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## Consequences of Trade for Labor Markets and the Employment Relationship

Since the second half of the 1970s, US and Western European labor markets have been performing very badly as far as lower-skilled groups are concerned. As a distinguished labor economist puts it, “An economic disaster has befallen low skill Americans” (Freeman 1996a, 2).

The disaster has two reinforcing ingredients. One is the widening wage premium for skill, which finds expression in an erosion of the real earnings of high school dropouts: the real hourly wages of young males with 12 or fewer years of schooling has dropped by more than 20 percent in the last two decades. The second ingredient is a significant increase in labor-market instability and insecurity, finding expression in greater short-term volatility in earnings and hours worked and an increase in inequality *within* skill groups. Low-skilled workers bear the brunt of this instability. Rates of job loss are up as well, but apparently the increase is less concentrated at the bottom end of the earnings distribution. The anxiety and insecurity these trends generate are reflected in opinion polls.<sup>1</sup> In continental Europe, meanwhile, real wages at the bottom of the skill distribution have risen, but at the cost of a significant increase in unemployment, especially relative to the United States (Freeman 1996a). In short, neither the United States nor Europe has been able to generate a steady growth of “good jobs.”

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1. Levy (1996) reviews some recent polls and finds that respondents are typically more positive about their personal situations than about the economy at large. He also finds considerable nervousness and pessimism about the future.

The troubled state of labor markets in advanced industrial economies has led many influential groups in society—policymakers, labor advocates, and pundits in general—to link these ills directly to globalization. These groups have alleged that intensified competition from low-wage countries, both as sources of imports and as hosts for foreign investors, is largely responsible for the deteriorating fortunes of low-skilled workers. On the other hand, most trade economists have argued that while trade with low-wage countries may have contributed to the trends described above, such trade is still too small to have had a significant effect on labor-market outcomes in the North. These economists have preferred to put the lion’s share of the blame on skill-biased technological change, which is alleged to have reduced the demand for low-skilled workers.

Ironically, in absolving trade from any significant responsibility for the malaise in industrial-country labor markets, economists have taken a tack that sits uncomfortably with their faith in the benefits of free trade. A cornerstone of traditional trade theory is that trade with labor-abundant countries reduces real wages in rich countries—or increases unemployment if wages are artificially fixed. Indeed, in the standard factor-endowments model, trade creates gains for nations precisely by altering the relative domestic scarcity of factors of production such as labor. Hence, saying that the impact of globalization on advanced-country labor markets is quantitatively rather small in the real world and is overshadowed by other phenomena (such as technological change) is no different from saying that the gains from trade have in practice been small. Conversely, if one believes that expanded trade has been a source of many of the good things that advanced industrial economies have experienced in the last few decades, one is forced to presume that trade has also had many of the negative consequences that its opponents have alleged.

This chapter focuses on two channels through which globalization affects labor markets in the North. The first of these, and the one that has been most extensively examined in the literature, is the effect on the relative demands for skilled and unskilled workers. Since the developing countries tend to export goods that make relatively intensive use of low-skilled labor, trade with these countries displaces low-skilled, labor-intensive production in the United States and Western Europe and thereby reduces the demand for low-skilled labor there. In technical terms, trade results in an *inward shift* in the demand curve for low-skilled labor in these advanced countries.

The second channel has to do with the greater ease with which domestic workers, particularly of the low-skills type, can be substituted by other workers across national borders, either through trade (outsourcing) or through foreign direct investment (FDI). Using technical terms again, trade *flattens* the demand curve for labor at home and increases the elasticity of demand for labor—that is, trade increases the degree to which employ-

ers can react to changes in prevailing wages by outsourcing or investing abroad. Taken together, an inward shift and a flattening of the demand curves for low-skilled workers reduce average earnings for low-skilled workers while increasing both the dispersion of earnings among such workers and the volatility in wages and hours worked. This can explain why life has become more precarious, and insecurity greater, for vast segments of the working population.

## **Consequences of Trade with Countries Having Abundant Unskilled Labor**

Among the many possible effects that globalization can have on labor markets, the relationship between trade with developing countries and the rise in the skill premium has been the subject of economists' most extensive scrutiny (among the leading studies are Borjas, Freeman, and Katz 1992; Lawrence and Slaughter 1993; Wood 1994; Sachs and Shatz 1994; Leamer 1996). There are also a number of useful surveys and evaluations of the literature (Wood 1995; Richardson 1995; Freeman 1996a; Cline 1997).

