

Discussion

1. Judith Sloan

Robert Lawrence's paper on the impact of international trade on the US labour market is divided into four parts. They relate to:

- the impact of trade on the average real wage of US workers;
- the impact of trade on the distribution of wages of US workers;
- the impact of the activities of US multinational companies on the US labour market; and
- finally, the role of labour standards in trade negotiations.

Of the four aspects, the paper is strongest in its analysis of the effects of trade on average wages and the distribution of wages.

Two of the most defining features of US labour market developments over the past several decades have been the lack of growth of average earnings and the growing dispersion of earnings. In terms of the latter, the real earnings of those at the lower end of the wage dispersion actually declined over the 1980s. While the phenomenon of increasing pay inequality has been characteristic of a number of developed economies (OECD 1993), the increase in pay dispersion has been greater in the US than elsewhere. (The UK also experienced a significant rise in pay dispersion, but in association with rising real earnings, including of those at the lower end of the pay distribution.) Not surprisingly, these two features of US labour market developments have given rise to concerns, which in turn, have prompted analysts to consider their explanations.

One of the hypothesised 'culprits' is the increasing internationalisation of the US economy, in particular, the surge of elaborately transformed manufactured imports. Lawrence's central conclusions are that trade can be ruled out as a major explanation of, first, the flat path of real earnings in the US and, second, the increased dispersion of earnings. The main reasons for his findings are the relatively small size of net trade flows and the nature of those trade flows. Of course, by ruling out trade as an explanator, we are left somewhat in the air as to the real explanation of these phenomena.

Moreover, given that the analysis is by nature backward looking, we cannot be sure that the prediction of the minimal impact of trade on the labour market will persist into the future. The counterfactual is of large dynamic Asian economies, namely China and India, becoming major players on the world trade scene (in contrast with the impact of the Asian 'Tigers' which are relatively small economies) and generating huge trade flows. In this case, and in the face of less than infinite and instantaneous flexibility in the US labour market, the impact of trade could conceivably be far greater than in the past.

At the same time, Lawrence makes the telling point that the US economy is characterised by free trade between its States, but is also one in which quite divergent labour practices, including the setting of wage minima, exist. The end result has not been the transfer of all economic activity to the lowest cost States. Rather the outcomes are the result of a complex set of factors, some of which relate to the productivity of the resident workforces.

The section dealing with the impact of the activities of US multinationals outside the US (outsourcing to low-cost countries for instance) is the least convincing part of the paper, in part, because the database would appear to be deficient in a number of respects. However, again the thrust of his conclusions appear to be basically sound – that, first, the overall magnitude of US multinational activities is not sufficient to have a significant impact on job opportunities of US workers and, second, that many of the activities of US multinational companies are not in low-cost countries.

The discussion of the role of labour standards in trade negotiations is discursive but persuasive. The main point is that treaties are fundamentally means of backdoor protection. The ‘negative externality’ argument is weak in respect of labour standards; it is marginally stronger in respect of environment standards.

What are the lessons for Australia arising from Lawrence’s paper? On the face of it, the important message is that trade should not be seen as a negative force generating adverse outcomes in the labour market. This, of course, needs to be qualified by the fact that the Australian economy is more open than the US economy, and by the distinctive nature of trade flows into and out of Australia. Another point of difference is the relative inflexibility of Australian labour market arrangements arising from the workings of the system of compulsory arbitration compared with the US labour market. The significance of this latter observation is that increasing trade flows may be associated with unfavourable labour market outcomes in Australia, but these may actually be due to inflexible labour market arrangements rather than the trade flows *per se*. The case is for freeing up the labour market, not staunching trade flows through government interventions.

Notwithstanding, the increasing dispersion of earnings and the deteriorating position of the low paid are legitimate concerns of policy. A slogan that is popular with policy makers in both the US and Australia is ‘high wage/high productivity’. Clearly, delivering on this slogan has obvious appeal. Instead of low-paid workers in developed economies competing head on with low-paid workers in developing economies, the idea is that by lifting the productivity of workers through education and training, developed economies can concentrate on high-value-added, knowledge-intensive activities. One of the problems with this proposition is that it provides no useful direction to policy makers as to what should actually be done in relation to training and education. Should education be vocationally oriented? Should greater on-the-job training be promoted? In what areas should training be undertaken by workers? How should education and training be funded? These are only some of the questions which, at this stage, have no definitive answers. The role of education and training in promoting greater dynamic efficiency in the labour markets of developed economies is an under-researched area which requires more attention in the future.

