Jobs and Trade

European Economics and Financial Centre (EEFC) Conference
London, England
September 6, 2007

International trade has long been a divisive issue, both in the United States and in other countries around the world. While many, including the vast majority of economists, support free trade on the ground that it improves an economy's overall well-being, those who disagree hold that it accomplishes precisely the opposite: On this opposing view, trade destroys jobs and lowers wages, especially among the most vulnerable members of society. On its face, the job destruction issue cannot be correct for the U.S. economy, which has clearly generated jobs to replace those lost because of imports. The U.S. economy is fully employed, with an unemployment rate below 5 percent.

Recent evidence suggests that the job destruction view is held by a substantial number of people. A poll taken at the end of last year by the Pew Research Center for the People and the Press found that, among Americans, 48 percent believed that free-trade agreements led to job losses in the United States, while only 12 percent thought that free-trade agreements created jobs. The poll also found that 44 percent of respondents believe that free trade lowers wages for American workers, while 11 percent believe it raises wages (Pew Research Center for the People and the Press, 2006). A *Financial Times*-Harris poll released in July of this year found similar opinions among many Europeans. More than 50 percent of those polled in Great Britain, France, Italy and Spain felt that globalization has had a negative effect on their countries. Less than a third responded that globalization has had a positive effect.

Perhaps sensing a rising tide of disapproval among Americans, the U. S. Congress has responded with a number of measures leaning toward economic isolation. In its first three months, the 110th Congress introduced more than a dozen pieces of legislation restricting trade with China (Aldonas et al., 2007). Since April of this year, both the House of Representatives and the Senate have convened numerous hearings to examine the economic implications of trade, especially as it relates to China.[1] Congress has also failed to renew the policy of trade promotion authority, also known as fast-track authority, which permits the president to negotiate trade agreements that the Congress can either approve or reject, but not amend. That authority expired on July 1 of this year.

My purpose today is to review some of the ideas surrounding the debate over trade and the labor market and provide an evaluation in light of the recent evidence on the performance of the U.S. economy.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis for their comments, especially Christopher H. Wheeler, research officer, who provided special assistance. However, I retain full responsibility for errors.

THEORETICAL BACKGROUND

The basic principle underlying international trade is this: When countries specialize in the

1 The U.S. Senate held a hearing entitled "Is 'Free Trade' Working?" on April 18, 2007 and "U.S. Trade Relations with China" on July 25, 2007. The House held a "Hearing on Legislation Related to Trade with China" on Aug. 2, 2007.

production of the goods and services they produce particularly well and trade for those they produce relatively less efficiently, all countries can be made better off, at least in aggregate. Interestingly, while most find the idea of comparative advantage and gains from trade obvious in the case of individuals—we are, after all, much better off specializing and trading than we would be if we had to produce everything for ourselves—many remain skeptical of trade's benefits for countries. This basic principle, however, applies to nations just as it does to individual households as producers and consumers.

Consumers and workers also stand to gain from trade through increased competition. Recent research has demonstrated that, by increasing competition among producers, trade forces an economy's inefficient firms out of the market, thus spurring a reallocation of labor from less-productive to more-productive employers (Bernard et al., 2007). Evidence of this productivity effect is also apparent in cross-country studies that find that economic growth is strongly tied to openness to trade (Edwards, 1998).

Trade theory also asserts, however, that within any given country, the gains from trade may be unevenly distributed. To be sure, the vast majority of individuals undoubtedly gain for the reasons I have just described. Yet, there will be some workers who experience labor market disruptions as their jobs are eliminated due to rising imports or the offshoring of production facilities. These individuals clearly suffer, and their losses in terms of job opportunities, income and morale can be both substantial and long-lived.

For developed, capital-abundant countries like the United States and the United Kingdom, standard trade theory suggests that trade with the developing world will have its greatest negative effect on the less-skilled because developing economies such as China and India are relatively abundant in that type of labor. The United States, for example, imports large quantities of apparel, furniture and toys from China, while exporting significant quantities of civilian aircraft and semi-conductors (U.S. Census Bureau, Foreign Trade Statistics). One of the possible labor market outcomes of trade liberalization, then, is a widening of the earnings distribution in the developed world. Many are rightly concerned about this possibility. Within recent decades, both the United States and Great Britain have seen the extent of inequality in their wage distributions increase sharply.