The reason that this question has received so much attention is that there are solid theoretical reasons to believe that increased exposure to trade with low-income countries will widen the skill premium in the advanced countries. This implication follows rather directly from the reigning theory of international trade: the Heckscher-Ohlin-Samuelson factor endowments model. Consider a country that is well endowed in skilled workers, such as the United States. Suppose that it suddenly becomes possible for this country to trade with another country that is well endowed with unskilled labor, say China, because, for example, China liberalizes its trade regime and hence becomes an active participant in international trade. Naturally, China will export low-skill-intensive products to the US market and import high-skill-intensive goods in return. According to the theory, as long as Chinese exports replace some domestic production in the United States, this will result in a fall in the relative demand for unskilled workers in the United States compared with the demand for skilled workers. This, in turn, will increase the skill premium in the United States (and reduce it in China). Every student of trade theory has been taught some version of this basic story.

Hence the empirical studies have focused on the question, how much has trade reduced the demand for unskilled labor in the developed countries? The conclusion has generally been "some but not a whole lot." As Krugman (1995, 2-3) puts it:

It is probably fair to say . . . that the majority view among serious economic analysts is that international trade has had only a limited impact on wages. Skepticism about the effects of trade on wages rests essentially on the observation

that despite its growth, trade is still quite small compared with the economies of advanced nations. In particular, imports of manufactured goods from developing countries are still only about 2 percent of the combined GDP of the OECD. The conventional wisdom is that trade flows of this limited magnitude cannot explain the very large changes in relative factor prices that have occurred—in particular, the roughly 30 percent rise in the wage premium associated with a college education that has taken place in the United States since the 1970s.

So one reason the empirical models yield meager effects is that the relevant flows of trade are small. Note that Krugman's 2 percent figure refers to trade with developing countries alone. The reason that this is the relevant number in this context is that, according to the Heckscher-Ohlin model, only trade with countries that differ in their relative factor endowments (e.g., unskilled labor versus skilled labor) should matter for relative wages. So the bulk of trade, which takes place *among* industrial countries with similar factor endowments, is assumed to have no effect on labor markets and therefore does not enter the empirical analysis in any meaningful manner. As I will elaborate below, this assumption is one important reason the existing methodologies have underestimated the effect of trade on labor markets.

Even within the confines of this narrow approach, however, one can generate much greater estimates by considering the role of immigration from low-skill countries, along with trade. Borjas, Freeman, and Katz (1992) do this for the United States by calculating the factor content of trade and immigration flows together. Using reasonable estimates of the elasticity of substitution between skilled and unskilled workers, they conclude that about 40 percent of the increased wage differential between high school dropouts and other workers can be attributed to these two forces at work.

A second reason that many trade economists have discounted the effect of trade—along with results such as those of Borjas, Freeman, and Katz (1992)—is that the mechanism outlined above must operate through product prices. In the canonical factor endowments model, the skill premium can rise *only* if there is a corresponding fall in the relative price of low-skill-intensive goods. Since it has been difficult to document significant changes in this relative price for the decade of the 1980s, during which most of the wage effects took place, the conclusion has been that neither trade nor immigration could have played a significant role (Bhagwati 1991; Lawrence and Slaughter 1993).

By going outside the Heckscher-Ohlin theory, one can generate additional channels through which trade with developing countries widens the skill premium. Wood (1994), for example, argues for a much larger role for trade on the basis of two key assumptions. One is that import competition has driven out of operation many of the most low-skill-intensive activities that would otherwise have been active in the advanced countries. Calculations of the implied factor content of trade that look at

*existing* factor proportions in the remaining import-competing activities therefore underestimate the reduction in the demand for unskilled workers as a consequence of trade. Second, he assumes that import competition from the South has induced labor-saving technological change in the North. At least some of the technological changes to which many trade economists have attributed the rising skill premium could be caused by trade itself.

Borjas and Ramey (1995) focus on labor's share in the rents in certain imperfectly competitive industries (i.e., those that enjoy market power). In their story, import penetration in durable goods industries, unaccompanied by increased exports, results in a higher skill premium:

[M]ost of the workers in durable goods manufacturing are high school dropouts or high school graduates. These workers tend to share the rents in their industry in the form of wage premiums; workers in industries with larger rents earn a higher premium. When foreign firms enter markets (domestic or foreign) in which domestic firms have substantial market power, they capture rents that would otherwise go to the domestic industry. This entry increases the relative wage of college graduates in two ways. First, because the rents of domestic firms have fallen, the wage premium of workers remaining in those industries decreases. Second, to the extent that foreign competition reduces employment in the concentrated industries, many of the workers must move to the lower paying competitive sectors of the economy. Overall, the wage of less educated workers falls relative to that of college graduates. (1080)

Borjas and Ramey suggest that the decline in employment in such industries may account for up to 23 percent of the change in wage inequality (1995, 1078). This conclusion has been disputed by Lawrence (1996, chapter 4), who argues that there is no evidence of a decline in the wage differential between high-wage and low-wage sectors and that trade may actually have pushed workers into the high-rent sectors (which in the United States tend to be exportables).

