Support for free trade in many parts of the world, though still favorable, appears to have waned recently. This erosion may reflect rising uncertainties associated with job losses in industries that are exposed to international competition. It may also reflect a widening in the income distribution that has been associated with the rise of China, India and other fast-growing countries. On the flip side, imports of low-priced goods and services convey measurable benefits to consumers and companies, and multinational firms are responsible for a significant portion of the rising U.S. productivity growth over the past dozen years.

Hence, like most economic developments, trade produces costs and benefits. Despite these ups and downs, economic history shows that increased economic integration is a long-running process that enhances living standards for an increasing share of the world’s population.

**Globalization: Past and Present**

Globalization can be defined as a phenomenon of increased economic integration among nations, characterized by the movement of people, ideas, social customs and products across borders. This phenomenon has a long history, as attested by the historic trade routes developed during the Roman Empire, as well as those pioneered by Marco Polo or ocean voyagers like Columbus and Magellan. Globalization has been crucial for economic growth over time. In his influential study *The World Economy: A Millennial Perspective*, the noted economic historian Angus Maddison argued that economic advancement across time was sustained by three interactive processes:

- conquest or settlement of relatively empty areas that had fertile land, new biological resources or a potential to accommodate transfers of population, crops and livestock;
- international trade and capital movements; and
- technological and institutional innovation.

As Maddison and others have noted, technological innovations have played a key role in spurring previous globalization episodes. Transfers of technology from Asia and Egypt (e.g., silk, spices, textiles, glass blowing and rice) helped Venice and its colonies play a key role in the development of Europe. Similarly, innovations in shipbuilding and navigation were crucial to developing new trans-oceanic routes and to reducing shipping costs. Later, advancements in science and finance helped to spur the rise of the Dutch Republic and Britain as colonial powers and intellectual hubs (universities). As economic integration spread across continents, political and financial institutions evolved to enhance and regulate the global marketplace.

The current globalization period, which more or less began in the 1960s, contains many of the same aspects of earlier episodes. In today’s case, falling transportation costs, the opening up of new markets (Asia, Eastern Europe and South America) and the general lowering of tariffs worldwide have helped boost international trade as a share of domestic economic activity.
A key development behind the current globalization wave is the revolution in information and communication technologies (ICT). Although the movement of ships, trucks or railroads carrying merchandise goods is still the dominant form of trade between countries, trade in services that takes place across transoceanic cables or by satellite is of increasing importance. As with earlier episodes, falling real costs of transportation, of the processing of information and of the spread of new ideas—in this case, via the Internet—have been crucial.

The increased openness of the United States and the rest of the world to international trade can be seen in the figure, which shows the sum of imports and exports of goods and services as a share of GDP. Whereas the U.S. share of trade is a little more than a quarter of GDP, the rest of the world’s exposure to international trade is considerably larger: 70 percent. From this standpoint, developments that affect the movement of financial capital across international borders—the opposite of trade in goods and services—can sometimes have significant consequences for many countries. For example, the 1998 Asian and Russian financial crises showed for many countries. For example, the 1998 Asian and Russian financial crises showed that when economic turmoil increases uncertainty among international investors, financial capital can move rapidly, causing significant changes in living standards among the affected countries. Sometimes, these disruptions can affect the viability of firms (Long-Term Capital Management) or spur central banks to take actions designed to calm financial markets.

The entrance of China, India, Brazil, Russia and other countries that are relatively recent entrants to the global capitalist system also affects the movement of the means of production of goods and services across borders. One aspect of this is foreign direct investment. According to the Organisation for Economic Co-operation and Development (OECD), these flows are substantial. From 1997 to 2006, foreign direct investment into the United States totaled a little more than $1.64 trillion. The flow from the United States to other countries over this period was modestly less, about $1.58 trillion. Although manufacturers have been moving production facilities across borders for decades, innovations in ICT equipment, software and the development of the Internet have allowed firms to more easily import services they used to produce themselves.

