

**Trade and Wages: Choosing
among Alternative Explanations**

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This paper was prepared for the Federal Reserve Conference on Nov.3-4, 1994. It has been slightly revised in light of comments at the Conference by Robert Lawrence and Ed Leamer. Vivek Dehejia and Sam Pelzman have also provided useful suggestions.

The experience of decline in real wages of the unskilled workers (Lu) during the 1980s in the United States, and the increase instead in their unemployment in Europe (due to the comparative inflexibility of their labour markets vis-a-vis those of the United States)¹, has prompted a search for possible explanations. This search has become more acute with the evidence that the adverse trend for the unskilled has not been mitigated during the 1990s to date.

A favoured explanation, indeed the haunting fear, of the unions and of many policymakers is that international trade is a principal source of the pressures that translate into wage decline and/or unemployment of the unskilled. As Bhagwati and Dehejia (1994) put it: Is Marx Striking Again?

I have examined the question of trade explanations at great length in Bhagwati and Dehejia (1994) and the issue has been extensively treated in Bhagwati and Kesters (1994). My conclusion is that the trade explanation is exceptionally weak for the 1980s, that there are good theoretical and empirical reasons why trade did not cause the adverse impact one might fear, and that the case therefore for the overwhelming role of technical change (biased against the use of unskilled labour) in explaining the misfortune of the unskilled is very strong, indirectly and directly as well.

Here, I recapitulate and evaluate the main linkages that have been now advanced between trade and real wages, extending the argumentation beyond that in Bhagwati and Dehejia (1994), originally finished in mid-1993, in light of further research that has emerged since then. I also take the opportunity to speculate about the future, instead of confining myself to only the 1980s experience and its explanation.

¹ Note that this contrast between the US and Europe is just that, and is supposed to explain only the differential impact of technical change, trade etc. on wages in one country and on unemployment in the other. This labour-market explanation is almost a cliché by now, having been propounded by virtually every economist who has spoken on the issue in the last several years. Among the more recent writings on the subject are popular pieces by myself, Krugman and many others.

1. Prices of Unskilled-Labour(Lu)-intensive Goods have fallen and caused the Real Wages of Lu to fall, in turn: Economywide, North-South Explanation

Most economists' favorite explanation has been that trade with the Lu-abundant South (i.e. poor countries), as a result of their entry into world markets and the freeing of trade barriers against them, has led to the fall in the real wages of Lu.

This argument requires, in general equilibrium, that the prices of the goods using Lu should have fallen too: as I noted in 1991 when encountering the Borjas-Freeman-Katz paper (1991) which asserted that trade was the cause of the decline in real wages without mentioning, leave aside examining, the behavior of goods prices (see the detailed critique in Bhagwati, 1991a and 1991b, and subsequently in Bhagwati and Dehejia, 1994 and Bhagwati, 1994). I conjectured (1991a) that the goods prices had actually gone the other way from that required by the assertion.

The detailed empirical investigation by Lawrence and Slaughter (1993), reported again by Lawrence in his paper for this Conference, confirms my conjecture for the US. The subsequent attempt by Sachs and Schatz (1994), in Brookings Papers, to overturn the Lawrence-Slaughter findings will not hold water. It relies on removing from the data set the prices of computers, a procedure that can be debated, and even then, the new data set yields a coefficient of the required sign that is both extremely small and statistically insignificant. Some newspaper accounts (e.g. the recent survey in The Economist of North-South issues and a recent Financial Times column by Sir Sam Brittan) have reported this "finding" without realizing that, while Noam Chomsky correctly argues that two negatives make a positive in every human language (while two positives do not make a negative in any), the two negatives of a small coefficient and a statistically insignificant one to boot, do not add up to a positive support for the assertion at issue!

Lawrence (this Conference and 1994) notes this and also reports that the goods price behavior in Germany and Japan, with and without computers, does not support the trade explanation either. Besides, the shifts in factor ratios also do not support the explanation for the US data.

In short, the necessary empirical evidence for the absolutely critical element

in this particular trade explanation is absent, at worst, and exceptionally weak, at best. The news is not good then for the proponents of the trade explanation along these North-South lines.

Besides, as noted in Bhagwati and Dehejia (1994), even if the goods prices were behaving as required, the conclusion that the result would be a decline in the real wages of Lu requires added assumptions familiar to the students of the Stolper-Samuelson theorem, many of which can be violated without difficulty in the real world. We cite, in particular, a computable-model-based study by Deardorff et. al. of Mexico after NAFTA which managed to show even a rise in real wages of Lu in the US by relaxing one particular assumption of the SS analysis: the assumption of perfect competition.

