

An hourglass graphic with a globe inside. The top bulb is dark blue, and the bottom bulb is light blue. The globe is centered in the narrow neck of the hourglass. The top bulb is filled with a dark blue color, and the bottom bulb is filled with a light blue color. The globe is centered in the narrow neck of the hourglass.

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*IS GLOBALIZATION THE FORCE BEHIND RECENT
POOR U.S. WAGE PERFORMANCE?: AN ANALYSIS*

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Abstract. Concurrent with a rising level of trade has been a significant slowdown in the pace of U.S. real wage growth and a substantial increase in wage inequality between skilled and less-skilled workers. Are the trade and wage trends linked? This report suggests that there is likely little causality running from a rising level of trade to poor domestic wage performance.

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Is Globalization the Force Behind Recent Poor U.S. Wage Performance?: An Analysis

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Summary

The last 25 years have seen a rapid expansion of trade in goods and assets and a general rise of economic interdependence across the world economy. Globalization is the popular term given to this ongoing process. Concurrent with this rising level of trade has been a significant slowdown in the pace of U.S. real wage growth and a substantial increase in wage inequality between skilled and less-skilled workers. Are the trade and wage trends linked? This report suggests that there is likely little causality running from a rising level of trade to poor domestic wage performance. Slow average wage growth is fully and credibly linked to poor productivity growth. A small share of rising wage inequality can be linked to trade, but the great bulk of this trend is probably more soundly rooted in a rising relative demand for skill, growing out of a changed pattern of technological change. This report will not be updated.

Introduction

The world economy in the postwar era has become increasingly “globalized,” with a vast expansion of trade in goods and assets and increased interdependence among trading nations. The pace of this process has clearly accelerated in the last twenty-five years. In the United States, the real volume of trade has grown twice as fast as real output bringing total trade (exports plus imports) from about 10% to over 27% of GDP in 1999. The United States has been much involved in this process of globalization, both as a leader securing successive rounds of trade liberalization and as an active participant in world trade.

As Adam Smith first made clear in 1776 and as reiterated by successive generations of economists since then, expansion of the level of trade and increased interdependence is an enriching process whereby an enlarged scope for realizing gains from trade raises economic efficiency and elevates the living standard of the average citizen. However, the free market, as the economist Joseph Schumpeter noted, is a force for “creative destruction.” Markets create wealth by continually reallocating resources to more efficient

uses that increase total well-being. But, that process of reallocation must also destroy inefficient uses of resources, deteriorating the economic circumstances of those whose job or business is eliminated or downgraded. A critical dimension of a successful market economy is how well it manages the achievement of higher efficiency *and* the adjustment of those hurt by these dynamic wealth-creating forces. Much popular and political debate about globalization, however, is heavily shaded with the image of rising international trade, particularly with low-wage developing economies, as a threat to the U.S. worker's economic well-being, a threat that such expansion may be more "destructive" than "creative."

There is a concern that expanding trade erodes the wages of American workers. Two recent trends in U.S. wage behavior, coincident with rising globalization, reinforce this suspicion. One, there has been a significant slowdown in the rate of advance of worker real wages. For example, between 1979 and 1999 real hourly compensation in the business sector had a relatively slow commutative increase of 18.3%. Two, there has been a marked increase in the inequality of the distribution of wages between skilled and less-skilled workers as measured by education levels. For example, the difference between the earnings of the college educated and those with a high school education was estimated in 1995 to have risen 18% between 1973 and 1994.¹

Trade can have strong effects, good and bad, on worker wages. The plight of the worker adversely affected by imports comes quickly to mind. On the other hand, workers in industries that export benefit from expanding trade. What is, perhaps, less well understood is that, because all workers are also consumers, they will benefit from the expanded market choices and lower product prices that trade provides. There is no necessary reason to assume that the overall effect of trade on workers is bad, but sound economic analysis also suggests that trade, even as it raises overall well-being, can also sharply alter the distribution of income among the several factors of production, including labor. The rest of this report attempts to evaluate critically whether an increasing level of trade and interdependence has played a role in the slow growth of the real wages of American workers and whether that process of globalization has made the distribution of worker wages more unequal.