Formal trade theory does not, however, posit what so many in the world's developed economies seem to believe: that trade leads to net job losses and lower average wages. This concern has long been raised with imports, but it has been magnified by the perceived rise in recent years of offshore production, which Thomas Friedman describes with so many compelling anecdotes in his recent book, *The World Is Flat*. Some of the most recent concerns, in fact, hold that the developed world's high-wage jobs, such as those in business services, are now at risk of being shipped overseas.

Are trade and offshoring destroying American jobs and reducing wages in the United States? Let me begin with a brief overview of the state of the U.S. labor market.

RECENT DEVELOPMENTS IN THE U.S. LABOR MARKET

Overall, most indicators suggest that the U.S. labor market is strong. Following a period of sluggish growth between June 2000 and August 2003, a period that saw payroll employment in the United States fall by more than 2 million, the U.S. economy has since created, on average, 167,000 net new jobs per month. This figure translates into an average growth rate in the number of non-farm jobs in the U.S. of approximately 1.6 percent per year, which is not substantially different from the average sustained during the second half of the twentieth century. The current unemployment rate is below 5 percent, compared to an average of 6 percent over the past quarter century.

Just looking at 2007, the numbers have not been quite as robust, but they are far from slow. Between January and July of this year, the U.S.

economy has averaged a job creation rate of 132,000 jobs per month, or about 1.2 percent at an annual rate. Given that the unemployment rate has hovered around 4.5 percent since January, and has remained below 5 percent for much of the last two years, the economy seems to be operating near full employment. Rather than being a sign of a weakening economy, the recent slowdown in the rate of job creation is almost certainly related to a slowing of labor force growth as the baby-boom generation reaches retirement age.

Recent figures on earnings are also positive. Within the last 12 months, average hourly earnings in the private, non-farm sector have increased by nearly 4 percent in nominal terms and 1.7 percent after accounting for inflation. This development is particularly encouraging following a four-year period in which average real hourly compensation showed essentially no growth.

EVIDENCE ON TRADE AND JOB GROWTH

The evidence clearly points to a largely favorable labor market. Given that, over the past four years, U.S. trade volumes have steadily increased, with the sum of imports and exports rising from 24.7 percent of GDP in the third quarter of 2003 to 29 percent in the second quarter of this year, the data do not support the claim that trade is destroying American jobs. More precisely, U.S. employment is high, despite significant job losses in industries impacted by imports. Employment security is high, even though job security in industries affected by imports is not. In a strong aggregate job market, displaced workers soon find new jobs.

A casual reading of the evidence indicates that the business cycle is far more important than trade in determining the rate at which the U.S. labor market is gaining or losing jobs. To examine trends in both international trade and U.S. employment growth since 1995, consider three periods: (i) 1995 to 1999, (ii) 2000 to 2003, and (iii) 2004 to the present. The first and third periods are meant to represent times when both the U.S. labor market and the economy as a whole were expanding. The middle period, of course, reflects the recession and sluggish job market following the recession.

One of the most salient features of the data from these three periods is the strong positive association between the rate of job growth and the rate of import growth. The highest rates were seen during the latter half of the 1990s, when employment growth averaged 241,000 jobs per month, an annual rate of 2.4 percent, and the real value of imports of goods and services grew at an average annual rate of 10.4 percent. Since January of 2004, those rates have been somewhat slower, with the labor market creating 182,000 jobs per month and imports rising at an average annual rate of 7.2 percent.

Compare these figures with those from our period of slow growth. Between 2000 and 2003, the U.S. economy lost 5,000 jobs per month, on average, and imports expanded at an annual rate of 4.4 percent. Such evidence, I contend, provides little support to the notion that rising imports have come at the expense of U.S. jobs.

Additional evidence, based on more detailed empirical analyses, demonstrates a similar point. A 2004 study by Martin Baily and Robert Lawrence finds that, while the U.S. was losing many manufacturing jobs between 2000 and 2003, the share of imports in U.S. domestic spending on goods actually decreased from 31.8 percent to 31.4 percent (Baily and Lawrence, 2004).