Three further comments are in order:

(1) Why have goods prices of labor-intensive goods not fallen during the 1980s? I suspect that it may have to do, at least as one major explanation in the case of traded goods, with the fact that the VERs on textiles, shoes etc., and the anti-dumping actions against several other products that broke out in the early 1980s, may have led to an export restraint that would translate into effective (countervailing) rise in c.i.f. landed prices, and hence in US domestic prices as well, of course. Ed Leamer has reminded us that the Asian competition in textiles and apparel broke out seriously towards the end of the 1970s, suggesting that the decline in real wages in the 1980s was a lagged response to that. But this explanation will not work: the swift response of the industry to the increased competition from Asia was precisely to tighten the Multi-fibre Agreement's restrictiveness to offset the potential price fall, leading to the anti-SS-explanation price behavior that Lawrence has observed for several countries. The restrictiveness of trade barriers is therefore likely to have increased as required. Such elasticity and also selectivity are in fact a characteristic of the "administered" protection as embodied in anti-dumping actions, VERs etc. and make them both a preferred instrument of protection by industry and also a serious hazard to free trade.

(2) Can we then be sanguine about future prospects for this trade

explanation? I believe that we can. Let me explain.

The typical worry is: what happens when China, India etc. come on board with the trade liberalization that is occurring in many countries? But this presupposes that the resulting trade expansion will be typically in the exchange of Lu-intensive for Lu-unintensive goods. But there is a great continuum of goods and considerable trade takes place in differentiated products among "similarly-endowed" countries, at all levels of per capita income. One could then accommodate huge increases in trade without the prices of Lu-intensive goods falling.

But just suppose that they will tend to do so. Then, there may well be an asymmetry with the 1980s. If the Uruguay Round is ratified, there will now be restraints on VERs --- only one will be allowed eventually per Contracting Party --- and the MFA will be phased out in 10 years. The ability to offset potential price competition from the South, in the way we did in the 1980s, may no longer be possible.

But even if prices did fall in the end for imported Lu-intensive goods in the next decade, recall that it is by no means inevitable that this will translate into a fall, rather than a rise, in the real wages of the unskilled in the OECD countries. Bhagwati and Dehejia(1994) have noted several reasons why, as noted by Stolper and Samuelson themselves, all factors of production can gain from the fall in import prices and the associated trade expansion that trade with the South may bring. And these reasons are not at all unrealistic, as I have already indicated. It is then simply a fallacy to think that the hand of Stolper-Samuelson theorem is an iron fist aimed at our unskilled workers.

(3) But whether one is, in my view, an unnecessary pessimist or an optimist on the issue, one policy option follows: we ought to support, not oppose, policy programs to limit the growth of population (and hence unskilled workers) in the South. The optimists will support such programs because they are surely desirable for the large countries such as India and China, and this is the considered view of these countries' policymakers, as evident from the Cairo Conference on population this summer. The pessimists should support them in our own interest as well. Let me explain why.

For, if immigration, which directly brings these aliens into our midst, cannot be totally controlled by us and borders often tend to get beyond control because

our political traditions prevent us from shooting at illegal immigrants coming across borders, and if trade is also feared to be simply an indirect way of letting in such alien labour, both phenomena then amounting to pressure on the wages of our unskilled, then the situation is fairly grim, especially if the decline of the ability to redistribute prevents us from compensating the decline in real wages of our unskilled. In that case, we can only hope for lower pressures from the unskilled abroad: and this implies our assistance in acceleration of their capital accumulation, on the one hand, and in effective control of their population growth, on the other.

The shift from the Bush administration's more complacent attitudes on population control, prompted largely by the religious right, to the Clinton administration's energetic support of effective population policies at Cairo, prompted partly by liberal views concerning women's rights, can then be explained also as a response (among several) to the fears of the adverse effect of trade with the South on the real wages of our unskilled.

2."Kaleidoscopic" Comparative Advantage and Higher Labour Turnover: An Alternative Trade Explanation:

Bhagwati and Dehejia suggest an alternative trade explanation for real wage decline. The explanation has essentially four parts:

- * Greater internationalization of markets -- rising trade-to-GNP ratios, greater role of transnational corporations in globalizing production --- , as also the diffusion of production knowhow (a la Baumol et.al.) within OECD countries and the increased integration of world capital markets (a la Jeff Frankel) have narrowed the margin of comparative advantage enjoyed by many industries in any major OECD country. There are therefore more footloose industries now than ever, leading to greater volatility in comparative advantage, i.e.more "knife-edge" and hence kaleidoscopic comparative advantage, between countries.

- * This will lead to higher labour turnover between industries and hence more frictional unemployment.

