

Lecture 11

Economics 181

International Trade

Wages, Inequality, and Globalization: Is Trade the Culprit?

I. Documenting the increase in wage inequality and stagnation in average wages:

- * Although average real wages in the US doubled between the end of World War II and the early 1970s, real compensation was only 6 percent higher in 1991 than in 1973.
- * Furthermore, real wages only increased for highly educated workers--since 1973, real wages for blue collar workers have actually fallen.
- * Between 1979 and 1990 the weekly earnings of college graduates increased 2 percent a year. Between 1979 and 1993, real wages of high school graduates fell by 20 percent.
- * This rise in inequality stands in sharp contrast to the dramatic fall in inequality during the 1940s and relative stability of wage inequality during the 1950s and 1960s.

Figures 2, 4, and 5, taken from a 2002 paper by David Card and John Dinardo in the Journal of Labor Economics, show the evolution of inequality for men, women, and the gap between college graduations and high school graduates. What does it show?

- (1) Increasing inequality in wages for all three categories
- (2) Big jump in inequality occurs in 1980s.
- (3) Leveling off of inequality in 1990s. So what happened in 1980s?

In Europe, although wage inequality increased less dramatically, the trend took the shape primarily of declining employment opportunities for the less skilled. In 1973 the rate of OECD-Europe unemployment was 2.9 percent. Between 1983 and 1991 it averaged 9.3 percent.

In many developing countries (including India, China, Mexico, etc), wage inequality also rose. This class will mostly focus on USA.

II. "Supply-side" explanations: Supply of skilled workers and immigration.

What if the supply of skilled workers fell, while the supply of unskilled workers rose? It turns out that this explanation is not valid:

A. Supply of skilled versus unskilled. Figure 6 shows that explanations based on labor supply cannot explain the observed increase in inequality. Labor supply of skilled workers rose relative to unskilled workers

B. Globalization of the local labor force: immigration. There was a huge increase in immigration during the 1980s, particularly immigration of less-skilled workers. In 1980, only 13 percent of workers with less than a high school education were foreign-born; by 1990, nearly 25 percent of those without a high school degree were immigrants.

Immigrants have affected the US wage structure in two distinct ways:

- (1) Since more recent immigrants are less skilled than earlier waves, this has affected the relative wage structure. Chart 1.
- (2) Immigrants also affect inequality by affecting the earnings of similarly skilled US workers (ie the competition may drive down wages of natives). What is the evidence on

the extent to which immigration drives down wages of less educated workers? The evidence is in fact contradictory:

(a) Some studies look at the local labor market effects of large influxes of migrants. These kinds of studies find very small effects.

One study examined what happened when in April 1980 Castro declared that Cuban nationals could freely leave from the port of Mariel. Almost no change in wages and employment in Miami.

(b) Testing for economy-wide effects: some other studies, examining the entire economy, do find a bigger effect--immigration may explain a third of the 10 percentage point decline in the wages of high school drop-outs during the 1980s. So it is likely that immigration has had some impact.

III. "Demand-side" explanations.

A. Trade flows

A. Why might trade flows provide the explanation?

Preliminary evidence would seem to indicate that trade could be the culprit in explaining increasing income inequality:

- Trade between low and high income countries increased in the 1980s and 1990s.
- Chart 2 shows that the wage differential between educated and uneducated workers has moved very much in line with the US trade deficit (as a percent of GDP).
- Ed Leamer argues that if you disaggregate the data enough, you see falling prices for unskilled-intensive goods—consistent with HO theorems linking trade with inequality.

B. Evidence against Globalization as the cause:

- If S-S effects were present in developing countries, we would expect inequality there to fall. It's not falling—suggesting a more general skill biased technical change.
- The HO framework says the following: a country which is relatively well endowed in skilled labor exports skilled-labor intensive goods, leading it to shift production towards skill-intensive sectors. This in turn raises the demand for skilled workers and lowers it for unskilled workers, leading to greater wage inequality. But the higher wages of skilled workers will in fact reduce the skilled to unskilled wage ratio across all industries. So if our HO theories do explain increasing wage inequality, we would expect the following:
 - (a) an increase in the employment share of skill-intensive industries.
 - (b) The ratio of skilled to unskilled employment declining across all industries.

BUT we do not see this. In particular, the ratio of skilled to unskilled employment is increasing across the board--despite the relative wage increase for skilled workers. This suggests that other factors--such as technological change--are responsible for the increasing wage gap.

- Paul Krugman and Robert Lawrence argue that:

Although the major share of trade is in manufactured goods, the trade balance in manufactures cannot explain the declining share of manufacturing in GDP. As Chart 3

indicates, the share of manufacturing in GDP has declined by 6.6 percentage points during that period, while the trade balance in manufactures only deteriorated by 1.6 percentage points of GDP during the same period. In other words, the smaller increase in the trade deficit couldn't drive the large fall in manufacturing employment.

So why the deterioration in manufacturing shares?

- Andrew Bernard (Tuck Business School) and others show small negative effects of import competition on US manufacturing employment. Imports from rich countries are associated with increases in US employment, but imports from poor countries are associated with a decline in US employment. So the negative effect is only there for some kinds of imports.
- How to reconcile these results with the dramatic rise in manufactured exports from Third World countries? Recall that the bulk of our trade is with other industrial countries, who have similar skill levels and wage rates. Imports from low-wage countries in 1990 accounted for only 2.8 percent of GDP. While wage rates in poorer countries are diverging from ours, wage rates in richer countries (our main trading partners) are converging, offsetting that impact.

D. Some anti-globalization responses:

- Technical change (which appears to be driving the increase in inequality) is caused by globalization.
- The reason why we see increased skill-intensity within sectors is not because the H-O framework is wrong but because we are examining the data at too high a level of aggregation.
- Further proof that globalization matters is that exporters are increasingly skill-intensive relative to non-exporters
- Even if the effect so far has been small, it will be bigger in the future as large labor-intensive countries join the world trading system.

BOTTOM LINE: although trade may play an important role, hard to prove how important it is. A lot of trade economists want to blame skill-biased technical change (SBTC). Card and diNardo are skeptical of this explanation because the big revolution in computers didn't occur until the late 1980s—after the huge increase in inequality. While the use of computers has dramatically increased in the 1990s, inequality has not. Here is my guess as to the various factors and how they contribute to increasing wage inequality:

Equalizing forces: increase in skilled relative to unskilled labor: - 40 percent

Unequalizing forces:

1. Trade	+ 15 percent
2. Immigration	+ 5 percent
3. Falling minimum wage (figure 23)	+ 30 percent
4. Deunionization	+ 5 percent
5. Skill-biased technical change (SBTC)	+ 15 percent

Net increase in inequality: + 30 percent

B Focus on Foreign Investment.

In part drawn by low labor costs and standards, multinational corporations (MNCs) are perceived to have relocated towards low-wage countries, contributing to the decline in blue collar wages at home. This international outsourcing could possibly explain both the decline in blue-collar wages and the fall in the ratio of blue to white collar workers.

IV. Policy Implications: What should be done?