Box 3-1 — continued

the United States, boosting real GDP by 4.4 percent. In today's dollars, GDP would increase by about $580 billion, roughly $1,940 per person. The large income gains that are estimated to come from liberalizing services trade reflect the advantage the United States has in producing services relative to other countries, the large share of the U.S. economy represented by services, and the world's relatively high barriers to services trade.

Four factors have contributed to the strong U.S. export performance. First, our trading partners' income growth has boosted their demand for U.S. products. Second, increased productive capacity in the United States has expanded our ability to serve foreign demand. Third, changes in exchange rates since 2002 made American goods cheaper on world markets. Finally, the longer-run decline in transportation costs, lower tariffs, and the removal of other barriers to trade have made it easier for U.S. products to penetrate export markets. Together, these factors not only affect exports, but they also influence the current account, a broader measure of trade and a part of the balance of payments between the United States and the rest of the world (see Box 3-2).

Foreign Income Growth

Perhaps the most important factor driving the recent increase in exports has been the growth of income of our main trading partners. As income increases around the world, demand for U.S. products increases as well. This relationship is depicted in Chart 3-3, which shows the real growth of exports and foreign GDP. There are several aspects of this graph that are noteworthy.

First, foreign GDP growth and U.S. export growth tend to rise or fall together. As other countries become richer, they demand more goods and services, including U.S. goods and services. Strong worldwide expansions, such as those in the late 1980s and the mid-1990s, led to strong U.S. export growth. Weakness in the world economy, such as that during 1998 and 2001, led to weak export growth or even declines. Recent years have experienced a period of strong worldwide growth led by fast-growing emerging markets such as China, relatively strong growth in Europe, and faster GDP growth in Latin America; this growth has been a key driver of rapid U.S. export growth.

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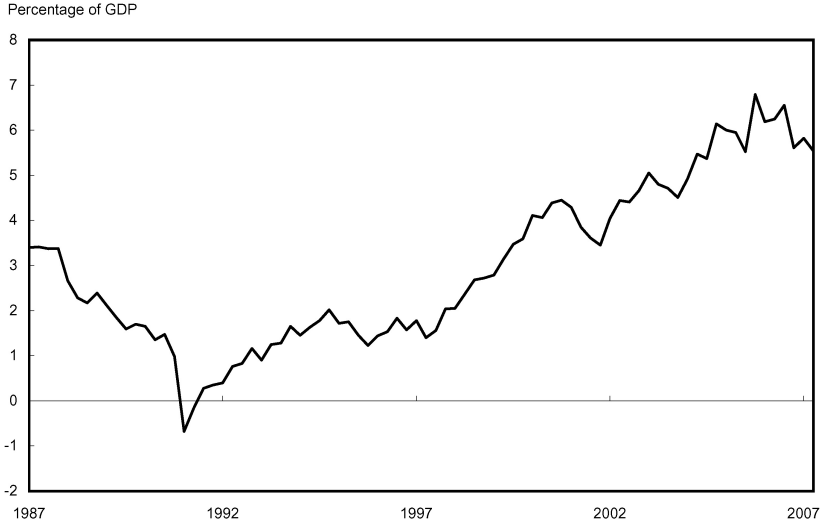
Box 3-2: The Current Account Deficit

The *current account* measures the value of international trade in goods and services, investment income flows, and unilateral international transfers. Trade in goods and services is the single largest component of the current account. In 2006, the trade deficit was $759 billion and the current account deficit was $811 billion; that is, the trade deficit accounted for 93 percent of the current account deficit. Exports have grown much faster than imports, and this helped narrow the current account deficit in absolute terms and relative to GDP, as shown in the chart. In the fourth quarter of 2005, the current account deficit totaled $863 billion at an annualized rate, or 6.8 percent of GDP. In the third quarter of 2007, the current account deficit fell to $714 billion at an annualized rate, or 5.1 percent of GDP, as export growth greatly exceeded import growth.

Current Account Deficit As a Share of Gross Domestic Product
After increasing for most of the last 15 years, the current account deficit as a share of GDP has decreased over the last 2 years.