The twists and turns of this debate have been well chronicled by Cline (1997), who surveys and critically evaluates these and other empirical studies. Since I have little new to contribute to this particular debate, I am content to take Cline's own conclusion: "My own point estimate is that international influences contributed about 20 percent of the rising wage inequality in the 1980s" (177). As he notes, this is at the upper end of the 10 to 20 percent range that most trade economists would be happy with.

Regardless of whether one takes 10 or 20 percent as the more realistic number, however, a few points of elaboration are in order. As I have already argued, this number has been generated by taking a very narrow cut at the issues, a point that will be amplified in the next section. Second, in some sense neither 10 nor 20 is really a small number. Economics is notoriously bad at quantifying forces that most people believe are quite important. For example, no widely accepted model attributes to postwar

trade liberalization more than a very tiny fraction of the increased prosperity of the advanced industrial countries. Yet most economists do believe that expanding trade was very important in this progress.

The empirical evidence for what is the leading contender for an alternative cause of rising wage inequality—skill-biased technological change—is far from overwhelming.<sup>2</sup> Note, moreover, that it is difficult to treat technological change as being entirely *independent* from trade. Trade may act as a conduit for technology and create pressures for technological change. When Rupert Murdoch goes on a global buying spree and replaces workers with machines at all the newspapers he acquires, it is not at all clear that the resulting labor-market pressures should be attributed to technological change rather than globalization.<sup>3</sup> Hence, when economists say that the effect of trade is “small,” they are certainly not saying that it is small relative to some other cause that they have actually identified. Statements of the sort “trade has been of secondary importance compared with technical change” are therefore inaccurate.

## Consequences of a More Elastic Demand for Workers

In an economy that is more open to foreign trade and investment, the demand for labor will generally be more responsive to changes in the price of labor, or more elastic. The reason is that employers and the final consumers can substitute foreign workers for domestic workers more easily—either by investing abroad or by importing the products made by foreign workers. Since the demand for labor is a *derived* demand, which varies proportionately with the elasticity of demand for goods, the integration of goods markets alone makes the demand for domestic labor more elastic (Richardson and Khripounova 1996). The point is put graphically by labor representative Thomas R. Donahue (quoted in US Department of Labor 1994, 47):

[T]he world has become a huge bazaar with nations peddling their work forces in competition against one another, offering the lowest prices for doing business. The customers, of course, are the multinational corporations.

In the standard Heckscher-Ohlin trade model, domestic labor demand is in fact perfectly elastic (infinitely responsive to changes in wage costs) as long as there is incomplete specialization, even in the absence of foreign

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2. Perhaps the most convincing paper on this score is Berman, Machin, and Bound (1996).

3. The Murdoch example was given by Eli Berman during his presentation of the Berman, Machin, and Bound (1996) paper at the 1996 Summer Institute of the National Bureau of Economic Research, Cambridge, MA.

investment.<sup>4</sup> More generally, the demand for any factor of production (such as labor) becomes more elastic when other factors (such as capital) can respond to changes in the economic environment with greater ease (by moving offshore, for example).<sup>5</sup>

One of the most robust findings in the empirical literature on trade is that trade integration increases the elasticity of demand for goods faced by domestic producers, a fact revealed by a reduction in price-cost margins. Since, as mentioned above, the demand for labor is a derived demand with a direct link between the elasticities of demand in product and labor markets, this evidence has an obvious bearing here. In a recent study, Matthew Slaughter has provided even more telling evidence. Slaughter (1996) documents that the demand for production labor in the United States has become more elastic since the 1960s in most two-digit manufacturing industries and that the labor demand elasticity tends to be higher (in absolute value) in industries that exhibit greater levels of international integration. Similarly, Richardson and Khripounova (1996) report a doubling of the cross-sectional elasticity of demand between 1979 and 1991 for production workers but (interestingly) not for nonproduction workers. Note that the relevant measures of openness in this context are not the volumes of trade or investment, but the *ease* with which international transactions can be carried out.

While much of this is well recognized, the implications on the workings of the labor market have not received much attention. As noted above, the economics literature has focused on identifying how far the demand curve for low-skilled labor has shifted down and not on the consequences of the increase in the elasticity of this demand. Focusing on the latter is important because it can account for many of the observed changes in the labor market without being accompanied by large changes either in trade and investment flows or in relative goods prices. As noted in chapter 1, the increased substitutability of low-skilled workers across borders affects three key ingredients of the employment relationship: the incidence of nonwage costs, volatility of earnings and hours worked, and bargaining in the workplace. I take up each in turn.