Globalization and Average U.S. Wages

Effect of Relative Labor Abundance. We consider first whether an expanding level of trade is responsible for slow average real wage growth. Economic theory suggests that increased trade, while making the overall economy better off, can have strong effects on the distribution of income among factors of production. That theory points to the possibility that, if labor is relatively more abundant in the rest of the world than at home, an expansion of trade with the rest of the world could increase the "effective supply" of workers to the U.S. economy and reduce worker wages relative to rewards paid to other factors of production, most importantly capital. Since trade has clearly raised the real living standard of the overall economy, a general decline in the real wage of U.S. workers

¹ For further discussion of these trends see: Murphy, Kevin M. Changes in Wage Structure in the 1980s: How Can We Explain Them? Memo. University of Chicago, 1992. And also: U.S. Library of Congress. Congressional Research Service. Earnings Inequality in the 1980's and 1990's. CRS Report 97-142E by Gail McCallion.

would have to mean that labor's share of the economic pie has shrunk. This has not occurred, however. Labor's share of national income shows no significant trend, up or down, in the post-war era. The share of worker compensation in national income was 71.2% in 1973 and 71.1% in 1999.

Effect of the Terms of Trade. Real living standards depend not only on worker's share of domestic production, but also on their ability to exchange that output for foreign output (i.e., to realize gains from trade). That gain can be eroded if import prices rise faster than home prices, causing a fall in the real purchasing power of any given level (or share) of national income. The ratio of U.S. export prices to import prices — *the terms of trade* — is a measure of changes in the home economy's share of the gains from trade. It is plausible that expanding trade in a world economy, increasingly populated with technologically capable foreign producers, could have put downward pressure on U.S. export prices, reduced the *terms of trade*, and lowered the real wages of workers. The data do not support that scenario, however. The terms of trade did fall in the 1970s, but the commutative effect on real income was relatively small (less than a 2% decline over the decade). Through the 1980s and the 1990s, the U.S. terms of trade have slowly risen tending to increase worker real wages rather than erode them.²

Effect of the Trade Deficit. What about our persistent, large trade deficits over the last 16 years? Have they dampened worker wage growth? First, trade deficits are not a symptom of globalization and a rising level of trade. Rather, they are mainly a consequence of domestic macroeconomic behavior, such as a high rate of domestic investment relative to domestic saving, that have pushed domestic spending beyond domestic production requiring a net inflow of goods — a trade deficit — to sustain the excess domestic spending. As such these trade deficits do not represent a reduction in domestic output, nor a reduction in the demand for labor. Second, even if the trade deficits had reduced domestic output the size of those trade deficits and the potential scale of the effect on domestic labor markets is *far* too small to explain the deterioration of American real wages³.

Evidence from U.S. Multinationals. The recent behavior of U.S. multinational manufacturing companies gives some added confirmation that there has not been any sharp swing in the demand for labor away from domestic sources and toward foreign sources. It is estimated that U.S. multinational firms account for about half of all domestic manufacturing employment, making them good barometers of trends in the tradable goods sector, particularly if those trends are reflective of changing economic attractiveness of different countries as locations for production. If low-wage countries provide a significant cost advantage then we would expect to see a shift of employment from the domestic parent to these foreign affiliates. The data reveal, however, that multinational manufacturing employment has fallen *both* at home and abroad. Between 1977 and 1993, domestic employment in these firms fell about 21% (or about 2.6 million jobs), while employment in their plants in the rest of the world fell 17% (or about 830,000 jobs). If we

² See: U.S. Department of Commerce. Bureau of Economic Analysis. Survey of Current Business, various issues.

