

Imports, Exports, and Jobs

What Does Trade Mean for Employment and Job Loss?

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2002

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Introduction

The second half of the 1990s saw an extended run of strength in the U.S. economy. Both the highs and lows were notable: the government budget was in surplus, the national unemployment rate was at a historical low, the share of the population employed was high, inflation was low, and the stock market was high. These strong U.S. economic indicators stood out against more sobering statistics for virtually all U.S. trading partners. Economic downturns plagued Europe and Latin America, and financial crises rocked Asia.

In the midst of these differing states of economic health, Americans became more aware of the growing relationship between the U.S. economy and the rest of the world. It is now a familiar refrain to claim that the U.S. economy is opening up to the world. For American consumers, there are more imported goods and services to buy. Between 1965 and 1999, imports as a share of gross domestic product (GDP) rose from 5 percent to 13.1 percent. For American workers, a larger share of what is produced in U.S. factories and offices is exported now than 35 years ago. Between the mid 1960s and 1999, the share of exports in GDP rose from 5 percent to 10.3 percent. If we limit our view to merchandise trade (as we will throughout this volume), we can conclude that U.S. manufacturing is more integrated now than at any time in the past century.¹ The integration of the U.S. economy can also be viewed from the perspective of outsourcing, an activity whereby aspects of the production process are accomplished abroad and then combined with domestic production activity. This disintegration of the formerly domestically centered production process has increased considerably in the United States.²

The impact of free trade, now and historically, is a ready source of public debate.³ The terms of that debate differ enormously between participants at the national level (professional economists and politicians) and participants at the local level. Professional economists highlight the net benefits of free trade: gains to consumers from lower prices, gains to the overall economy in efficiency, and higher aggregate welfare. As a group, economists are in broad agreement on the net ben-

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efits of trade to national economies. Similarly, economists agree that liberalized trade reduces incomes to some producers and workers—in other words, the distribution of the benefits from free trade, across industries, occupations, regions, and ultimately individuals, is uneven. Industries such as automobiles, steel, textiles, footwear, and consumer electronics have experienced employment declines as imported goods increasingly compete with domestically produced goods. Growth of foreign markets through exports has conveyed benefits on other industries, including aircraft, computers, entertainment, and finance.

Economists generally are in agreement with these descriptions and other broad-brush statements. For example, most economists acknowledge the existence of costs associated with moving workers and capital from import-competing sectors to other parts of the economy. After all, open trade is about shifting resources toward their most productive uses, and these shifts can be costly. Yet, individual standards of living and people's lives are in the details, and it is in the details where economists find less agreement and even outright division. Some economists, by focusing on the national level, find the costs of reallocating workers and capital across sectors and regions to be small. With large aggregate benefits and small aggregate losses, this side of the debate is “pro-free trade.”

Individuals, unions, small firms, and state and local governments make up the other side of the debate. Where the pro-free trade side emphasizes the benefits, this group highlights the costs of free trade. This side was once less visible at the national level (with election years raising its visibility through the campaigns of political office seekers such as Ross Perot and Patrick Buchanan). As the 1990s ended, the “globalization backlash,” first seen on a visible scale during the street demonstrations in Seattle during the November 1999 World Trade Organization Ministerial meetings, was widely recognized and a potent political force. The strength, and ultimately political clout, of this group is that the workers and communities who experience the costly dislocations from freer trade are on this side.

Scores of articles have appeared on the two sides of the debate, in the popular and academic arenas, and each side makes legitimate points. Trade of goods and services across borders is beneficial for individuals and firms that obtain what they want at lower prices and/or reach new markets. Such trade is not beneficial for those whose firms lose market

share and cease production (or continue only at lower pay and profits), despite the overall gains to the economy. Ross Perot provided the debate's most visible and memorable phrase when he claimed that ratification of the North American Free Trade Agreement (NAFTA) would create "a giant sucking sound" with high-paying jobs leaving the United States for Mexico.

The ground appears to be shifting under the two sides. After much progress in unilateral and multilateral trade and investment policy liberalization, there is currently a policy stalemate on questions of further trade liberalization. One causal interpretation of the stalemate is the ascendancy of the forces highlighting the domestic labor market costs of freer trade. Even with a policy stalemate, however, the process of global economic integration will continue. Yet, it seems most important to remember that free trade is about net benefits; some will win and others will lose. In that light, understanding some of the magnitudes of costs and benefits may contribute to more educated public discourse. This book attempts to do that. Several questions frame the analysis. Is there any validity to the claim that increasing trade is associated with American job loss? What are the theoretical underpinnings of such a claim? What do the data show? Are parts of the claim consistent with the facts and other parts inconsistent?