A study by economists at the Federal Reserve Bank of New York finds that data on gross job destruction show little evidence that rising trade lowers U.S. employment. Although the rate of job destruction increased during the 2001 recession, just as it typically does during economic downturns, that rate has since fallen to levels below those sustained during the rapidly expanding labor market of the 1990s (Groshen et al., 2005).

None of these findings is intended to imply that trade and offshore production have not had any negative influence on U.S. employment. The same New York Fed study estimates that, over the past two decades, job losses from the increas-

ingly negative net export balance might have amounted to as much as 2.4 percent of total U.S. employment in the year 2003, when the labor market was near its most recent bottom (Groshen et al., 2005). This estimate, of course, is based purely on a simple calculation of how many American jobs are represented by the U.S. net export balance in goods and services. As the authors of that study stress, looking at the estimated job loss by itself does not account for any of the likely benefits of trade, such as improved efficiency and higher real incomes for U.S. workers, both of which may boost domestic employment. In spite of this omission, their numbers still suggest that trade-related job destruction is minor in the context of the total U.S. labor market.

Some may still argue that the business cycle does not fully account for the loss of manufacturing employment. After all, even though U.S. employment has increased by nearly 2 million over the past year, the economy has lost 175,000 manufacturing jobs. Is it possible that trade and offshoring have caused these losses?

A recent paper by the economist Ed Leamer (Leamer, 2007) suggests that the answer is largely "no." To arrive at this conclusion, Leamer compares changes in domestic demand for goods to the domestic growth of productivity and the rise of manufacturing imports in order to explain changes in U.S. manufacturing employment. All else held constant, a rise in domestic demand should increase employment, whereas rising productivity growth and imports should both decrease it. Between 1970 and 2005, the productivity effect on durable manufacturing employment was roughly 11 times larger than the effect associated with rising imports. In the non-durables sector, the ratio was even larger: The estimated productivity effect on employment was 30 times that of the effect from trade. The loss of manufacturing jobs, which has been occurring in the United States for decades, seems to have its roots in the growth of productivity rather than in the rise of imports.

Is there any evidence that trade has harmed U.S. workers by destroying high-paying jobs? That is, as trade volumes have increased, have we seen the distribution of jobs shift toward lower paying positions? If we look at some recent figures describing the growth of jobs within certain industries and occupations in the United States, we find little support for this contention. Since 2004, the fastest growing broad occupational category, both in percentage terms as well as absolute number of jobs, was business and financial operations, which includes accountants, auditors and financial analysts. This occupation grew by more than 13 percent between May 2004 and 2006, adding nearly 700,000 jobs. Sizable job gains were also registered in computer and mathematical science occupations; healthcare practitioners; education training and library service; life, physical, and social sciences; and legal services, which collectively added nearly 1 million jobs over this same period. Median hourly earnings in each of these occupational groups exceed the overall U.S. median. Evidently, in a time of rising international trade, there has been strong employment growth at the upper end of the pay scale.

Certain low-wage jobs have also shown growth. The number of jobs in food preparation, such as cooks and waiters, as well as those in sales, which includes cashiers and other retail establishment employees, expanded by more than 1.1 million between 2004 and 2006. Median earnings in these sectors of the American economy are below the national median. Of course, the growth of these types of jobs may be related to the overall strength of the U.S. economy. Indeed, the extent to which retail establishments and restaurants are able to expand their payrolls likely depends directly on overall personal income growth. One of the reasons we have seen growth in low-wage sectors, then, may be the strong growth of jobs in high-wage sectors.

Data covering industries over the past 12 months demonstrate a similar pattern. Since July of last year, the U.S. economy has added nearly 1.9 million jobs, with the largest gains coming in two high-wage sectors—education and health services, and professional and business services—and one low-wage sector—leisure and hospitality. Together, these three industries

accounted for nearly 70 percent of the jobs created over the 12 months ending July 2007.