## Incidence

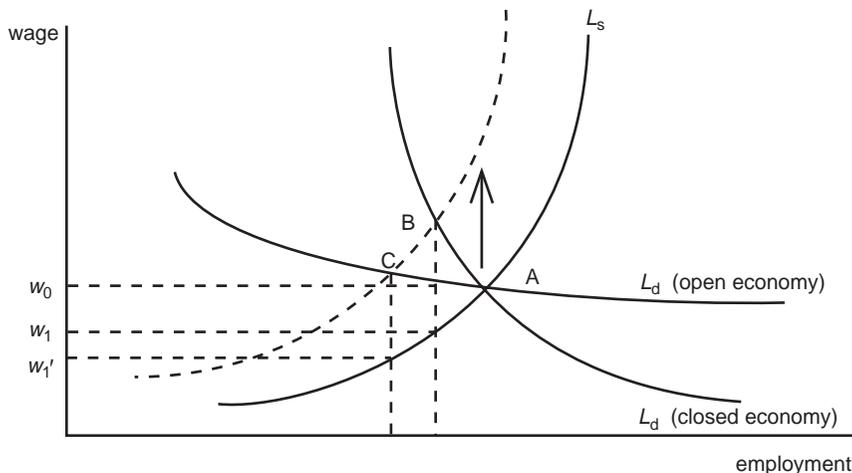
Increased trade and investment opportunities make it more costly for workers to achieve a high level of labor standards and benefits. The costs of improved working conditions can no longer be shared with employers

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4. See Leamer (1996) for a nice exposition.

5. This follows from the Le Chatelier-Samuelson principle. I thank Avinash Dixit for reminding me of the relevance of the principle in this context. Appendix A presents a simple model in which the elasticity of demand for domestic labor increases with the international mobility of physical capital.

**Figure 2.1 Effect of openness on the distribution of the costs of labor standards between employers and workers**



Imposition of a labor standard shifts the labor supply curve ( $L_s$ ) up. In a closed economy, wages then fall from  $w_0$  to  $w_1$ . In an open economy, wages fall from  $w_0$  to  $w_1'$ .

with the same ease as before because employers are more sensitive to changes in such costs. The larger this elasticity of demand for labor, the higher the share of such costs that the workers themselves must bear.

The point can be seen using the supply-demand framework (figure 2.1). The initial labor-market equilibrium in the North is represented by point A, with wages at  $w_0$ . Now consider the consequences of raising labor standards—say, enhancing workplace safety. From the perspective of employers, labor standards can be viewed as a tax on employment. The result is a shift up in the effective labor supply curve ( $L_s$ ) by an amount corresponding to the additional (per-worker) cost of introducing the standard. In the new equilibrium, as in the usual tax-incidence analysis, some of the additional cost will be borne by employers and the rest by workers. What determines how that cost is distributed between employers and workers is the elasticity of demand for labor. Two cases are shown in the figure—labor demand ( $L_d$ ) in an open economy and in a closed one.

As figure 2.1 shows, the more elastic labor demand is (represented by the flatter open-economy demand curve), the greater the part of the cost increase workers must bear: wages fall from  $w_0$  to  $w_1'$  rather than from  $w_0$  to  $w_1$ . The reduction of employment in the affected industry is larger as well. Hence, in an integrated world economy, higher labor standards cost workers more in terms of both wages and jobs.

This relates to a common complaint that low labor standards in exporting countries pressure importing countries to adopt lower labor standards as well. This is the well-known race-to-the-bottom argument, according

to which workers in the North will have to acquiesce in standards that are low enough to prevent footloose capital and employers from deserting them for the South.

The argument has surface appeal but is correct only in the limited sense that globalization alters the incidence of nonwage costs. The case against the race-to-the-bottom argument has been put well by Richard Freeman (1994a): Any country that wants higher labor standards can purchase them for itself, regardless of the level of standards in other countries, in one of the following three ways. First, a currency devaluation can be used to reduce domestic costs in foreign currency terms, thereby offsetting the loss in competitiveness. Second, there could be a downward adjustment in wages directly (which is the incidence point again). Third, the government can pay for the cost of higher labor standards, financed through an increase in taxes. Provided one or a combination of these approaches is followed, the presence of demanding labor standards does not put competitiveness and jobs at risk in rich countries. The race to the bottom need not take place.