The Benefits of Globalization

Simply put, the benefits of globalization extend directly from the benefits of free trade. International trade is beneficial because it allows a country to specialize in activities it does best, given its endowments of labor, natural resources and technology. (This fundamental concept in trade is known as comparative advantage.) Adam Smith was among the first to demonstrate the economic benefits of specialization in 1776 when he published The Wealth of Nations. Building on Smith’s analysis, the British economist David Ricardo demonstrated the gains from trade using the example of Britain (textiles) and Portugal (wine). As a member of Parliament, Ricardo put his ideas into action by helping repeal Britain’s corn laws in the early 19th century.

Estimates of the net benefits that flow from free trade are substantial. International trade has increased real household income by between $7,000 and $13,000 since the end of WWII, according to a study by economists Scott Bradford, Paul Grieco and Gary Hufbauer. Removing all existing barriers to trade, they argue, would produce an additional real income gain of between $4,000 and $12,000.

Relaxing restrictions on the mobility of labor itself across borders “would produce the largest possible gains for the world economy, and for poor countries in particular,” argues Harvard professor Dani Rodrik. (However, he admits that economic, political and national security concerns would probably prevent the full realization of these gains.)

Another benefit from trade is the increased variety of goods and services available to consumers. The number increased by a factor of four between 1972 and 2001, according to Bradford, Grieco and Hufbauer.7 Without trade, coffee drinkers in the United States would pay much higher prices because the nation’s supply would depend solely on Hawaiian or Puerto Rican sources. Scarce resources would need to be redirected to produce more coffee, leaving fewer resources to producing other goods and services. Similarly, devotees of Hondas or BMWs would be forced to drive Chevrolets or Fords. Given that technological innovations in the automotive industry (and

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<th>International Trade Exposure: United States and the Rest of the World</th>
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NOTE: Trade is the sum of merchandise and commercial services imports and exports. SOURCE: World Bank World Development Indicators and author’s calculations.
other industries) often arise from competitive pressures in the marketplace, the quality of cars might also be much lower.

As the composition and variety of goods and services have evolved over time, some economists have suggested that a modified framework is needed to explain international trade. Now, trade is increasingly viewed as part of a global supply chain, covering everything from research and development to production, as well as marketing and distribution. As such, the process of producing computers, automobiles and airplanes now involves both vertical integration (using components produced by foreign affiliates of the firm) and horizontal integration (using components produced by other firms). For example, a recent Financial Times column by Joseph Gapper reported that 90 percent of the value of Boeing’s new 787 Dreamliner is derived from non-Boeing companies. Parts from outside Boeing include the airplane’s wings, fuselage and landing gear.

The global supply chain phenomenon is widespread. Since 1970, the share of imported inputs in manufacturing production in advanced countries has increased from a little less than 10 percent to a little less than 30 percent.

Services are also increasingly part of this value chain. Many services are of a personal nature—for example, medical, legal, child care, housing and education—and, thus, largely nontradable. However, other services, especially those of a more impersonal nature, such as voice or data entry, can be easily moved offshore to countries where the average wage is much lower. For example, a software company located in the United States may employ engineers in India, mass-produce the software in China and then use its U.S. headquarters to market and distribute the software. Some firms may also move certain services offshore to keep a 24-hour production cycle. Thus, even though the composition and scope of trade in goods and services has changed dramatically from Smith’s and Ricardo’s day, economists still support the fundamental conclusions of Smith and Ricardo: Economic efficiency is increased when resources are allowed to flow to their most productive uses. In short, while globalization has greatly increased competitive pressures on firms, it also has greatly increased the flexibility of firms in the production process.

A key difference between the current globalization episode and those from the past is the sheer magnitude of the number of workers who have entered the global labor pool. That is, the rise of China and India as important exporters of goods and services means that many of their workers are now directly competing with workers in countries like the United States, Japan or Mexico. Economically, an increase in the supply of labor puts downward pressure on wages (assuming no change in labor demand).

One of the arguments that proponents of globalization make is that increased economic integration benefits workers in relatively poor countries by providing them access to new ideas and new technologies; this exposure increases their productivity and real wages. The noted economist Jagdish Bhagwati, at Columbia University in New York, stresses that when a foreign firm establishes a production presence in a poor country, the company brings with it a level of technology and management practices that is usually much greater than that used by local companies. Eventually, many workers who are trained in the foreign multinational corporations either leave to join local firms or start their own firms, enhancing societal welfare. Overall, according to Harvard professor Xavier Sala-i-Martin, world income inequality has declined over the past 20 years.