EVIDENCE ON TRADE, PRODUCTIVITY, AND WAGES

While job growth is clearly a fundamental measure of labor-market performance, many economists would underscore the growth of productivity as an even stronger gauge of an economy's well-being. Indeed, it is largely through productivity growth—the rise in the quantity of output produced per unit of input used—that incomes and living standards improve over time.

Trade turns out to be a significant driver of productivity growth. In part, this connection is the result of the fact that developed nations like the United States import goods produced by relatively low-productivity sectors, such as apparel, textiles and furniture, and export goods and services in relatively high-productivity sectors, including professional and business services and aircraft. This pattern leads to a reallocation of labor from low- to high-productivity work as employment decreases in industries comparatively disadvantaged and expands in industries comparatively advantaged. Evidence of this process is apparent in both the employment trends I have already discussed, especially the growth of professional and business service employment, as well as from research on plant-level dynamics. A recent study has shown that, as industries in the United States have seen greater import penetration from less developed economies, producers within those industries are more likely to switch to the production of more capital-intensive products. That is, they exit low-productivity sectors and enter high-productivity ones (Bernard et al., 2006).

The reallocation of labor from low- to high-productivity firms also takes place within industries. Thus, even though rising imports may produce employment losses within an industry, say primary or fabricated metals, workers in that sector tend, over time, to become concentrated among the most productive producers.

This process has been particularly striking among exporters. Although the vast majority of the firms engaged in export activity in the United States tend to be small in terms of total employment, more than 70 percent of the value of U.S. exports to the rest of the world is accounted for by relatively large ventures, namely those with more than 500 employees (U.S. Census Bureau, 2007). These large firms tend to be characterized by significant capital intensity and high levels of productivity and pay higher wages, on average, than their smaller counterparts. The dominant position of these large producers has developed over time as a direct result of the reallocation of resources from less-efficient organizations to more-efficient ones. Moreover, estimates suggest that this process has delivered enormous productivity benefits to the U.S. economy. A recent study has estimated that productive reallocation may account for as much as 40 percent of the growth in total factor productivity among U.S. manufacturers during the 1980s and early 1990s (Bernard and Jensen, 2004).

POLICIES TO ADDRESS TRADE'S LOSERS

Although their numbers are relatively small compared to the size of the U.S. economy, many workers have been displaced by trade. Estimates suggest that, between 2000 and 2003, as many as 300,000 service jobs (Garner, 2004) and another 314,000 manufacturing jobs (Baily and Lawrence, 2004) may have been lost due to trade. These individuals, in many instances, experience significant losses. Studies have shown, for example, that re-employment rates tend to be lower among workers displaced by trade than those who are unemployed for other reasons (Kletzer, 2005). Studies also show that, among those who do eventually find new jobs, about two-thirds earn less on their new job than on the job they lost (Kletzer, 2005).

Rather than place further limitations on trade, which would surely hamper economic growth, policymakers should make sure that

workers who are displaced by trade receive the assistance they need in order to find new work. The United States enacted its Trade Adjustment Assistance program in 1962 to offer workers who have been displaced by trade both income assistance and training in an effort to help them make the transition to a new line of work. Certain workers may, instead, opt for Alternative Trade Adjustment Assistance, which provides wage insurance for workers who move on to jobs that pay less than what they had received before being displaced. The United States also has two additional programs aimed at helping unemployed workers find jobs: unemployment insurance (UI), which provides income support, and the Workforce Investment Act, which helps workers pay for training.

Such programs are certainly constructive, but more could probably be done to assist those who have lost a job. Trade Adjustment Assistance currently covers workers who lose jobs due to imports of goods, but offers no coverage for workers displaced by imports of services. Given that the majority of the American workforce is employed in services, and recent trends suggest that future trade-related worker displacements may come increasingly from the service sector, the program should probably be expanded. There have also been criticisms leveled at the operation of the program based on its high rate of denial, which stands at roughly a third of all applicants, and its rather modest size when compared to the volume of trade in which the U.S. is engaged (Mastel, 2006). In 2004, for example, the federal government allocated 1.3 billion dollars to the program. Although large in an absolute sense, this figure is small when compared to the $1.5 trillion of imports and $23.6 billion collected in tariff revenue in that year.