Source: Department of Commerce (Bureau of Economic Analysis).

Chart 3-3 **Real Growth in U.S. Exports and Foreign Gross Domestic Product**
Increases in foreign income are typically associated with export growth.

Sources: Department of Commerce (Bureau of Economic Analysis) and Macroeconomic Advisers.

Second, export growth is much more volatile than foreign GDP growth. Exports grew much faster than the world economy during the expansions of the 1980s, the mid-1990s, and the past few years. But export growth fell below worldwide economic growth during the worldwide slowdowns in 1998 and 2001. This type of volatility occurs because changes and expected changes in foreign output typically lead to large changes in investment in those economies; investment is strongly related to demand for capital goods—plants and equipment used in production—and consumer durables—goods used over time, such as refrigerators—which U.S. production helps satisfy. Most U.S. exports of goods are capital goods, consumer durable goods, and inputs that are used to produce them, and are therefore very sensitive to changes in foreign GDP. Capital goods and consumer durables account for 61 percent of nonenergy U.S. merchandise exports. Industrial supplies, which are often used in the production of capital goods and durable goods, account for 14 percent of nonenergy U.S. exports. For example, in 2006, the United States exported almost $85 billion worth of automobiles, auto parts, tractors, and trucks; $46 billion worth of electronic circuits; more than $43 billion worth of airplanes and aircraft; and nearly $21 billion worth of parts and components for office machinery.

Growth in Domestic Production

A second factor that has contributed to the growth in exports is the expansion of the U.S. economy. As the U.S. economy's productive capacity expands, its ability to produce goods and services for export likely expands as well. A key factor in increasing U.S. production, and therefore U.S. capacity to export, has been the growth of labor productivity. Gross output produced per hour of work increased in 88 percent of manufacturing industries from 2004 to 2005, the most recent years for which data are available. Over a longer horizon, output per worker increased in all but 1 of about 85 manufacturing industries. In 2005, 60 percent of manufacturing industries had labor productivity increases of at least 4 percent. The gains were especially high in computer and computer-peripherals manufacturing, apparel and knitting mills, and agricultural chemicals. The growth in output in these sectors has helped to satisfy world demand.

Exchange Rates

From January 2002 through December 2007, the dollar has depreciated 23 percent in nominal terms against a weighted average of currencies. In other words, the cost of buying other currencies has increased by about 23 percent on average. In real terms—controlling for international differences in inflation rates—the average real exchange rate has depreciated by nearly 22 percent; that is, individuals abroad can exchange goods produced in their country and receive about 22 percent more U.S. goods now compared to 2002. Changes in the terms of trade associated with recent exchange rate trends made American goods cheaper relative to those of some other countries.

Trade Costs and Barriers

Falling transportation costs, improved communications, and the removal of tariff and nontariff barriers have also supported the growth in trade. Both exports and imports have benefited.

Over the last half century, there have been dramatic declines in shipping costs as well as striking improvements in the quality of shipping among developed economies. The nature of trade for some emerging economies may now be changing to take advantage of these improvements. Studies indicate that improvements in infrastructure may lower the costs of trade a great deal. The ratio of the value of exports upon arrival to the value when shipped gives a rough measure of the costs associated with freight and insuring the good while in transport. For some export markets there have been noticeable declines in transportation costs, as measured by this ratio. For example, from 2003 to 2006, the average cost of shipping goods to Africa and China decreased by 14 and 12 percentage points, respectively. From 2003 to 2006,