Yet, as the incidence analysis shows, there is a sense in which globalization makes the race to the bottom a possibility. Freeman is correct, of course, that higher labor standards can be maintained if there is a willingness to pay for them. What increased openness to trade and foreign investment does, however, is render it more difficult for workers to make other groups in society, and employers in particular, share in the costs. Consider the three options mentioned earlier: devaluation, taxation, and wage cuts. As long as employers and capitalists have the option of moving (or importing from) abroad, they cannot be induced to take a hit in terms of real after-tax earnings.<sup>6</sup> Therefore, devaluation can work only insofar as it results in a disproportionate cut in take-home real wages. The same is true for taxation. One way or another, it is workers that must pay the lion's share of the cost.

Hence globalization makes it difficult to sustain the postwar bargain under which workers' pay and benefits steadily improved in return for labor peace and loyalty. It could be argued that this is appropriate insofar as it is *labor* standards, and hence an improvement in the working conditions for labor, that is at issue. Labor advocates, in turn, could point out that increased economic integration is undoing the implicit bargain with employers.

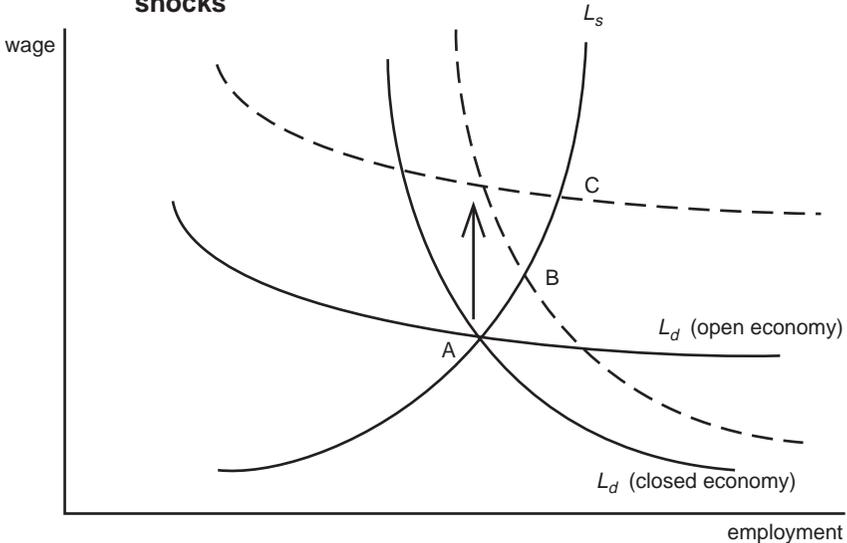
## Volatility

The flattening of labor demand curves as a consequence of globalization results in greater instability in labor-market outcomes. Shocks to labor

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6. To the extent that it remains costly to move abroad, employers will still share some part of the cost of worker benefits, but to a lesser degree than before.

**Figure 2.2 Effect of openness on labor market's reaction to shocks**



An increase in labor productivity shifts the labor demand curves ( $L_d$ ) up in both closed and open economies, but the increase in wages and employment in the open economy, represented by the shift in equilibrium from A to C, is greater than in the closed economy.

demand—caused, for instance, by a sudden increase or decrease in labor productivity—now result in much greater volatility in both earnings and hours worked. This is important insofar as it can account directly for some of the widening wage inequality since the late 1970s, as well as for the increase in inequality *within* skill groups.

Let's consider the supply-demand framework again (figure 2.2). The initial labor-market equilibrium in an advanced industrial country is represented by point A. Two labor demand curves ( $L_d$ ) are shown for this equilibrium: one for a closed economy and one for an open economy. The open-economy labor demand curve is the flatter, more elastic one. Consider the consequences of an exogenous shock to labor demand that a change in goods prices or labor productivity might produce, for example. As drawn, the shock is a positive one, so both labor demand curves shift up by an equal amount. For the closed economy, the new equilibrium is at point B, and for the open economy it is at point C. That is, there is a larger increase in wages and employment in the open economy than there is in the closed economy. Conversely, had the productivity shock been a negative one, wages and employment would have fallen by a greater amount in the open economy. In short, openness magnifies the effects of shocks on the labor market.

**Table 2.1 Effect of increasing instability in earnings and employment, 1970-87**

	Permanent variance				Transitory variance			
	1970-78	1979-87	Change	Percent change	1970-78	1979-87	Change	Percent change
Real annual earnings								
Whole sample	0.201	0.284	0.083	41	0.104	0.148	0.044	42
Workers with fewer than 12 years of education	0.175	0.272	0.097	55	0.106	0.208	0.102	96
Log weekly wage	0.171	0.230	0.059	35	0.075	0.101	0.026	35
Log of weeks worked	0.014	0.020	0.006	43	0.046	0.063	0.017	37