In addition, as Chairman Bernanke noted in remarks three years ago, the program is confounded by the difficulty of identifying workers who have been displaced by trade as opposed to some other reason (Bernanke, 2004). It is also not clear why workers who have been displaced by trade should receive greater assistance than those who have been displaced by, say, technological change. Improving programs that help all displaced workers move on to new jobs may help to persuade Americans that free trade is worthwhile.

I would also like to stress two other policies that are crucial to the well-being of the American labor force. First, economies must continue to promote education at all levels, including expanding opportunities for post-secondary education. Not only are highly educated individuals better prepared to succeed in an information technology dominated workplace, they also experience lower rates of job displacement, shorter durations of unemployment and greater wage growth over time (Bureau of Labor Statistics). Second, policymakers should continue to pursue macroeconomic strategies that ensure full employment and price stability. As my comments earlier have indicated, for countries like the United States and the United Kingdom, the employment situation is largely determined by the state of the domestic macroeconomy.

CONCLUSION

During the 1960s and 1970s, many developing nations feared that opening their economies to trade with the more developed world would make them worse off (Freeman, 1995). Yet, by liberalizing their trade policies, many developing economies, including South Korea, Taiwan and China, have experienced long periods of rapid economic growth (Krueger, 2004).

Within recent years, a significant anti-trade sentiment seems to have emerged in the developed world. As policymakers, it is incumbent upon us to maintain a commitment to free and open trade, while helping those who experience losses from it find new opportunities. In doing so, we hope to ensure continued increases in our standard of living and persuade greater numbers of people that trade can be beneficial for everyone.

REFERENCES

Aldonas, Grant D.; Lawrence, Robert Z. and Slaughter, Matthew J. "Succeeding in the Global Economy: A New Policy Agenda for the American Worker." Financial Services Forum Policy Research, 2007.

Autor, David H.; Katz, Lawrence F. and Kearney, Melissa S. "Trends in U.S. Wage Inequality: Re-Assessing the Revisionists." NBER Working Paper 11627, 2005.

Baily, Martin Neil and Lawrence, Robert Z. "What Happened to the Great U.S. Job Machine? The Role of Trade and Electronic Offshoring." *Brookings Papers on Economic Activity*, 2004, *2*, pp. 211-70.

Bernanke, Ben S. "Trade and Jobs." Presented at the Distinguished Speaker Series, Fuqua School of Business, Duke University, Durham, NC, March 30, 2004.

Bernard, Andrew B.; Jensen, J. Bradford; Redding, Stephen J. and Schott, Peter K. "Firms in International Trade." NBER Working Paper 13054, 2007.

Edwards, Sebastian. "Openness, Productivity, and Growth: What Do We Really Know?" *Economic Journal*, March 1998, *108*, pp. 383-98.

Freeman, Richard. "Are Your Wages Set in Beijing?" *Journal of Economic Perspectives*, 1995, *9*(3), pp. 15-32.

Groshen, Erica L.; Hobijn, Bart and McConnell, Margaret M. "U.S. Jobs Gained and Lost through Trade: A Net Measure." Federal Reserve Bank of New York *Current Issues in Economics and Finance*, 2005, *11*(8), pp. 1-7.

Kletzer, Lori G. "Globalization and Job Loss, From Manufacturing to Services." Federal Reserve Bank of Chicago *Economic Perspectives*, Second Quarter 2005, pp. 38-46.

Krueger, Anne O. "Trade, Jobs, and Growth: Why You Can't Have One Without the Other." Presented at Reuters *Trade, Globalization and Outsourcing Conference*, New York, June 15, 2004.

Leamer, Edward. "A Flat World, a Level Playing Field, a Small World After All, or None of the Above? A Review of Thomas L. Friedman's *The World Is Flat*." *Journal of Economic Literature*, 2007, *45*(1), pp. 83-126.

Mastel, Greg. "Why We Should Expand Trade Adjustment Assistance." *Challenge*, 2006, *49*(4), pp. 42-57.

Pew Research Center for the People and the Press. "Free Trade Agreements Get a Mixed Review." December 19, 2006.