³ See: Lawrence, Robert, and Matthew Slaughter. International Trade and American Wages in the 1980's: Giant Sucking Sound or Small Hiccup? Brookings Papers on Economic Activity, vol. 2. Washington, Brookings Institution, 1993.

look at manufacturing affiliates in only developing countries, employment did increase about 5% (or about 85,000 jobs). But, if Mexico is excluded from this group, employment in affiliates in developing countries declined about 8% (or about 100,000 jobs). This implies that the multinational's U.S. workers have maintained their relative productivity. Consequently, there is no great out rush of U.S. multinational firms to increase employment in their low-wage affiliates at the expense of their domestic counterparts.⁴

Slow Productivity Growth. If a rising level of trade is not the culprit behind slight real wage growth, what is? We know that wages are basically a function of how productive workers are. High levels of productivity (output per worker) are associated with high wages, and rapid productivity growth is associated with rapid wage growth. Therefore, it is highly credible that the sharp slowdown in average productivity growth since the early 1970s in the United States is the cause of slow wage growth over the same period. Measures of U.S. worker compensation, appropriately deflated using a price index for the goods workers produce, gives a measure of *real compensation that* moves in step with the trend path for productivity over the last 25 years. In other words, workers share of the economic pie is not getting smaller, the pie is just not growing as fast as it once did. Underscoring the importance of productivity growth for wage growth, more rapid productivity advance evident since 1997 has been associated with more rapid growth of real compensation.⁵

Globalization and Wage Inequality

The Effect of Relative Supplies of Labor on Wage Inequality. Even if expanding international trade has not adversely affected the average level of wages, it can still have a distorting effect on the distribution of wages among workers. Labor is not a homogeneous resource, and market forces, including trade, can help one class of worker while hurting another. In recent years, wages have been steadily skewed in favor of high-skilled workers relative to low-skilled workers. It is conceptually possible that expanding trade, particularly with countries that have a relative abundance of low-skilled workers, will tend to increase the "effective supply" of low-skilled workers available to the U.S. economy, working to put downward pressure on the wages of low-skilled workers in America. Other forces, unrelated to trade could give the same outcome, however. For example, a strong general increase in the demand for skilled workers presumably growing out of the evolving pattern of final demand (increased demand for skill-intensive products) and the nature of technological change (the productive process) requires higher and higher inputs of "skill." What does the evidence show? This remains an area of some contention. Yet, the weight of evidence from most careful studies suggests that trade has been a minor factor contributing to rising wage inequality, causing perhaps 5% to 15% of the observed rise in wage inequality.⁶

⁴ For these data and a discussion of this phenomenon see: Lawrence, Robert, Z. Globalization and Trilateral Labor Markets. The Trilateral Commission, No. 49. P. 32.

⁵ See: Krugman and Lawrence, op. cit; and Lawrence, Robert Z. and Robert E. Litan Globophobia: The Wrong Debate Over Trade Policy. The Brookings Institution. Washington, 1998.

⁶ See: Cline, William R. Trade and Wage Inequality . Institute For International Economics, (continued...)

For international trade economists looking at this issue, a critical bit of evidence regarding trade's effect on the distribution of wages is the behavior of the *prices* at which goods trade. Foreign workers do not compete with home workers directly, but indirectly through the price of the goods they produce. If foreign low-wage workers provide an efficiency advantage over domestic workers, then that advantage must, through trade, manifest itself as a lower price of the foreign goods in the home market. Reduced profitability of the domestic industry that competes with the low-price import induces a reallocation of resources toward more profitable skill-intensive applications, and a general decrease in the demand for and wage of domestic low-skilled workers. In this chain of causation, the critical factor is not the volume of trade, but rather traded goods prices. This leaves us with the empirical question: Have the prices of import competing goods that use low-skilled workers intensively fallen relative to the price of goods that use high-skilled workers intensively? With appropriate deference to data problems, relative prices have not moved in a pattern consistent with the conjecture that trade has adversely affected low-skilled domestic workers.⁷ (In some cases there is evidence that this critical price ratio has moved in the opposite direction, in a direction consistent with trade helping low-skilled workers relative to high-skilled workers.)