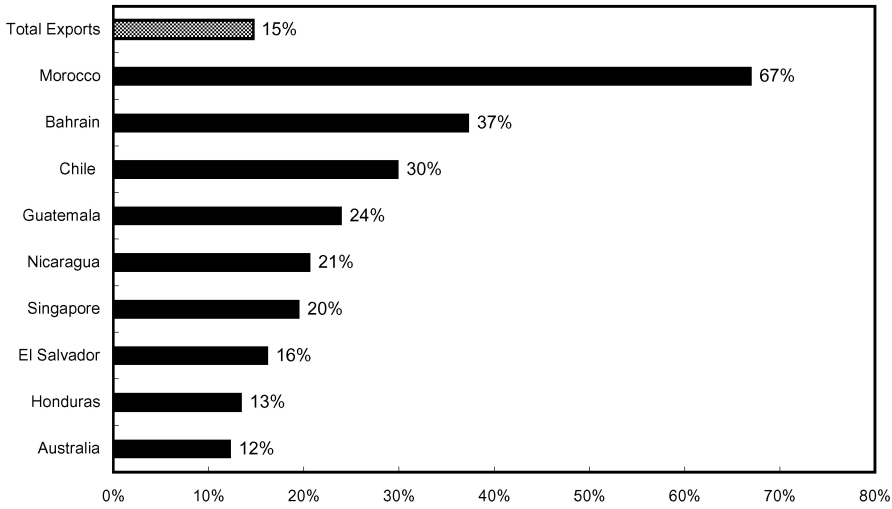
for five of the eight regions identified in Chart 3-2, the cost of importing goods from the United States has fallen.

In addition to falling transportation costs, communication costs have declined, facilitating the growth in trade. One example is the growth of e-commerce. One study finds that, on average, the growth in the number of Internet hosts in an economy helped increase that economy's annual export growth from 1997 to 1999. As more of the world's population has gained access to the Internet, the market for U.S. goods and services has expanded and exports have likely increased as well.

Trade liberalization has also been important. Some of the growth of trade can be attributed to successful multilateral reductions in trade barriers through the World Trade Organization (WTO) and its predecessor, the General Agreement on Tariffs and Trade. The United States continues to work with other nations to advance the Doha Development Agenda negotiations, as well as to liberalize trade regionally and bilaterally. When this Administration took office, the United States had free-trade agreements (FTAs) implemented with only 3 countries, Canada, Mexico, and Israel; a fourth, with Jordan, had been signed but was not yet approved by Congress. Through 2007, the Administration has implemented FTAs or completed negotiations with 17 countries. Congress has approved agreements with 14 of these countries, most recently with Peru, while those with Colombia, Panama, and South Korea are awaiting Congressional approval.

Do FTAs contribute to export growth? Over the last 20 years, there has been a virtual explosion in the number of FTAs. Worldwide, there are now more than 200 regional FTAs in force. For many of these FTAs, the removal of tariffs and other trade barriers occurs over 5-year phases and often takes nearly 15 years to have full effect. Recent research shows that in the short run, the average FTA has increased trade between bilateral trading partners by 32 percent after 5 years, 73 percent after 10 years, and 114 percent after 15 years. After 15 years, the average FTA appears to have had no additional effect on trade growth. Therefore, the long-run effect of the average FTA has been roughly a doubling of trade between the two trading partners. In the case of recent U.S. FTAs, nearly all of the tariff cuts and nontariff liberalization occur early in the agreement, and later stages have more modest phase-outs. As a result, we may expect to see much of the increases in trade coming in the first 5 to 10 years of the agreement. As is evident from Chart 3-4, U.S. export growth to recent FTA partners in 2006 from 2005 has, for most countries, been higher than total U.S. export growth. Overall, the FTA partners have been major contributors to the growth in exports. In 2006, the United States exported goods to more than 200 economies. Exports to our 13 trading partners in the FTAs that had been signed and implemented through that year accounted for one-third of the growth of U.S. goods exports between 2005 and 2006.

Chart 3-4 **Growth of U.S. Goods Exports to Free Trade Agreement Partners, 2005–2006**
The recent free-trade agreements have provided U.S. businesses access to many new markets. As a result, U.S. nominal exports to these new markets are growing rapidly.



Note: This country group is restricted to U.S. trading partners with free-trade agreements that were both signed and entered into force from 2001 to 2006.
Source: Department of Commerce (Census Bureau).

Exports and Foreign Direct Investment

Many different types of companies engage in international trade. In one form of international trade, U.S. companies invest abroad and operate facilities in foreign countries. Cross-border investment to control a business (with control generally defined as having a 10 percent or greater ownership stake) is known as foreign direct investment (FDI), and FDI facilitates exports.