A significant increase in volatility in labor-market conditions has been well documented in the United States, a fact that apparently also accounts for an important part of the rise in wage inequality. Table 2.1 reports the findings of a study by Gottschalk and Moffitt (1994). It shows that between one-third and one-half of the widening wage distribution from the 1970s to the 1980s can be attributed to the increase in the short-term variance in earnings (i.e., the increase in the average worker’s earnings variation from year to year). Between the two periods (1970-78 and 1979-87), the permanent variance of real annual earnings rose by 41 percent (from 0.20 to 0.28), reflecting the dispersion in permanent earnings. The transitory variance, which is roughly half as large as the permanent variance, rose by almost the same percentage amount (42 percent). This indicates that fully one-third of the widening of the measured earnings distribution has resulted from an increase in the instability of earnings. Moreover, the increase in short-term volatility nearly doubles for the least-skilled groups. (See the numbers for workers with less than 12 years of education, for whom demand has presumably become the most elastic.)

Recent evidence analyzed by Farber (1996) also suggests an increase in job insecurity in the 1990s compared with the 1980s. Farber found, for example, that the rate of job loss in 1991-93 (during a slack labor market but with a modest recovery in place) was even higher than that of the severe recession in the early 1980s.<sup>7</sup> The most dramatic increase in job loss rates appears for managers and workers in sales and administration,

7. The rate of job loss is defined, roughly, as the number of workers reporting to have lost at least one job during the period, divided by the number of workers in the relevant category.

although it is still craftspeople, operatives, and laborers who incur the highest rates overall. Hence there are indications that downsizing is having measurable consequences on the job security of middle managers.<sup>8</sup> Farber (1996, 33-34) summarizes his findings thus:

The results are fairly clear cut. Rates of job loss are up relative to the standard of the last decade. And the increase has not been uniform. Older and more educated workers, while continuing to have lower rates of job loss than younger and less educated workers, have seen their rates of job loss increase more than those of other groups. . . . The costs of job loss are dramatic. Displaced workers have a substantial probability of not being employed at the survey date after displacement (about 36 percent on average).

Neither Farber nor Gottschalk and Moffitt analyze the causes of these changes, and they do not link them to globalization in particular. But the facts they document are consistent with a picture of labor markets in which greater openness to trade interacting with short-term fluctuations in labor demand (or labor productivity) has resulted in greater inequalities across and within skill groups and greater instability in wages and employment. Hence it is plausible that the deep sense of insecurity felt by participants in today's labor market is related to the fact that globalization has made their services much more easily substitutable than before.

A simple numerical exercise suggests that plausible increases in the elasticity of demand for labor can indeed account for the observed volatility in US labor markets. As figure 2.2 indicates, the extent to which wages and employment become more volatile in response to labor-productivity shocks depends on the elasticity of labor supply as well as the increase in the elasticity of labor demand. Assume that individual industries face a labor supply elasticity of 1 in the short to medium run. Assume further that globalization has resulted in an increase in the elasticity of demand for labor (again at the industry level) from  $-0.5$  to  $-0.75$ —which is not a very large change and is in line with Slaughter's (1996) results. Then one can calculate that the standard deviation of wages and hours worked at the industry level would increase by 29 percent.<sup>9</sup> This number is commensurate with the figures in the last column of table 2.1 taken from Gottschalk and Moffitt 1994.

Bhagwati (1996, 14-16) has recently stressed another, related channel through which globalization may have aggravated job insecurity. He

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8. A 1996 report by the Council of Economic Advisers (1996) reaches the same conclusions as Farber does.

9. To see this, let  $k$  stand for an index of labor productivity,  $w$  for wages,  $l$  for hours worked (all expressed as percentage changes) and  $\epsilon$  and  $\sigma$  for the elasticities of labor demand and labor supply, respectively. Then  $w$  and  $l$  can be expressed as  $w = [\epsilon/(\sigma + \epsilon)] k$  and  $l = [\sigma/(\sigma + \epsilon)] k$ . Fixing  $\sigma$  at 1, the increase in the standard deviations of  $w$  and  $l$ , as  $\epsilon$  goes from 0.5 to 0.75, can be calculated using these formulas.

points out that global economic integration has made competition in product markets itself more volatile:

What we are facing now is a new and steadily encroaching reality where the nature of comparative advantage is becoming 'thin,' volatile, kaleidoscopic. . . . The margins of competitive advantage have . . . become thinner: a small shift in costs somewhere can now be deadly to your competitiveness.

This argument complements and augments the point that globalization makes the demand curve for labor more elastic (without any change in goods-market volatility). If, as Bhagwati argues, globalization also increases volatility in product markets, the effects are even larger.