**Public Lags Economists In Enthusiasm for Globalization**

Americans appear undecided whether globalization conveys mostly positive or negative benefits. A poll sponsored by the Chicago Council on Global Affairs in April 2007 found that 60 percent of Americans had a “mostly good” view of globalization, while a July 2007 Financial Times/Harris poll found that only about 20 percent thought that globalization was having a positive effect. By contrast, economists are charter members of the pro-globalization society. In a recent survey of 210 members of the American Economic Association, nearly 88 percent of economists agreed that the United States should eliminate its remaining tariffs and nontariff barriers to trade. A slightly larger percentage, 90 percent, thought that the U.S. government would be wrong to restrict a firm’s ability to substitute foreign labor for domestic labor.
principally because of the emergence of China, India and the rest of Asia as rising economic powers.

Several researchers have argued that the competitive forces of globalization have also been important factors in boosting U.S. labor productivity growth in recent years. Federal Reserve economists Carol Corrado, Paul Lengermann and Larry Sifimian argue that multinational corporations in the United States, either foreign-owned or domestic-owned, accounted for more than half of the acceleration in nonfarm labor productivity in the late 1990s. This growth can occur in a couple of ways. First, increased competition spurs domestic firms to invest in ICT equipment and software embodied with the latest technology. Second, moving less-skilled labor to low-wage countries increases the relative demand for higher-skilled, higher-productive labor.

Has Globalization Made the Fed’s Job Easier?

The rise of China and India (and other countries) as low-cost producers of goods and services lowers prices of imports directly, as well as indirectly through the competitive forces unleashed upon domestic producers who compete against foreign sellers. In a speech to the American Economic Association meeting in January 2004, former Federal Reserve Chairman Alan Greenspan remarked that globalization “unleashed powerful new forces of competition,” helping to create “an environment particularly conducive to the pursuit of monetary policy.”

On the other hand, rapid growth in countries like China and India has helped to increase the demand for commodities like crude oil, copper and steel. In response, consumers and companies pay higher prices for items like gasoline. Rising gasoline prices, in turn, have spurred public- and private-sector initiatives to increase the supply of gasoline substitutes like ethanol or biodiesel. Increased demand for these alternative forms of energy has helped to raise the price of corn and soybeans, which are key inputs in the production of beef, pork, chicken and other foodstuffs.

Recent research on globalization’s effects on U.S. inflation rates is far from conclusive, perhaps because of the aforementioned offsetting influences. Although the forces of globalization have undoubtedly changed the prices of some goods and services in the short- to medium-run (relative price changes), which have perhaps made the U.S. inflation rate less sensitive to domestic factors, most economists would probably still agree that over time the inflation rate in a country like the United States will ultimately depend on actions taken by the Federal Reserve.

The Downside of Globalization

As an economic proposition, free trade benefits society because it has the potential to make all citizens better off without making any citizens worse off. In reality, while the benefits from trade are positive and sizable, international trade also produces losers. Chief among them are workers and owners of capital (shareholders) in industries that cannot compete with foreign manufacturers. The U.S. textile and television manufacturing industries are but two examples. Faced with falling real wages or unemployment, workers in declining industries will need temporary assistance (unemployment benefits) and longer-term assistance (education)—additional costs that the worker and society must bear. These costs may show up as increased government expenditures on unemployment insurance or worker retraining programs. Increased economic uncertainty among workers may also spur legislation to limit the import of goods and services (rising protectionism).

In a simple model of the domestic labor market, the ability of firms to move part of their production abroad can make the demand for labor much more sensitive to the wage rate. Thus, a rise in the domestic wage rate will cause a much larger decline in the quantity of domestic labor demanded because firms can now substitute a cheaper foreign source of labor. The largest effects are probably among less-skilled workers employed in mundane production processes that can be done much cheaper overseas. Professor Edward Leamer of UCLA deems this the “commoditization of work.” In these types of industries, the product and the process are standardized (making T-shirts or baseballs, or reading service manuals at call centers). As a result, these kinds of domestic jobs are increasingly contested by low-wage foreign workers.