Overall, Lawrence’s paper should be seen as a useful contribution to the issue of the impact of trade on the labour market. Further research using Australian data would be valuable.

Reference

OECD (1993), *Employment Outlook*, Paris.

2. Kym Anderson

As we have come to expect, Robert Lawrence's paper is packed full of fresh ideas and insights drawn from a wide survey of empirical analysis and theory. The paper has a major and a minor part. The major part examines the extent to which trade in manufactures and capital is contributing to three trends in labour markets in the United States and other OECD countries: stagnation in the average real wage in the United States; increased dispersion in real wages of employed workers; and/or increased unemployment (which is a more extreme version of increased inequality). The minor part of the paper discusses the emergence of labour standards as an issue in trade negotiations and economic integration initiatives generally. This is connected with the major part of the paper insofar as differences in labour standards across countries, over and above wage differences, amplify the effect of trade on OECD labour markets (although not a lot is made of that connection in the paper).

Both parts of the paper are important for the world economy as a whole, and for Australia and other reforming small open economies in particular, not least because of the potential for protectionists to portray international trade in goods, services and capital as having undesirable labour-market effects on OECD economies.

Trade and Poor Labour-Market Performance

The stagnation in the average real wage in the United States during the past 20 years, in contrast to its rapid growth in many developing countries, is striking. Some people with a cursory understanding of the factor-price equalisation theorem from Heckscher-Ohlin trade theory are tempted to use it to draw the conclusion that the liberalisation of United States' trade is causing this convergence in wage rates.

Similarly with the increased dispersion in wage rates within several OECD countries, and the rise in unemployment of less-skilled workers in others (or the non-renewal of guest worker visas), the temptation again is to draw on Heckscher-Ohlin trade theory to explain these phenomena and thus blame trade liberalisation for the outcome. In this case it is the Stolper-Samuelson theorem that is used. By assuming just two factors, unskilled and skilled labour, that are mobile between industries, one could be drawn to the conclusion that the freeing up of trade between advanced and developing economies would cause the skill premium in wages to increase in the advanced economies with flexible labour markets. Where labour markets are more rigid and/or unskilled wage rates are not flexible downwards, an excess supply of unskilled workers would result unless that unemployment is exported by expelling guest workers.

Lawrence's paper provides a wealth of empirical data and analysis, admittedly mostly for the United States, to argue that trade in goods and services, and in capital via multinational corporations, could have contributed at most only a small part of the explanation for these features of OECD labour markets. He shows, for example, that the average real wage in the US would have grown at about the same rate as output per worker in the business sector had people chosen to consume what they produced. And since the US terms of trade trend has been upward rather than downward, he concludes that trade could not have contributed to the lack of growth of the average real wage.

With respect to the increased dispersion in real wages in several OECD countries, Lawrence points out again that Heckscher-Ohlin trade theory cannot provide an explanation because we should have seen an *increase* in the number of unskilled relative to skilled workers employed as the wage for unskilled relative to skilled work fell, whereas he observes for US manufacturing a *decline* in employment of unskilled relative to skilled workers. He interprets these data as suggesting there is a systematic bias in technical change in manufacturing toward saving unskilled labour.

I agree with Lawrence that it is much more likely to be domestic factors affecting labour supply and demand rather than trade *per se* that explain the poor performance of OECD labour markets. Why their average wages (and total-factor productivity) are growing slower than those of developing countries, and why their unemployment rates are so high, must be in part due to the rigidity government policies and trade unions have imposed on labour (and other) markets of advanced economies, of the sort emphasised by Olson (1982). As well, there is probably some underestimation in the real compensation data of the increased real welfare of workers that might be associated with rising labour standards.

Why the skill premium in wages is increasing, at the same time as the quantity of skilled relative to unskilled workers is rising in most countries, could have several explanations other than, or in addition to, the one offered in the paper, namely, an unskilled labour-saving bias in technical change. At least three other non-exclusive hypotheses are worth exploring.