Finally, increased churning in labor markets not only aggravates insecurity and inequality within skill categories, it can also exert downward pressure on the relative wages of less-educated workers as a whole and widen the skill premium. This is because less-educated workers fare considerably worse when they are displaced from a job than more educated workers. They experience both longer unemployment spells and larger wage cuts (relative to predisplacement earnings) upon reemployment. Farber (1996, 23) finds that "a [displaced] worker with a college education is about 18 percentage points more likely to be employed at the survey date than an otherwise-comparable worker with a high-school education." His results also suggest that a displaced high school dropout incurs a greater wage loss in his new job than a displaced college graduate (the differential is on the order of 7 percentage points—see Farber 1996, table 8). One reason for these disparities could be that job-specific skills constitute a larger component of earnings for less-educated workers than for college graduates (the latter having educational qualifications that are more transferable across firms or industries). Whatever the reason, the asymmetry in postdisplacement labor-market outcomes is an additional channel through which globalization, acting via increased labor-market turnover, can contribute to inequality.<sup>10</sup>

## Bargaining

As mentioned previously, the greater substitutability of labor also alters the nature of bargaining between workers and employers and contributes to the weakening of unions. This part of the picture has received surprisingly little attention in the academic literature on trade and wages, primarily because the focus has typically been on perfectly competitive settings in which wages are determined in spot markets.<sup>11</sup> There is by now consid-

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10. This point was first hypothesized by Bhagwati and Dehejia (1994, 56-57).

11. Borjas and Ramey (1994, 1995) are two significant exceptions. Richardson and Khripounova (1996) is a recent paper that has tackled this issue head on.

erable evidence, however, of the presence of labor rents in manufacturing industries (see in particular Katz and Summers 1989 and Blanchflower, Oswald, and Sanfey 1996). This evidence indicates that part of labor remuneration in these industries comes in the form of rent sharing with the employers.

To the extent that wages are determined in bargaining between workers and employers, an increase in the substitutability of workers results in a lower share of the enterprise surplus ending up with workers. A related consequence is that unions become weaker. The more substitutable workers in Akron are with those in Monterrey or Bombay, the less bargaining power they have and the lower the wage they will receive. In the words of Borjas and Ramey (1995, 1109), “[F]oreign competition in industries such as automobiles may have led to increased wage inequality not just by shifting workers from high wage sectors to low wage sectors, but also by changing the wage-setting behavior of the entire economy.”

One can debate the quantitative significance of the decline in bargaining power engendered by the differential global mobility of employers versus employees. But there can be little doubt that this has changed the nature of employment contracts in many tradeable goods industries, and through example or spillover, in many nontradeable ones as well.

“At the end of the 1970s,” according to Howell (1994), “firms began to fundamentally reassess their employment and wage-setting practices.” Mitchell (1985) has documented a striking transformation in union contracts starting in the early 1980s, a transformation that is not well accounted for by either the disinflation of those years or the above-average unemployment rate. The transformation was reflected in wage freezes and cuts, which first showed up in a narrow range of industries in 1981 and then spread to others. Management appeared to be increasingly taking a harder stance. Mitchell calls this a “norm shift” in wage determination. While not all the sectors in which this happened were those that came under increased exposure to trade in the early 1980s (e.g., construction and retail food stores), many were (e.g., metal manufacturing, machinery, lumber and paper, aerospace).

The pattern set in the early 1980s survived even though the trade deficit was eventually reduced. In the words of Howell (1994):

The undermining of traditional wage-setting institutions has lowered wages for those with the least bargaining power in the labor market, thus increasing inequality between skilled and unskilled workers. It may have also tended to increase wage inequality among workers in the same education, age, and gender group in the same industry. While the conventional view is that technological change has increased the demand for skill, leading to an increased premium for “unobserved skills” within these groups, it may be that the deinstitutionalization of the labor market has had a greater effect. Wage norms appear to have broken down within firms (as internal labor markets are opened up to external competition), within industries (as increasing competition causes differences among firms to become a more critical factor in wage outcomes), and among communities (as transporta-

tion and telecommunications facilitate the relocation of some, but not all, firms to lower wage areas).

Freeman (1996b) estimates that about one-fifth of the rise in US wage inequality is due to the decline in unionization. In Western Europe, where unions have remained stronger and the policy environment more supportive, the wages of the less skilled have not collapsed. But the price has been an increase in unemployment.

To many economists, the undermining of unions may not seem like such a bad thing, and this impression is plausibly strengthened by the European experience with unemployment. Indeed, from an efficiency standpoint, the weakening of unions, and of labor's bargaining abilities more generally, can have some benefits. But there is an often overlooked point here: these efficiency benefits are reaped only to the extent that employment *expands* in industries in which artificially high wages previously kept employment below efficient levels.<sup>12</sup> Has this actually happened? It is difficult to make a *prima facie* case that expanded trade has in fact led to more hiring in sectors such as steel and autos in the United States—sectors where monopsony wages were perhaps the most prevalent. And in the absence of such a case, the positive efficiency consequences of deunionization are in doubt. The first-order effect of trade appears to have been a redistribution of the enterprise surplus toward employers rather than the enlargement of that surplus.