According to Princeton University professor Alan Blinder, importing impersonal services from low-wage countries is nothing less than a “new industrial revolution.” Currently, though, the international outsourcing of intermediate services accounts for only about 1 percent of all intermediate services in the United States, according to the OECD. This percentage may increase further because China, India and other low-wage countries will continue to boost the share of their (large) populations holding college degrees or learning to speak English. Indeed, Blinder claims that between 22 and 29 percent of U.S. jobs are potentially able to be moved offshore “within a decade or...
two.” In other words, the contestability of low-skill jobs may become more intense in the future. Other economists, like Leamer, are more skeptical about the eventual magnitude of the offshore phenomenon in the United States. Whatever the outcome, one would expect that faster economic growth in countries like China and India will cause real wages to increase in those countries, narrowing the wage gap (adjusted for productivity differences) with the United States or other industrialized countries.

A rise in the contestability of mundane jobs—increased competition for lower-skill jobs—implies that future job growth may have to come from existing industries (such as Caterpillar or Wall Street investment banks) or from industries that produce goods and services not yet invented. According to Stanford University professor Paul Romer, this process is rather straightforward: “Economic growth arises from the discovery of new recipes and the transformation of things from low- to high-value configurations.” The production of “high-value configurations” naturally tends to be done by workers with high-skill levels. Jobs that tend to be moved offshore are done by lower-skill workers. Since high-skilled workers are paid a premium for their labor, moving work offshore thereby increases the demand for higher-skilled workers relative to the demand for lower-skilled workers.

One potential consequence of this development is rising income inequality between low-skilled and high-skilled workers. According to the OECD, increases in income inequality have been most pronounced in the United States, the United Kingdom and some smaller European countries. Economists are divided over how much of this increase is due to globalization and how much is due to the skill bias stemming from the increased use of high-tech equipment in the workplace. Regardless, increases in the demand for skilled labor are clear market-based incentives to workers to boost their education levels and, perhaps, for firms to increase their work-force training. The demand for high-skilled workers over the long run can also be boosted by research and development, which is often the genesis of new ideas that boost economic growth and living standards over time.

This brings us back to achieving economic efficiency in the face of globalization. Sometimes, achieving an efficient outcome requires the winners of free trade to compensate the losers. The question is how best to do that. Because many public policymakers and workers evidently associate rising inequality with globalization, some economists argue that additional steps are needed to prevent a further erosion in the public’s support for international trade.Traditional responses to economic dislocation caused by international trade are job retraining, wage insurance or temporary income assistance, such as that offered through the Trade Adjustment Assistance Act. Longer term, most economists have stressed the benefits conveyed by increased education, which seems to be a necessary ingredient for the creation of new ideas. However, as professors Kenneth Scheve (Yale University) and Matthew Slaughter (Dartmouth) have recently pointed out, only a third of the current U.S. labor force has graduated from college, and boosting that percentage will take time. At the end of WWII, the college-educated share was 6 percent. At that rate, they claim, reaching 50 percent of the labor force would not come about until 2047.

To maintain the public’s support for free trade, Scheve and Slaughter propose “a New Deal” for globalization that would boost the take-home pay of those at the lower end of the income distribution. Scheve and Slaughter propose to do this by eliminating the payroll tax for workers below the national median income. Other economists, such as Rodrik, argue that markets “thrive not under laissez-faire but under the watchful eye of the state.” Rodrik, thus, argues that nations should be allowed—and, in fact, encouraged—to restrict financial capital flows according to national interests, while maintaining a relatively free and open environment for the trade in goods and services.

As the introductory discussion suggests, the forces of protection seem to be rising—or, at least, are much more vocal than in recent years past. Ultimately, policymakers must decide whether the cost of imposing trade restrictions, of expanding public programs to compensate the losers of trade or those who perceive themselves as losers, or of taking other measures is a small price to pay for maintaining a global economic system that has produced large benefits for most parts of the world.

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ENDNOTES

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3 July 9, 2007, p. 9.
4 See OECD (2007).
5 See Anderson and Gascon (2007).
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8 See Whaples (2006).