One is simply that people are upgrading their skills in response to the decline in the relative wage of unskilled workers. Another hypothesis is that increased international specialisation is taking place *within* the 3-digit manufacturing industries examined in the paper. Indeed the last column of Table 2 suggests that is where much of the action is, leading to intra-industry trade specialisation in ever-more skill-intensive industries at home as the more labour-intensive processes relocate to countries with lower wage costs. A corollary to that would be faster employment growth in US multinationals in developing countries than in the parent corporation at home, as is observed to be the case in Section 4.

And a third possible explanation of why the skill premium in wages is increasing at the same time as the quantity of skilled relative to unskilled workers is rising parallels the suggested explanation by Schultz (1972) of why the ratio of wages to the rental return to natural resources is rising, despite the decline in available natural resources per worker. It is that the demand is growing sufficiently more rapidly for the factor that is becoming relatively more abundant (labour compared to natural resources in Schultz' case; skilled relative to unskilled labour in Lawrence's case) as to more than offset the effect on the factor price ratio of its relatively rapid supply expansion. The reason for the rapid increase in demand for human capital has to do with the increasing value of the ability to deal with disequilibria in a rapidly changing economy (Schultz 1975). Specifically, the demand for skills is growing rapidly because of the increasing complexity of the task of making productive use of new knowledge and lower-price sources of data and other information that research and computer technologies are providing.

All of this suggests a rich agenda for further research in which Lawrence is already engaged and to which others, both here in Australia and elsewhere, will be attracted by this stimulating paper. By way of illustration, let me mention just two areas.

First, what type of investment in human capital formation is needed? In particular, if the main reason for the skill premium in the wages structure is found to be the rapid growth in new knowledge and data, what type of training best enhances a worker's ability to adapt to, and make productive use of, the information explosion? My guess is a broad-based general education that enhances lateral thinking, rather than narrowly defined training that focuses on skills required for a specific task – which is exactly the opposite of what Australia's Department of Employment Education and Training has been promoting.

Second, what can be learnt from more precise theorising and empirical estimation? Certainly the factor-price equalisation and Stolper-Samuelson theorems need to be modified somewhat when the standard two-factor model is expanded to include sector-specific factors such as natural resources; to allow for international capital and other factor mobility; to include non-manufacturing sectors and especially non-tradeables; and to allow for economies of scale, differentiated products, intra-industry trade and imperfect competition. Doing all that may sound like a tall order, but in principle at least it is manageable these days with global CGE models such as the GTAP model at Purdue, which is based on the SALTER model developed in Australia (Hertel 1994; Jomini *et al.* 1991). That type of simulation model has the potential to give some quantitative indication of the relative contribution of trade to the labour market phenomena mentioned in the paper, and of the extent to which different industries are affected. Dynamic versions such as the G-CUBED model (McKibbin and Wilcoxon 1993) could offer even more insights. And were they to include endogenous growth features with investment in human capital enhancing workers' skill levels, it would be even easier to illustrate how the vast majority of people are better off as a result of trade liberalisation.

Trade Policy and Labour Standards

Finally, a brief comment on Section 5 to do with labour standards. The issue of entwining trade policy with labour standards is very similar to the entwining of trade policy and environmental standards, only with even less economic justification. In the case of the environment, there are physical international spillovers (e.g., global warming, ozone depletion) in addition to psychological spillovers (e.g., animal rights), whereas in the labour case there is only the latter (worker rights) which has any economic justification for action at the international level. And, again as with the environment (or human rights), trade sanctions are potentially worthy of consideration, as sticks or carrots for encouraging other countries to raise their standards to one's own, only in very limited circumstances. One is when there are no lower-cost ways for a country, or group of countries, to influence the policies of other countries (and even there the benefits may be insufficient to warrant the costs); the other is when there might otherwise be a 'race to the bottom' in terms of lowering (or delaying a rise in) national standards, to improve the competitive edge of domestic firms, and/or a successful call by trade unions (or environmental groups) for import duties against what is claimed to be social (or eco-) dumping.

