many high-skill and high-paying jobs, as well as the crucial technologies on which they are based, however, inevitably causes great concern in the United States, not only for the loss of good U.S. jobs but also for the ability of the United States to remain the world's technological leader.

■ **TABLE 1.2.** Globalizing India

U.S. Company	Global Work Force	Work Force in India	Percentage in India	Outsourced Services
Accenture	146,000	27,000	18.5	By the end of 2008, the company had had more workers in India than in the United States
IBM	356,000	52,000	14.6	Independent development of software solutions for Indian and global clients
Citigroup	327,000	22,000	6.7	Analysis of U.S. stocks and evaluation of credit-worthiness of U.S. companies

Sources: "India's Edge Goes Beyond Outsourcing," *The New York Times*, April 4, 2008, p. C1; "IBM to Cut U.S. Jobs, Expand in India," *The Wall Street Journal*, March 26, 2009, p. B1; and "Outsourced Forever," *Forbes*, September 26, 2011, pp. 38–39.

civil society, to give globalization a more human face (i.e., have all nations and people share its benefits). Globalization is important because it increases efficiency in the production of material things; it is inevitable because we cannot hide or run away from it. But we would like globalization also to be sustainable and humanizing and, ultimately, "fair." This requires a profound change in world governance. Such is the challenge facing humanity today and in this decade.

All these topics and many more are either directly or indirectly the subject matter of international economics that are covered in this text.

1.2 International Trade and the Nation's Standard of Living

The United States, stretching across a continent and rich in a variety of human and natural resources, can produce, relatively efficiently, most of the products it needs. Contrast this with the situation of small industrial countries, such as Switzerland or Austria, that have a few very specialized resources, and produce and export a much smaller range of products, and import all the rest. Even large industrial countries such as Japan, Germany, France, England, Italy, and Canada rely crucially on international trade. For developing nations, exports provide employment opportunities and earnings to pay for the many products that they cannot now produce at home and for the advanced technology that they need.

A rough measure of the economic relationship among nations, or their *interdependence*, is given by the ratio of their imports and exports of goods and services to their gross domestic product (GDP). The GDP refers to the total value of all goods and services produced in the nation in a year. Figure 1.1 shows that imports and exports as a percentage of GDP are much larger for smaller industrial and developing countries than they are for the United States. Thus, international trade is even more important to most other nations than it is to the United States.

Even though the United States relies to a relatively small extent on international trade, a great deal of its high standard of living depends on it. First of all, there are many commodities—coffee, bananas, cocoa, tea, scotch, cognac—that the country does not produce at all. In addition, the United States has no deposits of such minerals as tin, tungsten, and chromium, which are important to certain industrial processes, and it has only

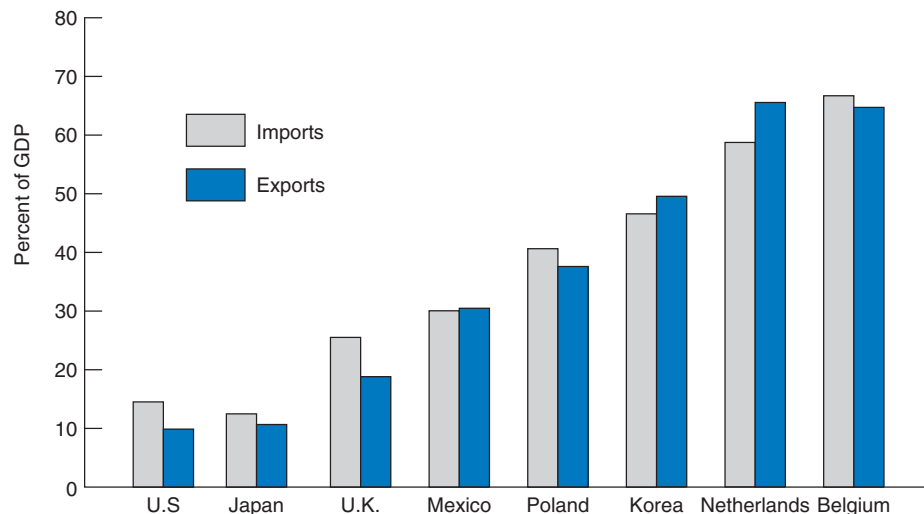


FIGURE 1.1. Imports and Exports as a Percentage of GDP in Various Countries in 2011.

International trade (imports and exports) is even more important to most other smaller industrial and developing countries than it is to the United States.

Source: International Monetary Fund, *International Financial Statistics*, Washington, D.C.: IMF, July 2012.

dwindling reserves of petroleum, copper, and many other minerals. Much more important *quantitatively* for the nation's standard of living are the many products that could be produced domestically but only at a higher cost than abroad. We will see later that these account for most of the *benefits or gains from trade*.