With my training as an economist, I understand the net benefits of liberalized trade. As a scholar of labor markets and specifically job displacement, however, I also understand the costly dislocations that occur as economies change in response to freer trade. In this book, I try to bring a better understanding of the labor market costs of freer trade into the national policy-making debate. Only by understanding the costs can the nation equitably move forward on the path of international economic integration to enjoy the benefits. Balanced advocacy of free trade by economists requires full recognition that economy-wide positive net benefits do not preclude localized negative net benefits. Economic theory suggests that not everyone benefits from free trade; positive economy-wide benefits result from the gains of the winners exceeding the losses of the losers. Economy-wide, freer trade is only welfare-enhancing if the winners compensate the losers through a transfer of resources by policy. This book aims to measure some of the losses in the hope that future policy making will address them and the people who bear the burden.

OUTLINE, OBJECTIVES, AND FINDINGS

A number of recent studies of the impact of international trade on the domestic labor market have revealed potentially important links between increased foreign competition and reductions in employment and relative earnings, particularly for less-skilled manufacturing workers. This book seeks to add to that research and contribute to future policy debate by providing a detailed examination of the relationship between changes in international trade, employment, and job displacement for a sample of U.S. manufacturing industries. The link between international trade and domestic jobs is explored through studies of both net and gross employment change. Bringing together a variety of measures of employment change may offer a more complete understanding of the impact of trade on domestic employment than any one approach alone. I proceed as follows.

Economists bring to the question of the impact of trade on domestic employment an extensive and informative set of insights known as international trade theory. Some of the basics of trade theory form a useful foundation of this study's empirical focus, and this is the subject of Chapter 2. Different models of international trade point to different indicators of international linkages. In this chapter, I also discuss empirical measures of the intensity of foreign competition.

This study of trade and the domestic labor market builds on a substantial body of earlier research. In Chapter 3, I review the relevant literature in the areas of trade, employment, wages, and job loss. The review is not comprehensive; instead, it establishes basic methodologies and reviews findings. Taken as a group, these studies point to internationalization, particularly expansions of international trade, as a source of declining manufacturing employment and increasing wage inequality but not the most important source.

The real empirical work begins in Chapter 4, where the data on manufacturing employment and job loss are first introduced. The objective of the chapter is to lay out the basic trends in manufacturing employment, job loss, trade, and domestic demand over the period of 1979–1994. This time period is dictated by data availability: the job loss data begin in 1979, and 1994 represents a significant break point in the industry definitions for the trade flows data. With these trends, we

can consider several questions. Has increased import competition been an important factor behind declining employment? Are changes in exports associated with changes in employment? Do these relationships hold for many industries or for a subset of industries? From the perspective of manufacturing employment, the 15-year period from the late 1970s to the mid 1990s was a difficult one. The sector as a whole was rocked by two recessions, a deep one in the early 1980s and another, not so deep, in the early 1990s. Productivity growth was sluggish, and U.S. consumer demand continued to shift away from manufactured goods and toward services. There was also a seeming continued rise of foreign competition. Manufacturing employment has remained fairly constant over the past 25 years, yet the composition of employment within the sector has changed rather dramatically across industries and over time. Employment declined (sharply in many cases) in many manufacturing industries, particularly during the late 1970s and early 1980s. Over time, import share has risen within manufacturing, from imports accounting for an average of 0.066 of domestic supply in 1975 to an average share of 0.171 in 1994 (an increase of 159 percent). In 1994, U.S. firms exported about 12.5 percent of manufacturing shipments to foreign markets, averaged across the industries in the sample. This level represents a 50 percent increase from 1975. Export intensity grew slowly over the late 1970s and fell a bit from 1980 to 1985 with the sharp dollar appreciation of the early 1980s. From 1985 to 1994, export intensity rose 68 percent from 7.2 percent of shipments to 12.5 percent.

Bringing together, descriptively, the data on employment and trade reveals that sharply declining exports are strongly associated with employment decline, particularly in the industries accounting for the bulk of the employment loss. Rising imports are also strongly associated with employment decline but more so in the smaller traditionally import-competing industries (watches and clocks, footwear, and leather products). Apparel, a traditionally import-competing industry, was the biggest employer in the set of top 10 industries for import share gain and export decline. The iron and steel industries appear hard hit by the combination of rising import share and declining exports, as well as large employment losses.

