Discussion

1.   John Quiggin

Throughout the OECD, the operations of labour markets in the 1970s and 1980s have produced outcomes unfavourable to labour in general and unskilled labour in particular. In the US, this has been reflected in declining real wages, with a slight increase in the unemployment rate. In other countries, it has been reflected in a slowdown in real wages growth and a severe increase in unemployment. At the same time, real wages have been rising in the newly industrialising countries (NICs).

An obvious way of trying to explain this outcome is that it reflects the process of factor-price equalisation predicted by the Heckscher-Ohlin model of international trade. However, this explanation immediately runs into the difficulty of accounting for the experience of the 1950s and 1960s. Wage inequalities between rich and poor market economies were just as great in this period (although the set of poor countries was different), yet real wages for unskilled workers rose both absolutely and relatively in the rich countries. In numerous other respects, the experience of the 1970s and 1980s does not fit the predictions of the Stolper-Samuelson theorem (on the assumption that the effective supply of unskilled labour from poor countries has increased).

This fact has led a number of commentators to reject the factor-price equalisation hypothesis and to focus instead on technological explanations. I see several difficulties here. First, assuming that technological trends (not necessarily levels) are similar in all countries, this implies that the equilibrium real wage for unskilled labour should be falling in all countries, unless there are unmeasured quality improvements in the NICs. Second, it is not obvious that the technological innovations of the 1970s and 1980s are more labour-saving than those of 1950s and 1960s. Indeed, it could easily be argued that the personal computer, the only noteworthy innovation of this period, is capital-saving. With a very small expenditure and a few weeks of training, almost any moderately literate person can command computing power that would have cost a large corporation millions of dollars in 1970.

More generally, it should be observed that the style of explanation here is based on the assumption that the Heckscher-Ohlin model adequately explains the economic experience of the entire postwar period (and that the factors and factor prices in that model correspond reasonably accurately to the measured variables we are seeking to explain). I would suggest an alternative hypothesis – that in this, and in many other respects, the boom commencing in 1940 and ending in 1973 was an anomalous period which neoclassical models have failed to explain in a manner consistent with the experience of the previous hundred years or the subsequent two decades.

If this hypothesis is accepted, the problem is reformulated. The issue now becomes the identification of the specific features of the economic and policy setup during the long boom that permitted labour to achieve outcomes much more favourable than a neoclassical analysis would suggest should have been possible. One obvious feature of the period was stringent restrictions on capital mobility. Even though Heckscher-Ohlin theory predicts factor-price equalisation with immobile capital, the shift to mobile capital greatly strengthens this prediction.

A more subtle manifestation of the same point was the fact that even the most multinational of corporations retained a strong national identity which has largely been eroded today. This made such corporations much more susceptible to political pressure in their home country than in other jurisdictions. The rent associated with the existence of the corporation was captured almost entirely by the home country and was, therefore, potentially available for redistribution to home-country workers.

Returning to more orthodox neoclassical explanations of the shift in wages, an obvious weakness of the whole debate is the focus on manufacturing. The small and shrinking share of manufacturing in total employment implies that, in the long run, developments in manufacturing can have only a marginal impact on equilibrium real wages. In seeking to analyse outcomes in terms of labour demand, the big missing issue in this debate is the role of the services sector and, in particular, of the publicly-funded community services sector.

An obvious structural break between the post-war boom and the subsequent slump has been the unwillingness of governments to continue financing the growth of community services employment, even though supply and demand considerations (for example, the high income elasticity of demand for these services and the very limited existence of potential for capital-labour substitution) suggest that this should be the main area of employment growth. I would suggest that the difficulties associated with financing the growth of this sector have depressed the demand for labour.

An interesting exception in this respect is the health care sector in the US. Unlike other OECD countries, the US health sector has expanded steadily as a proportion of GDP. Although the performance of this sector is highly unsatisfactory in many respects (most notably in terms of distribution, but also in terms of cost-efficiency), the demand side of the US health system is probably closer to a genuine reflection of consumer demand than that of other OECD countries. Moreover, the relatively good employment experience of the US may, in part, be due to the fact that the growth of the health care sector has not been artificially constrained.