The United States is strongly committed to open investment (Box 3-3), and the world is more aware of the benefits of open investment today than it was in the past. For much of the early post–World War II era, many countries placed heavy restrictions on investment in both directions. Policies on inbound investment restricted the sectors in which foreign businesses could invest or the level of ownership they could take. Some policies barred acquisitions, and others made it difficult for investors to send profits or capital home.

Spurred in part by the rapid growth of the internationally oriented East Asian economies, by European integration, and by the stagnation of many closed economies, countries have reduced barriers to foreign investment and most now actively seek it. Today, liberalization continues in both developing and advanced economies. In 1992, the United Nations Conference on Trade and Development recorded 77 national regulatory changes around the

Box 3-3: Open Investment and the United States

As a matter of policy, the United States has a longstanding commitment to welcoming foreign direct investment and securing fair, equitable, and nondiscriminatory treatment for U.S. investors abroad. On May 10, 2007, the President issued a Statement on Open Economies reaffirming this commitment, and noted that the Administration is committed to ensuring that the United States continues to be the most attractive place in the world to invest.

This policy stems from recognition of the benefits of open investment. These benefits include the introduction of new technologies, processes, and management techniques into the economy; increased competition that lowers prices for consumers and leads to quality improvements; and the creation of greater international trade and knowledge linkages. Foreign affiliates in the United States tend to have more need for higher-skilled labor than many other firms, paying at least 25 percent greater compensation than private firms that are domestically owned, thus creating an incentive for U.S. workers to keep building skills and to compete for these well-paying jobs. U.S. investment abroad can also strengthen the U.S. economy. It can increase exports, thereby improving U.S. job opportunities. Increased exports provide incentives for firms to hire more people into the more productive, higher-wage industries. Increased trade thereby results in higher average wages for U.S. workers. In addition, there is evidence that firms that invest abroad also increase their domestic investment, and that one activity helps the other.

world that were favorable to FDI. It recorded a peak of 234 such changes in both 2002 and 2004, and a still-robust level of 147 in 2006. But the move toward openness has experienced setbacks as well. In 2006, countries made 37 regulatory changes that were unfavorable to FDI (20 percent of all changes), the highest rate since 1992. Some of these unfavorable changes included restrictions in certain sectors or efforts to nationalize certain sectors, especially natural resource industries.

Another issue facing open investment is that in some limited circumstances, the acquisition of a domestic company by a foreign investor could pose risks to the national security of the host country. For example, such a problem could arise if an adversary of the host country wanted to buy a domestic military contractor. The United States addresses this issue through the interagency Committee on Foreign Investment in the United States (CFIUS), which considers only genuine national security concerns, not economic or other interests. The Foreign Investment and National Security Act of 2007 (FINSA) clarified and improved the CFIUS process and the Act was passed by Congress with strong bipartisan support, reaffirming Congressional trust

in CFIUS's role in protecting national security in a manner consistent with the U.S. commitment to open investment. In passing FINSA, Congress stated that the new law is meant "to ensure national security while promoting foreign investment and the creation and maintenance of jobs."

Multinationals and Trade

The United States is both the single leading recipient and leading source of foreign direct investment in the world. In 2006, total cumulative FDI in the United States was almost $1.8 trillion, 15 percent of the world total. That same year, total cumulative FDI from U.S. companies to the rest of the world was almost $2.4 trillion, or 19 percent of the world total.

To understand FDI and how it creates channels for trade, understanding some terms is useful. Firms that carry out direct investment abroad and own companies or branches in more than one country are known as *multinational companies,* or *multinationals.* The company that is the headquarters of the firm does the investing and is known as the *parent.* The parent company is located in the *home country.* The foreign company that the parent owns is known as the *foreign affiliate* and is located in the *host country.* The parent might own as much as 100 percent or as little as 10 percent of the foreign affiliate and still be considered a direct investor. Affiliates that are more than half-owned by direct investors are known as *majority-owned foreign affiliates.* Ownership chains can be complicated: Sometimes a U.S. parent is owned by foreign investors, and is therefore also a foreign affiliate.