Nevertheless, the United States could probably withdraw from world trade and still survive without too drastic a decline in its standard of living. The same cannot be said of such nations as Japan, Germany, England, or Italy—not to speak of Switzerland or Austria. Even Russia and China, which for political and military reasons have valued self-sufficiency very highly in the past, have now come to acknowledge their need to import high-technology products, foreign capital, and even grains, soybeans, and other agricultural commodities, and at the same time be able to export large quantities of their goods and services in order to pay for all the imports they need.

In general, the economic interdependence among nations has been increasing over the years, as measured by the more rapid growth of world trade than world production (see Figure 1.2). This has certainly been the case for the United States during the past four decades (see Case Study 1-4). The only exception to world trade rising, and rising faster than world GDP, were in 2001 and 2009. In 2001, world GDP rose slightly but world trade declined slightly (the first such decline since 1982–1983). To a large extent this was due to the economic recession in the United States in 2001 and the fear of terrorism following the September 11, 2001, attack on the World Trade Center in New York City and the Pentagon in Washington, D.C. International trade also declined in 2009 as a result of the deepest recession of the postwar period triggered by the world financial crisis. In all likelihood, trade will continue to serve as a strong stimulus to world growth in the future.

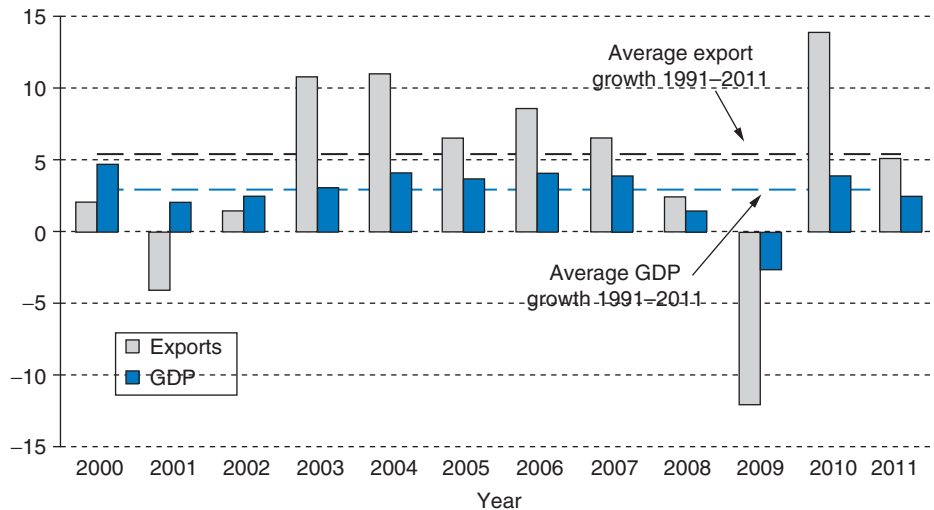


FIGURE 1.2. Growth of World Trade and GDP, 2000–2011 (annual percentage changes). International trade grew much faster than world production from 2000 to 2011, except in 2001 and 2009. Source: World Trade Organization, *World Trade Report*, Geneva: WTO, 2012, p. 18.

■ CASE STUDY 1-4 Rising Importance of International Trade to the United States

After remaining at between 4 and 5 percent during most of the 1960s, imports and exports of goods and services as percentages of gross domestic product (GDP) rose sharply in the United States during the 1970s. Figure 1.3 shows that imports as a percentage of U.S. GDP increased from about 5 percent during the late 1960s to more than 10 percent of GDP in 1980 and to a high of nearly 18 percent in 2008 before falling below 14 percent in 2009 as a result of the U.S. recession. Exports increased from about 5 percent in the late 1960s to about 10 percent in 1980 and to a high of nearly 13 percent of GDP in 2008, but it fell to 9.9 percent of

GDP in 2011 because of recession or slow growth abroad. The figure shows that international trade has become more important to the United States (i.e., the United States has become more interdependent with the world economy) during the past four and one-half decades. Figure 1.3 also shows that the share of imports in GDP exceeded the share of exports since 1976 and the excess widened sharply during the first half of the 1980s and then again from 1996 to 2006. This led to huge U.S. trade deficits and persistent demands for protection of domestic markets and jobs against foreign competition by American industry and labor.