This development is important for small opening economies like Australia's for at least three reasons. The first is that it could lead directly to reduced market access for Australian exports in the United States and other OECD countries. This is of little consequence in the case of labour standards since those are already high (too high?) here. Second, and much more importantly, is the risk it poses for exports of products from East Asia and elsewhere

which embody a considerable quantity of Australian primary products. And third, and perhaps most importantly, is the threat this development poses for the multilateral trading system, in two ways: by potentially overloading the agenda of the World Trade Organisation (WTO) in its infancy, and/or by encouraging small economies to seek refuge from anti-dumping duties via accession to the Western European or North American trading blocs (Anderson and Snape 1994).

As Lawrence warns, the solution does not necessarily lie in negotiating minimum standards, at least not in the WTO; a more appropriate place for that is the United Nations (e.g. the International Labour Office). Rather, more effort by researchers needs to be put into convincing the policy community (a) that trade growth, rather than being the cause of a social problem, can be part of the solution, and (b) that other, more efficient ways can be found to resolve such social problems. In the case of both the labour-market problems raised in Lawrence's paper and the environment, it is especially important to demonstrate sooner rather than later the inappropriateness of entwining them with trade policy, for otherwise the new-found but still fragile enthusiasm of developing and former centrally planned economies for unilaterally liberalising their trade regimes could be quickly reversed.

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3. General Discussion

The discussion focussed on the following two questions:

- What is the relationship between technical change and the demand for unskilled labour?
- What types of training policies promote both increased employment and wages for relatively unskilled workers?

Reflecting the complexity of the issue, there was no general agreement that technical change was driving an increase in the dispersion of wages. Amongst those who did assign an important role to technology, there was little agreement as to the nature of the technical change.

One participant suggested that rising wage inequality in the US can be explained by a reduction in the relative supply of skilled workers. It was argued that the average level of education attainment peaked in 1980. It was also suggested that the lack of control over health costs was increasing the wages paid to skilled workers in the health industry.

Other participants, while noting the appeal of the technology story, found it difficult to pin down exactly what form the technological change has taken. It was argued that there is little evidence that the degree of task complexity in most manufacturing jobs is higher in 1994 than it was in 1960. The technology story also needs to confront the Japanese experience, in which the relative wages of unskilled wages have tended to increase. One participant suggested that the Japanese experience can be explained in terms of an increase in the relative supply of skilled workers as the result of greater within-firm training of individual workers. It was also argued by some that for the technology explanation to be convincing, similar research to that reported in Lawrence's paper needed to be undertaken for a range of countries. In addition, it was felt that greater attention needs to be paid to technological developments in the service sector of the economy.

Those who saw a central role for technology in explaining changes in relative wages argued that, over the past decade, technological change, by changing the nature of jobs, has allowed people with skills to demonstrate those skills more easily. If a worker has above-average computer skills it is easier to demonstrate these superior skills than if one has above-average skill with a hammer. It was also suggested that the computer revolution had both reduced the number of unskilled jobs, and increased the demand for people who can adapt easily to new ways of doing things and who can manage the new technology. This has led to an increase in the relative and absolute wages of workers with these skills. As computers become more widespread, more and more workers will be able to manage the technology and the premium paid to workers with computer skills may decline.

As in the discussion of the previous paper, there was general agreement that increased training was essential in a world of ongoing technical change, but little consensus on what type of training is appropriate. Turning unskilled workers into skilled workers holds out the attractive possibility of increasing economic growth and narrowing wage dispersion. Some participants argued that management and leadership skills were critical in achieving this. Others argued that the emphasis should be on providing a generalist education, to allow workers to adjust to technical change more easily. A third view was that vocational education should be encouraged with particular emphasis on the apprenticeship system. This type of training came under attack from those who felt that in a world of rapidly changing technology, the emphasis should be on creating adaptable, innovative workers who are capable of working in a number of different industries. Given this variety of options, the question was asked whether the government's ability to pick winning training initiatives was any greater than the government's ability to pick winning industries.

Finally, the point was raised that even the best-designed training schemes may not deliver a smaller dispersion of wages. Perhaps the current nature of technological change

creates a limited number of ‘superstars’ who earn very high wages. The ‘winner-take-all’ example of software designers was given. The best software design may earn its inventor a large return, while the designer of the second-best software may earn almost nothing, despite being well trained and extremely competent. While increased training may make more superstars and increase economic growth, it is far from clear that it will lead to a narrower wage distribution.