The vast majority of U.S. trade is carried out by companies that are part of multinationals. In 2005, the export of goods by U.S. parent companies, by U.S. affiliates of foreign companies, and by unaffiliated companies in the United States to U.S.-owned affiliates abroad amounted to $621 billion, or 69 percent of all U.S. goods exports. Most of these exports—$416 billion—came from U.S. parent companies not otherwise owned by foreign companies, but foreign-owned affiliates in the United States also exported a great deal—$169 billion. A large portion of this multinational-related trade took place *within* multinationals, that is, between parent companies and affiliates. Goods exports from U.S. parent companies to their foreign affiliates and U.S.-based affiliates to their foreign parent companies totaled $267 billion, 30 percent of all U.S. goods exports.

Multinationals are not only goods exporters. They also play an increasing role in the export of services. Between 1997 and 2006, services exports from U.S. parent companies to their foreign affiliates and from U.S. affiliates to their foreign parent companies grew from $51.8 billion to $103.3 billion, or from 22 percent to 26 percent of all U.S. private services exports. Together, they accounted for almost one-third of all the growth in U.S. private services exports. Of the $103.3 billion, U.S. parent companies sold $73.1 billion

worth of services to their foreign affiliates, 79 percent more in nominal terms than in 1997. Services exports from U.S.-based affiliates of foreign companies to their foreign parent companies grew even faster. In 2006, these affiliates sold $30.2 billion worth of services to their foreign parent companies, a 175-percent nominal increase from 1997.

The Benefits of Trade and Expanding Export Markets

Promoting free trade is a top priority of this Administration. Trade liberalization, whether it involves multilateral agreements that lower barriers among all the world's countries, or bilateral agreements that permit deeper integration such as by harmonizing laws or institutions, provides a host of economic benefits: lower prices and expanded consumer choice, a larger market for U.S. exports, increased domestic productivity, and closer ties to people and nations around the world. Economists often emphasize the gains from trade from importing goods and services that are relatively more difficult for the domestic economy to produce, but there are also benefits to be gained through exporting.

International trade involves transactions between individuals or firms that reside in different countries. As in any voluntary transaction, the participants in international trade expect to benefit because they value what they receive in the exchange more than what they give. The gains in each individual transaction then aggregate into gains for the economy as a whole. The United States benefits from exporting because it allows us to trade goods that are abundant in national production for goods that are relatively more costly to produce domestically.

Another benefit of policies that encourage free trade and expand markets is that trade encourages specialization and the division of labor. Specialization provides near-term benefits because economies have different endowments of resources and their workforces possess different skills and talents. For example, the United States has a relatively large population of highly skilled workers, but very little tropical land. As a result, the United States exports business and financial services to the world and imports coffee from a variety of tropical countries, such as Colombia.

Specialization raises the living standard for the average citizen because it allows people to consume more goods and services. Exporting allows an economy to use its relatively abundant resources to produce goods and services and export them to economies where the resources required to produce such goods and services are relatively scarce. Because goods are shipped to markets where they are relatively scarce, the United States receives a higher price for

these goods than if they were produced and sold only in domestic markets. This increased income allows U.S. citizens to buy more goods and services, including goods and services that are produced in other countries. One study finds that the two major trade agreements of the 1990s—the Uruguay Round of the World Trade Organization and the North American Free Trade Agreement—contribute between $1,300 and $2,000 in annual benefits for the average American family of four.

Some specialization takes the form of interindustry specialization—one country specializes in some goods; another country in others. However, a large proportion of trade involves similar goods within an industry. Such intra-industry trade can occur for several reasons. One of the primary reasons for intra-industry trade is that each producer tailors a product to a specific target audience. In doing so, their output is consumed by a fraction of the total market for that product. Therefore, intra-industry trade typically leads to more varieties; that is, different countries produce goods within the same industry, but they may produce a product with different features or a different style. One recent study that investigates the growth of new varieties from all types of products imported by the United States from 1972 to 2001 finds that new varieties have increased threefold. The welfare gain from this increase in varieties is roughly equal to $900 per person.