How much employment decline was associated with the rise in import share and/or the decline in exports? Due mostly to employment

size, industries with the largest increases in import share accounted for a noticeably small share of total sectoral employment decline. Of the top import share gainers (and export losers, with solid domestic demand), apparel accounted for the largest share of employment declines, at 7 percent. With apparel at number 8 in rising import share, the top 10 import share gainers accounted for 21 percent of employment decline, and they started with 12 percent of 1979 employment. Four of the industries in this group had considerable export decline. The top 10 in export decline accounted for about 25 percent of employment loss, starting from a 12 percent 1979 employment share.

Industry net employment change is a result of changes in the gross flows of new hires, recalls, quits, displacements, temporary layoffs, and retirements. Following the descriptive analysis of industry net employment change, I turn to one of the gross flows, job displacement, in an analysis that is more novel.⁴ As commonly understood, job displacement is an involuntary (from the worker's perspective) termination of employment based on the employer's operating decisions—not on a worker's individual performance. The focus on job displacement is motivated by the perspective that the amount of social and private adjustment to freer trade depends importantly on gross employment changes, and it is the job loss component of employment change that most concerns workers, the general public, and policymakers. International trade theory, together with previous empirical work, provides a starting point: trade liberalization will lead to labor reallocation, with jobs moving away from import-competing industries and toward export industries. From that starting point, several questions are posed. Descriptively, how does the survey evidence on job displacement accord with standard measures of increasing foreign competition? Is displacement associated with employment losses? Is the incidence of job displacement across and within industries causally related to changes in foreign competition?

The descriptive analysis reported in Chapter 4 reveals that, with a few exceptions, all industries with above-average rates of job loss have above-average employment declines in employment. Industries with employment growth tend to have lower job loss rates. The large employment industries, all with sizeable increases in import share, all had fairly large employment declines and job loss rates at or higher than the sectoral average. Interestingly, the strongest relationship between em-

ployment change and the risk of job displacement is found amongst the set of small (in employment) traditionally import-competing industries, such as leather tanning and finishing (with a 29 percent employment decline and a 0.073 job loss rate), watches and clocks (a 69 percent employment decline and a 0.091 job loss rate), and leather products (a 78 percent employment decline and a 0.142 job loss rate).

For the most part, these high job loss rate industries had both a high import share and experienced a large (positive) change in import share (increasing import competition). In other words, the combination of “trade with job loss” appears to arise from continued, sustained import competition. Industries with lower import share yet large positive change in import share have lower rates of job loss (metalworking machinery, aircraft, and knitting mills), while industries with high import share and average or smaller changes in import share also have average or lower rates of job loss (motor vehicles, and engines and turbines).

The discernible patterns found in the descriptive analysis, while interesting and informative, require more detailed examination in an econometric model. Chapter 5 describes a straightforward empirical model relating changes in foreign trade and foreign competition and changes in industry employment and job displacement, and it is the basis for the econometric analyses that follow in Chapters 6 and 7.

Changes in industry employment are the focus of Chapter 6. Overall, the results are consistent with arguments that increasing imports reduce employment and that increasing exports (and domestic demand) enhance employment. Within an industry on a year-to-year basis, rising exports are more strongly associated with employment growth than are increases in domestic demand. A 10 percent increase in sales due to exports leads to a 7 percent increase in employment, whereas a 10 percent increase in domestic demand leads to a 3.5 percent increase in employment. A 10 percent increase in import share leads to a 4 percent reduction in employment. The employment-enhancing effect of expanding exports is significantly greater than the employment-reducing effect of expanding imports. Across industries, the effect of rising import share on employment is larger, where a 10 percent increase in imports is associated with an employment decline of approximately 5 percent. This is consistent with the more descriptive analysis of Chapter 4, which revealed a relatively strong relationship between rising import share in the traditionally import-competing industries and a much less

systematic relationship in other industries. Within the “typical” manufacturing industry, developed country imports and developing country imports have equally sized effects on domestic employment.

The analysis discussed in Chapter 6 measures increasing foreign competition as changes in import price and suggests that a 10 percent increase in import price is associated with an approximately 3 percent decline in employment. A one standard deviation change in import price, 6.6 percent, implies a 1.98 percent decline in employment.