Turning to the specifics of the Fahrer and Pease paper, I found relatively little to disagree with. I do, however, think it is inappropriate to partition employment losses in manufacturing in the way that has been done here. By treating productivity growth as generating a one-for-one reduction in employment, and all demand growth as exogenous, the deck has been stacked in favour of a productivity explanation. The critical point is that demand growth arises ultimately from productivity growth. In the presence of a uniform rate of productivity growth across the economy (and in the absence of income effects), the two would cancel out. Hence, in my view, it is appropriate to net domestic demand changes out of the effect imputed to productivity. What remains is the extent to which differential productivity growth in manufacturing reduces net domestic employment. If this is done, the conclusions drawn by Fahrer and Pease must be qualified, but only moderately. The net effect of productivity growth now accounts for about two-thirds of the gross job losses in manufacturing with the increased deficit in manufactures trade accounting for the rest.

For me, the most striking information in the paper was the existence of a declining trend in the output of elaborately transformed manufactures (ETM), and even more dramatically in ETM shares of total output and employment. Although I have long been

sceptical of the notion that manufactured exports would play a key role in our economic salvation, the ceaseless repetition of the statistics on ETM exports had led me to assume that this sector was at least expanding.

In fact, the observed pattern is exactly what should be expected on the basis of standard trade theory. In particular, the rapid expansion of ETM exports, the rapid recent growth in labour productivity and the depressed level of investment are all consistent with the expected consequences of a reduction in protection.

Consider a simple model of the ETM sector in which two goods are produced, one for export and the other for home consumption (obviously, as in all models of intra-industry trade, this requires a degree of product differentiation). A general reduction in tariffs can be expected to reduce the price of the home good and raise that of the export good. Because the equilibrium exchange rate falls, the price of the export ETM good rises along with that of all other exports. However, the export ETM sector gains a special benefit which other export industries do not share. The contraction of the home ETM sector releases factors specific to ETM production and therefore drives down the equilibrium price for ETM-specific factors. Hence, it would be expected that ETM exports should grow more rapidly than other exports but not rapidly enough to offset the effect of increased import penetration.

In more concrete terms, the closure of import-competing textile producers results in high rates of unemployment among textile workers and the ready availability of machinery at low prices. This benefits textile exporters by permitting them to drive harder bargains with their workers and to acquire capital goods at low cost.

Assuming that labour is more mobile in the short term than capital, it would also be expected that production methods in the ETM sector should become more capital-intensive in the short term, with a resulting increase in labour productivity. However, since the equilibrium capital stock has declined, we would expect low rates of investment.

2.   Peter Lloyd

This paper is directed towards one of the most important problems facing the Australian economy – namely (if I may rephrase the issues discussed), the effects of changes in the world economy, through the emergence of new suppliers and new relative prices and technological changes in the inputs required to produce traded commodities, on the demand for labour and employment. This is particularly important for Australia because it now has one of the most centralised of all wage systems among the OECD countries.

The authors do an admirable job of presenting the issues and alternative models that may explain changes in relative factor prices and employment in the Australian economy over the past decade or so. I agree with their principal conclusions and, in particular, with their conclusion that the opening of the Australian economy to international trade has put competitive pressure on the manufacturing industries, but that it has not been the major cause of the reduced employment in activities in this sector. However, I do have a few suggestions for the analysis and further research.

There are a few details that need to be re-examined. One of these is the role of outworkers in the clothing and textile industry. The statistics of employment in these industries do *not* include these workers and, as there is no significant number of comparable workers in other manufacturing industries, this omission distorts the analysis of these industries. This omission has several effects. As the wages of these workers are fixed by contract, there may be some substitution of them for other employed workers when the relative wages of the latter are maintained. The changes in employment in the industries may be overstated if there has been a substitution of outworkers for employed workers in these industries, or understated if the demand for these workers has also fallen.

As a measure of international integration, the average effective rate of assistance in manufacturing industries is of little value. First, as the paper acknowledges, there has been wide variation within the sector. More importantly, what matters for an industry is not the average effective rate, but this rate relative to the rates for all other industries in the manufacturing, rural and mining and service sectors. Of course, in Australia, the story over this period is one of changes in all rates but a general downward drift of the rates in manufacturing industries, especially the traditional high-protection industries of clothing textile and footwear and transport relative to other industries. This has been accompanied by a reduction in the dispersion of rates in the manufacturing sector which may be just as important as the inter-sectoral changes if intra-sectoral substitution in production is higher than inter-sectoral substitution.