- * Increased labour turnover could flatten the growth profile of earnings due to less skill accumulation.

- * These three factors could also explain increasing wage differential, ceteris

paribus, if skilled workers have greater transferability of workplace-acquired skills than do unskilled workers.

This theory has to be investigated: students of mine at Columbia are doing this. E.g. Eugene Beaulieu is examining the hypothesis, using microeconomic data from the 1988-91 version of the Labour Market Activity Survey in Canada, that has a large and rich data base and detailed information on several personal characteristics of workers, and will enable him to trace the labour market experience of a sample of workers before and after CU FTA. He is also working with alternative measures of comparative advantage and changes therein.

I might add that there is suggestive evidence on elements 3 and 4 of the explanation above in labour studies, as noted in Bhagwati and Dehejia (1994), and also in Lisa Lynch's paper for this Conference.

3. Rents, Unionization et.al.

The above arguments are economywide trade explanations. But there are industry-specific trade explanations, of course, of what happens to industries impacted by import competition.

(i) Where these are competitive industries, clearly the earnings of the productive factors within them will be reduced at the outset. When the industry is wiped out, these earnings will go to zero, of course! The overall, final effect on real wages of these factors including the unskilled, however, cannot be determined without finding out the general-equilibrium implications of the parametric change, which will take into account, for instance, the absorption of the displaced factors elsewhere in the economy, which means going back to the economywide explanation.

(2) What does the presence of unions, and hence of rents to the unskilled in the unionized sectors, do for our argument? There are indeed models of several kinds of imperfect competition in factor markets in the general-equilibrium analysis of international trade which could be extended to address the question of the overall impact of changing goods prices on the real wages: but the answers can be quite unexpected. E.g. if unions maintain a wage differential between homogeneous insiders and outsiders, the conventional inferences such as that a fall in the relative price of the unionized-sector's good will lead to a fall in its

relative production, and therefore presumably a fall in the unionized factor intensively used in it, will not necessarily hold, undermining the SS-type argument (inferring factor reward changes from goods price changes).² To my knowledge, there is no analysis of the effects of price declines in unionized industries such as autos that satisfactorily addresses these deeper analytical issues that arise when the effects of unions are considered in an appropriate fashion.

(3) Then again, we know that, during the 1980s, the unionised sectors in the US, especially autos and steel, were politically powerful enough to shield themselves greatly through anti-dumping actions and VERs, OMAs etc. from the effects of foreign competition (which incidentally was overwhelmingly from the North, not the South). Given both the small percentage of the US unskilled labour force in unionized manufacturing sectors and the substantial cushioning of competition through trade restraints in any event, it is highly unlikely that the analysts can demonstrate (through this route) a significant role for trade in affecting real wages in the US during the 1980s.³

4. The Question of International Capital Mobility: Globalization and Real Wages

So far, I have considered only the question of a direct link between trade and real wages. But there are fears of an adverse impact on real wages of the unskilled that follow from fears arising from international capital mobility.

* Thus, a major worry of the unions is that the outflow of capital drives down real wages of Lu. However, during the 1980s, in the US, more DFI (direct foreign investment) came in than went out, both during the period and relative to 1950s and 1960s. Moreover, the US ran a current account deficit so that foreign savings came in, if that is the measure one wants to work with instead. The facts are therefore against that hypothesis.

* But again, if one uses a bargaining-type of framework, it might be said that the bargaining power of employers has increased vis-a-vis that of employees

² There is, in fact, a considerable literature on this subject, with contributions by Steve Magee, Murray Kemp, Jagdish Bhagwati and T.N.Srinivasan, Ronald Findlay, Ronald Jones etc. in the 1970s.

³ For a complementary discussion of rents, citing the broader literature on the subject which includes efficiency-wage arguments, see Bhagwati and Dehejia (1994).

because employers can increasingly say in a global economy that they will pack up bags and leave and therefore, for any given output, its distribution between Lu income and other income including profits may have shifted against Lu.

Perhaps the labour economists at the Conference can tell us whether there is persuasive evidence for such a bargaining model as a determinant of relative rewards between factors within any US industry and whether, for such industries, there is evidence of shift of location elsewhere having altered the distribution against Lu income.⁴ I am myself unaware of any systematic empirical or theoretical work on these questions to date.

At a time when total union membership is down to less than 15% of US private employment, however, I doubt if this explanation is likely to be important in any event, unless of course the decline in unionism is itself attributed in a significant measure (as I believe it cannot be) to the loss of bargaining power due to the threat of exit by firms to other countries.

⁴ The threat of exit may exist, of course, even if no exit has actually occurred in the industry.

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