The innovation, introduction of new varieties, and expanded competition that come from broadening trade also promote world economic development. As resources are shifted from unproductive sectors to more productive sectors as a result of innovation in an economy such as that of the United States, it becomes more difficult for the country to produce all the goods, new and old. The new goods typically use skilled labor more intensively than the older goods. The production of these new goods in the United States increases the demand for skilled workers and the wages paid to those workers. The increase in the wage paid to skilled workers benefits the United States, not only because it raises the incomes of our workers, but also because it increases the incentives for individuals to acquire more skills. Human capital accumulation is one of the engines that drives economic growth. When the United States begins devoting more resources to producing the new, more profitable goods, it will likely discontinue producing older, less skill-intensive goods, and these goods will need to be produced abroad. Although these older goods were less skill-intensive in the United States, they typically are more skill-intensive in the economy that begins to produce them. This creates greater rewards for skilled workers, which encourages human capital accumulation and promotes growth as well for both trading partners. These benefits are not necessarily equally distributed, as will be discussed in the next section.

Specialization, the division of labor, innovation of products for world markets, and the upgrading of skill that is brought about by trade all create gains in the economy. Are these gains from trade measurable? In fact, research

does show that across countries, relative to their income, countries that trade more tend to have higher per capita incomes than those that trade less, and that more trade is a cause of this higher income.

Trade and Labor Markets

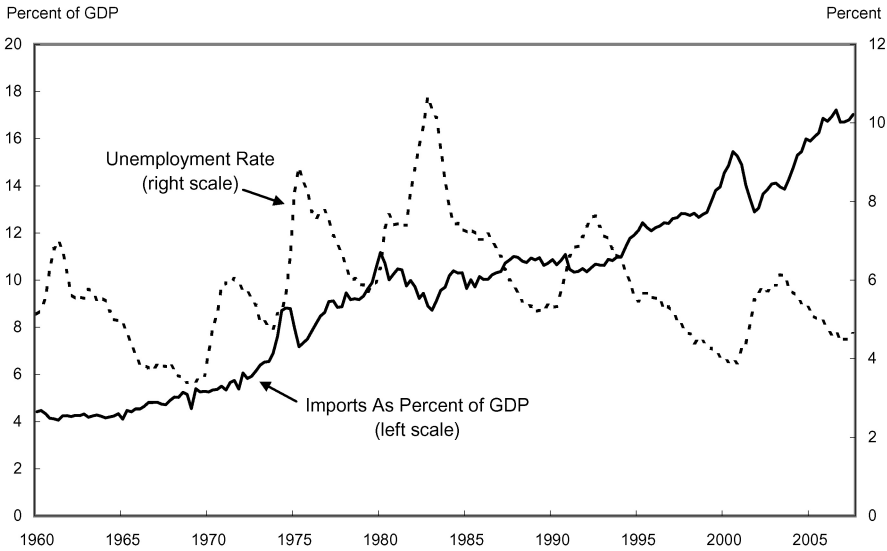
The United States has long been committed to free trade and continues to pursue policies and agreements to promote trade liberalization. The consensus among economists is that, in the aggregate, the economic benefits of trade liberalization greatly outweigh its costs. At an individual level, however, those benefits and costs may not be evenly distributed. Some people may particularly benefit—for example, workers who get higher-paying jobs when exporters expand their production—while others bear costs—for example, workers who are displaced because of import competition.

It is important to consider the distributional implications of trade liberalization and, in particular, the impact on workers who may be displaced by import competition. However, it is also important to emphasize that trade liberalization has little, if any, effect on overall employment. In particular, increases in imports are not associated with a higher unemployment rate or lower workforce participation. Chart 3-5 shows the ratio of imports to GDP since 1960, along with the unemployment rate. If trade were a major factor affecting the economy's ability to maintain full employment, these measures would tend to move in tandem. The increase in imports as a percentage of GDP over the past several decades has not led to any noticeable trend in the unemployment rate. Over the past decade, the U.S. economy has experienced historically low unemployment, while imports have grown considerably. Indeed, in recent years, imports as a share of GDP have increased, but this has not resulted in any significant trend in the overall unemployment rate.