In any case, bargaining is important not only in unionized industries. Even without unions and in the absence of other labor-market imperfections, the accumulation of job-specific skills creates a situation of bilateral monopoly between workers and employers *ex post*. In other words, job-specific skills are a form of rent, the distribution of which must be determined via bargaining within the enterprise. Anything that alters the relative bargaining power of the parties—such as globalization—can be expected to affect how the value of job-specific skills is distributed and how much accrues to the workers themselves. And to the extent that a larger share of low-skilled workers' remuneration derives from job-specific skills, as suggested previously, this will produce a differential effect that widens the wage gap between low-skilled and high-skilled workers.

## Recapitulation

There is an important distinction between the two effects discussed in this chapter: the inward shift of the demand for low-skilled labor and the

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12. This is because the efficiency costs of unions arise from there being too little employment in unionized industries, not from the high wages received by unionized workers per se—although of course the first is likely to be the consequence of the second. When unions are propped up by existing trade restrictions, this reduction in employment is actually not bad

increase in its elasticity. The first effect operates to any significant extent only when a country trades with another country that is considerably more abundant in low-skilled labor. That is why the empirical literature essentially focuses on trade with developing countries. The bulk of the advanced industrial countries' trade, which is with each other, has no bearing here because it takes place among countries with similar factor endowments and hence does not have any implications for relative demands for skilled and unskilled labor. Thus, this approach necessarily absolves the vast majority of trade from any responsibility for problems in the labor market.

But the focus on trade with (and immigration from) low-wage countries ignores the fact that less-skilled workers in Germany or France are also in competition with similar workers in the United Kingdom or the United States, markets with which the former countries are considerably more tightly integrated than they are with India or China. And while North-North trade may have little perceptible impact on the relative demand for unskilled labor, it certainly makes this demand more elastic in all countries involved. In other words, the increase in the elasticity of demand for labor is a much more general phenomenon. It is a direct consequence of international economic integration, regardless of economic structure and the identity of the trade partners.

Consider the following thought experiment. Suppose the rest of the world consisted of economies that are identical to the United States, both in terms of their relative factor endowments and levels of wealth. Since there would be no comparative advantage, economic integration would result in little trade (save, of course, for trade based on scale economies) and no change in relative prices. But the services of US workers would now become more easily substitutable with those of foreign workers, thanks to the possibilities of trade, migration, and capital outflows. Hence, while US labor would not face a reduction in demand (since the rest of the world is assumed to be no more labor-abundant than the United States), it would certainly be confronted with a demand that is more responsive to changes in its costs—that is, more elastic. This would affect workers' ability to bargain in the workplace, the incidence of nonwage costs workers must bear, and volatility of earnings and hours worked, as discussed above.

There are reasons, then, to think that the main impact of globalization on labor markets may well be the increase in the (actual or perceived) elasticity of demand for unskilled workers and not the reduction in this demand per se. That is, workers now find themselves in an environment in which they can be more easily “exchanged” for workers in other

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from an efficiency standpoint because it counteracts the production-side distortion of the trade restriction, the latter being too high output (and employment) in the import-competing industry.

countries. For those who lack the skills to make themselves hard to replace, the result is greater insecurity and a more precarious existence.

While this argument is intuitive and consistent with the sentiments expressed by those on the front lines of labor markets, we need more systematic evidence to back it up. The only econometric studies of which I am aware are the preliminary studies by Slaughter (1996) and Richardson and Khripounova (1996), which suggest that the elasticity of demand for labor in the United States has increased since the 1960s. The other available evidence is largely impressionistic and anecdotal. Hence it is difficult to be more specific about the quantitative magnitudes involved. How much has international economic integration raised the elasticities of demand for low-skilled labor in the relevant markets? And how much of the increase in inequality, across and within groups, and in the short-term variance in earnings and employment can this factor account for? Since an elasticity concerns changes at the margin, these questions cannot be simply answered by looking at volumes of trade and immigration. Nor is there any reason to believe that an increase in the elasticity of demand for labor would be necessarily associated with changes in the relative price of labor-intensive goods.

The answer, therefore, is that we cannot be certain about the quantitative magnitudes. The basic research on these questions has yet to be undertaken. What we can say with some confidence is that a fuller accounting of the labor-market consequences of globalization is likely to yield a picture that gives globalization a much more significant billing than it habitually receives when the question is focused narrowly on the rise in the *average* skill premium and solely on perfectly competitive markets.