Reasons for Trade's Limited Effect on Wage Inequality. That globalization has, so far, had a relatively minor effect on the level and distribution of U.S. worker wages is, perhaps, less surprising if one considers that, despite the sizable growth of trade with low-wage developing countries, such trade still remains a relatively minor component of total U.S. trade and particularly small when compared to the total size of the U.S. economy. Imports from countries where wages are less than 50% of U.S. wages was equal to 2.6% of GDP in 1990, up only slightly from 1.8% in 1960.⁸ By and large, for the United States, the great bulk of trade in manufactures is with other high-wage economies. It has been estimated that, in 1990, the trade-weighted average hourly manufacturing wage of U.S. trade partners was 88% of that in the United States, not a large enough difference to cause the observed change in wage inequality.⁹ Thus, trade's impact on the domestic labor market can also be expected to be small. (We should also note that the data on U.S. multinationals' employment changes in recent years, discussed in the previous section, are also consistent with the notion that there has been no differential shift of employment toward low-skilled foreign workers and away from low-skilled domestic workers).

An Upper Bound for Trade's Effect on Wage Inequality. Of course, as trade with developing countries grows, so might its contribution to wage inequality. Economic analysis suggests, however, that there may be an upper bound to this potential effect and

⁶ (...continued)

Washington, DC, 1997; and Borjas, George, and Richard B. Freeman; Lawrence F. Katz. How Much Do Immigration and Trade Affect Labor Market Outcomes? Brookings Papers on Economic Activity p. 1-90; Susan Collins, Trade and the American Worker, Brookings Institution, Washington, D.C., 1997; and Lawrence and Litan, op. cit.

⁷ See: Lawrence, Robert and Matthew Slaughter. Op.cit. P. 161-226; and Sachs, Jeffery and Howard Shatz. Trade and Jobs in U.S. Manufacturing. Brookings Papers on Economic Activity, vol. 1. Washington D.C. 1994. P. 1-84.

⁸ See: Lawrence and Litan, op. cit.

⁹ See: Economic Report of the President. February 1998, p. 243.

that it could be reached fairly quickly as the cost differences between home and foreign production widen. It is credible that a condition of *complete specialization* might be reached after only a relatively small price disadvantage appears. That is, the United States would find it most efficient to stop producing the import competing goods as increased specialization leads to trade in *noncompeting* sectors. If there is no domestic industry that uses low-skilled labor intensively in the production of tradeable goods, there can be no downward pressure on U.S. wages caused by trade with developing countries.¹⁰ It is also important to be mindful that trade can also set in motion other forces that can have a favorable effect on all domestic workers. For example, economies of scale can be more fully realized through expanding trade. Further, trade may heighten competition and raise efficiency. Such forces may be strong enough to allow all factors of production to see their real return rise.

What is Causing Wage Inequality? Many economists argue that “biased” technological change likely is the primary cause of rising U.S. wage inequality. Modern production techniques have generally raised the demand for skill in the labor market. In effect, “skill” is suspected of becoming more complementary to capital and “less-skill” more of a substitute for capital. Thus, the process of capital accumulation and technological change will tend to lower the wage of low-skilled labor.¹¹ Other minor causes might be immigration, deunionization, and falling real minimum wage. So far the evidence does not give a full picture of the nature and extent of this process.

Conclusion and Policy Implications

The analysis and evidence presented in this report suggest that globalization is unlikely to have played a substantial role in causing recent slow real wage growth and increased wage inequality in the U.S. economy. The implication for the congressional policymaker is that these negative wage trends might now be seen as less of an encumbrance to the pursuit of trade liberalization measures that offer significant economic benefit to the American and world economies. The argument made here is not that some domestic workers have not or will not be hurt by globalization. The complete story is that expanding trade creates and destroys jobs just as other market forces do (i.e., technological change, shifting consumer tastes). Trade will tend to create jobs in industries that are relatively more efficient and destroy jobs in industries that are relatively less efficient. This analysis suggests that the policy challenge, as with other disruptive market forces, is facilitating the quick and equitable adjustment of workers hurt by trade, such as compensation for lost earnings and incentives for retraining and relocation. The total gains are large enough to make everyone better off.

¹⁰ See: Krugman, Paul. Growing World Trade: Causes and Consequences. Brookings Papers on Economic Activity, No. 1, 1995.

¹¹ See: Griliches, Zvi. Capital-Skill Complementarity. Review of Economics and Statistics, no.465, 1967, P.51.