Along with trade and trade policies, other factors, such as changes in consumer tastes, domestic competition, and productivity increases, contribute to the churning of the labor market. These other factors can have effects that are similar to those of import competition on the labor market, often on similar individuals and sectors. For example, the United States has seen a vast increase in domestic manufacturing output while the manufacturing workforce has been declining. Import competition in manufacturing industries has played less of a role in the decline of manufacturing employment than has the rapid increase in labor productivity.

The cost for workers in import-competing industries is that increased imports—due to changes in the world economy or policy efforts to liberalize trade—may cause some to lose their jobs or receive lower wages. Among manufacturing industries, the U.S. industries that appear to be most affected

Chart 3-5 **Imports and the Unemployment Rate, 1960–2006**
Over the long run, there is little connection between increased imports of goods and services and the strength of the labor market.



Sources: Department of Commerce (Bureau of Economic Analysis) and Deparment of Labor (Bureau of Labor Statistics).

by import competition are electrical machinery, apparel, motor vehicles, and non-electrical machinery. Similar to workers displaced from manufacturing more generally, workers displaced from import-competing manufacturing industries tend to have lower earnings upon reemployment. These adverse effects are more a function of such factors as education, skills, and age, rather than something intrinsic to the increase of imports due to trade liberalization. In this way, such trade-induced effects are similar to labor market effects induced by technological change.

While trade liberalization may lead to job loss in some import-competing sectors, it also creates jobs in the industries that produce the goods and services the United States exports and in industries that use imported inputs, and the benefits to the economy resulting from trade liberalization are far greater than the costs. Increased trade does, however, adversely affect some workers. The President recognizes that these workers need help with retraining and reemployment and has called for a reauthorization and reform of the Trade Adjustment Assistance (TAA) program to meet the needs of these displaced workers. The Administration is committed to supporting effective and improved trade-adjustment assistance to workers who are displaced due to import competition.

Despite the overall benefits of trade, there are some who propose suspending our efforts to liberalize trade and even increasing trade barriers as a remedy for the adverse effect of trade on some workers. Increased protectionism, however, has proven itself ineffective as a means to address these concerns. In fact, the cost of protectionism often greatly outweighs the benefits. One study reports that, at the time of the analysis, on average, each job saved in 21 sectors protected by such trade restrictions as high tariffs, import quotas, and other measures cost consumers $170,000 per year in higher prices and reduced purchasing.

Increased protectionism can also have unintended negative effects on domestic industries that use goods produced by protected industries as inputs to their own production. The majority of U.S. imports are intermediate goods; trade restrictions raise the price of these goods and directly harm other domestic industries. By increasing the cost of inputs, protection of one industry can have adverse effects on employment of other industries. Protectionism can also cause companies that use the protected inputs to move jobs and production out of the United States.

Conclusion

Over the last few years there has been a dramatic increase in U.S. exports. This growth is in large part due to increases in foreign demand, increased domestic production, changes in the terms of trade, and reductions in the cost of international transactions. The U.S. economy has benefited substantially from increased trade and, in particular, from the rapid growth of its exports. Exporting firms are typically fast growing and pay higher wages. Thus, increased exports translate into positive benefits for workers in export-oriented industries.

Being more engaged in global trade provides other benefits as well. Trade helps keep prices low and allows for a wider variety of goods and services. Several studies have revealed that there are sizable costs to limiting trade, and benefits to expanding trade. The Administration has worked to lower trade barriers and open markets for U.S. producers through multilateral, regional, and bilateral negotiations. At the global level, the Administration is aggressively pursuing a successful conclusion to the World Trade Organization's Doha Development Agenda, which has the potential to lower trade barriers around the world and help millions of people escape poverty. The Administration is also seeking to advance broad trade agreements in the Americas and the Asia-Pacific region and bilateral free-trade agreements. Bilateral free-trade agreements have been especially progressive in terms of opening markets for services trade, an area in which the United States has a distinct advantage relative to other countries.