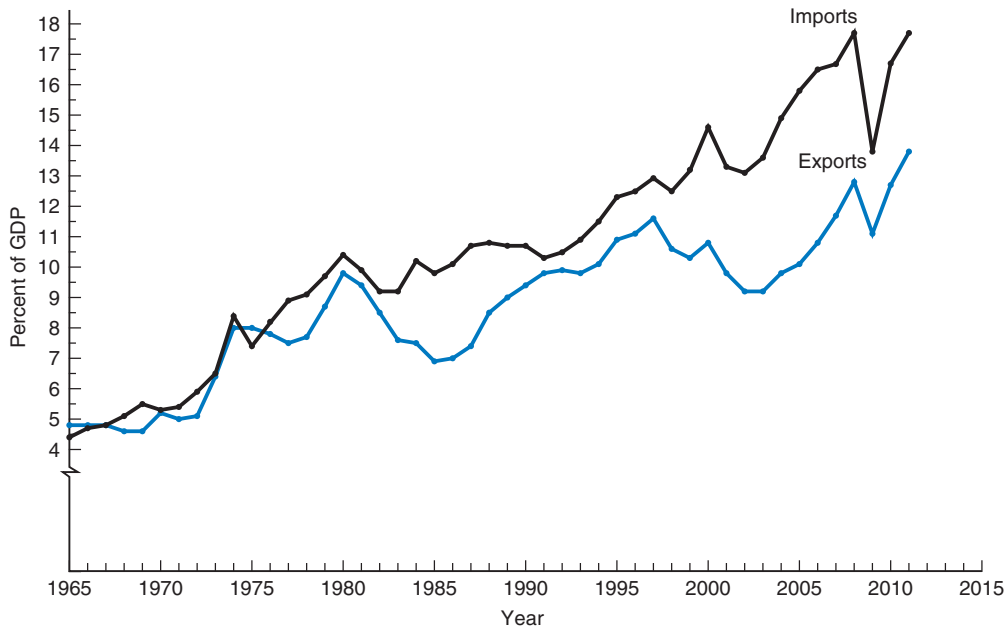


FIGURE 1.3. Imports and Exports as a Percentage of U.S. GDP, 1965–2011.

The share of imports and exports in U.S. GDP increased sharply since the early 1970s. Thus, international trade has become increasingly important to the United States. During the first half of the 1980s, and again from 1996 to 2006, U.S. imports greatly exceeded U.S. exports, resulting in huge trade deficits for the United States.

Source: International Monetary Fund, *International Financial Statistics Yearbook* (Washington, D.C., various issues).

But there are many other crucial ways in which nations are interdependent, so that economic events and policies in one nation significantly affect other nations (and vice versa). For example, if the United States stimulates its economy, part of the increased demand for goods and services by its citizens spills into imports, which stimulate the economies of other nations that export those commodities. On the other hand, an increase in interest rates in the United States is likely to attract funds (capital) from abroad and increase the international value of the dollar. This stimulates U.S. imports and discourages U.S. exports, thus dampening economic activity in the United States and stimulating it abroad.

Finally, trade negotiations that reduce trade barriers across nations may lead to an increase in the exports of high-technology goods (such as computers) and thus to an increase in employment and wages in those industries in the United States, but also to an increase in imports of shoes and textiles, thereby reducing employment and wages in those sectors. Thus, we see how closely linked, or interdependent, nations are in today's world and how government policies aimed at solving purely domestic problems can have significant international repercussions.

1.3 The International Flow of Goods, Services, Labor, and Capital

Interdependence in the world economy is reflected in the flow of goods, services, labor, and capital across national boundaries.

1.3A The International Flow of Goods and Services: The Gravity Model

We have seen that international trade is of growing importance to the nation's well-being. But which are the major U.S. trade partners and why? In general, we would expect nations to trade more with larger nations (i.e., with nations with larger GDPs) than with smaller ones, with nations that are geographically closer than with nations that are more distant (for which transportation costs would be greater), with nations with more open economic systems than with nations with less open systems, and with nations with similar language and cultural background than with nations that are more different.

In its simplest form, the **gravity model** postulates that (other things equal), the bilateral trade between two countries is proportional, or at least positively related, to the product of the two countries' GDPs and to be smaller the greater the distance between the two countries (just like in Newton's law of gravity in physics). That is, the larger (and the more equal in size) and the closer the two countries are, the larger the volume of trade between them is expected to be.

According to the gravity model, we expect the United States to trade more with its neighbors Canada and Mexico than with similar but more distant nations, and more with large economies such as China, Japan, and Germany than with smaller ones. This is exactly what Table 1.3 shows. That is, the largest trade partners of the United States are generally closer and/or larger. (The Appendix to this chapter provides detailed data on the commodity and geographic concentration of international trade, as well as on the world's leading exporters and importers of goods and services; Case Study 13-1 then gives the major commodity exports and imports of the United States.)