At the end of Chapter 6, the within-industry estimates of the relationship between changes in trade flows and employment are used to generate counterfactual simulations of the path of employment change, had imports and exports been “frozen” at their 1979 levels. In most industries, there would have been more employment with neutral imports and less employment with neutral exports. If import share had been frozen at its 1979 level, average industry employment would have declined by 8.8 percent. For an average industry, this 4.6 percent difference, due to the increase in imports, represents 11,693 jobs. On the other hand, if exports had been frozen at their 1979 level, employment would have fallen by 19 percent, 5.6 percent more than observed. Thus, the growth in exports “saved” an average of 14,235 jobs in manufacturing. Together, if both imports and exports had been frozen at 1979 levels, employment would have declined by 16.4 percent, or 3 percent more than observed (7,626 jobs).

The empirical focus narrows to job displacement in Chapter 7. A 10 percent increase in sales is associated with a 1-percentage-point decrease in the job loss rate. The most striking result is the large responsiveness of job loss rates to changes in exports. A 10 percent rise in exports lowers the industry displacement rate by 2.2 percent. A 10 percent rise in domestic demand lowers the industry job loss rate by 0.9 percent. The sensitivity of job loss to changes in exports has been overlooked, but it may not be surprising. The rise in exports can be interpreted as a shift in labor demand, leading to an increase in the desired level of employment. At a given level of hiring (accessions) and nondisplacement separations, employment will rise with a fall in permanent job loss.

Most notably, rising import share is associated with a higher displacement rate, but the coefficient is small and the estimate is imprecise. At standard levels of statistical significance, it cannot be rejected

that the “true” effect of changes in import share on the job loss rate is zero. The within-industry effect of rising import share is notably smaller than the cross-industry effect, suggesting that the relationship between rising import share and job loss holds (perhaps strongly) for a subset of industries, but it is considerably weaker systematically or for all manufacturing industries. In other words, specific high import share industries account for the rising import share–job loss relationship, and once those industry effects are accounted for, the correlation between rising import share and job loss is much weaker. This difference is consistent with the descriptive findings (noted in Chapter 4) that high rates of job loss are found in the set of industries facing sustained import competition where large positive changes in import share occur from a starting point of a high level of import share. Differentiating imports by country of origin makes no difference in understanding changes in the rate of job loss.

Chapter 8 concludes and discusses policy implications. For policy, the inclusion of exports into the story requires a reorientation of thinking. “Trade” is not just imports. A usual starting point is that if imports are a culprit in the loss of jobs, then import restrictions can be used to protect jobs. The relatively small elasticities found here show that reducing import share will not boost employment or reduce job displacement by much, and consumers will bear the cost through higher prices. There are industries, however, where the link between job loss and increasing imports is strong. For workers displaced from these industries, losing a job can be a costly experience, with two-thirds of workers earning less on the new job than they did on the old job (see Kletzer 2001). Protecting workers can be accomplished more directly through domestic adjustment assistance policy. This approach has long had considerable support in the domestic politics of freer trade.

This study broadens our understanding of the benefits of export activity. If exports enhance employment growth and reduce job loss, then acquiring or extending access to foreign markets can be a focus of policy. Increasing foreign demand, all else the same, has a sizeable impact on employment growth and it reduces job loss. Particularly for U.S. manufacturing, foreign markets provide a way to maintain demand and employment as American consumers continue, with rising incomes, to shift from goods-oriented consumption to services-oriented consumption.

Notes

1. Feenstra (1998, p. 35) reported merchandise trade relative to merchandise value-added and found the ratio 150 percent higher in 1990 than in 1890 and 273 percent higher than in 1960.
2. Feenstra and Hanson (1997) estimated that imported inputs increased from 5.7 percent of total U.S. manufactured imports in 1972 to 11.6 percent in 1990. Outsourcing is concentrated in textiles, apparel, and footwear (see also Feenstra 1998).
3. Although Americans seem particularly taken by the growth of international trade, it can be useful to remember that the share of trade in the U.S. economy in the mid 1990s was much smaller not only than the share of trade in most other industrialized countries but also smaller than the share of trade in most other industrialized countries 30 years ago. In addition, while trade has grown in the United States, it has grown even faster in some developing countries.
4. The focus is different but not unique. See also Addison, Fox, and Ruhm (1995) and Haveman (1998).