The Stolper-Samuelson effect is of limited usefulness, in its present form at least, despite its enormous historical importance in the profession and in the Australian debate. The primary problem is that the Stolper-Samuelson theorem is a theorem that holds without significant modification only in a world with two factors and two commodities; it is a 2x2 theorem. If there are more than two factors in particular, the effects of changes in exogenous world prices on domestic real factor prices may be very different.

As a standard counter-example, consider the Jones 3x2 specific factor model or its generalisation, the 3x2 'extreme factor' model. We might designate the three factors 'skilled' and 'unskilled' labour and capital. What now happens to the real wages of skilled and unskilled labour when the price of the imported good falls depends on which factor is not specific or, more generally, which factor has the labour/capital ratio that is in the middle of the three ratios. Is it skilled or unskilled labour that is used intensively in the production of the imported good? If it is skilled labour and unskilled labour is the mobile or middle factor, the real wage of skilled labour falls with the fall in the price of the imported good, but the nominal wage of unskilled labour must rise to transfer resources to the other industry and its real wage may rise or fall depending upon the elasticity of demand for unskilled labour and the share of the budget devoted to the imported good.

What we have in reality is many kinds of labour and capital, and some labour and some capital having the characteristic of a specific factor. In this more realistic world, a fall in the price of imported goods will lower the returns to the factors which are specific in the production of these goods and raise the returns of some (but not all) of the non-specific factors. We need to track the changes in the real wages of skilled and unskilled labourers, but the ratio of the wages of business professionals/machine operators that is used here

does not capture the skills differential for award non-professional workers.

This, and all of the other models considered, ignores too the effects of reduced import barriers on the diversity of goods available to consumers (and producers). As recent models with imperfect competition have shown, this may be an important determinant of the changes in real incomes. Note too that the price indices used in Australia almost certainly overstate the increase in consumer prices because they have little allowance for new products and product improvements and increases in consumer choice. Consequently, they understate the rate of growth of real incomes.

I applaud the decomposition analysis in Section 5. This is instructive and I agree with the conclusion that technological change rather than import competition is the main source of the fall in the demand for labour in manufacturing industries in Australia. This conclusion is not, however, new. I cannot resist here quoting myself. In a study of the change of employment in the clothing and textile industry of Australia which used the same decomposition, I concluded that 'For employment, the long-term problem is one of the substitution of capital for labour, rather than the substitution of imported for domestic supplies' (Lloyd 1985, p. 513). Moreover, one must be very cautious of interpreting the results as cause and effect because, as the authors note, the changes are interdependent; for example, an increase in the import share because of a fall in the price of imports might cause an increase in consumption and/or an increase in labour productivity, both of which would mean that the statistical contribution of rising imports would overstate the effects of these imports on employment in the decomposition.

All together the results of this paper show that we as a nation have to think more carefully about the consequences of the rigidities in our labour markets which stem from the retention of a highly centralised system. I find the Krugman (1993) technological change model appealing. There is a choice between relative factor price rigidity and its associated maintenance of the real incomes of unskilled labour but greater unemployment on the one hand, and greater wage flexibility with less unemployment but greater income inequality through changes in factor prices, on the other. This is a stark choice. However, one should note that the comparison in terms of an index of the inequality of incomes is more complicated. The supposed increase in inequality under the US-type system with a growth in 'working poor' may occur in an Australia with greater wage flexibility; the outcome in terms of inequalities will depend on the elasticities of demand for labour, the comparative unemployment benefit level and other factors. If the change in income distribution is of concern, it would seem better to counter this through expenditure transfers and tax rates rather than changes in awards that lead to inefficient production.

I want to conclude with a brief list of other things that need to be considered.

- Wage flexibility is much more than the flexibility of wage rates. It includes the ability to adjust margins for skills, shift work and overtime and other working conditions such as the ability of producers to introduce shifts or changes in working hours. In these respects I suspect the Australian system is extremely rigid. The New Zealand experiment of the *Employments Contract Act* of 1991 may provide an illuminating contrast as the benefits of greater labour market reform work themselves out. The New Zealand economy was, along with that of Australia, one in which a highly centralised system had persisted for about 100 hundred years. It is currently outperforming the Australian economy in terms of real output growth, price

stability and falling unemployment but a longer period of observation is needed.

- The failure to introduce far reaching labour market reforms in Australia raises a number of issues about the sequencing of reforms. We might have got more benefit from the reforms of the capital and foreign exchange and goods markets from 1983 onwards if we had had labour market flexibility from the beginning, rather than a strategy of reforming the labour market last.

- In a net immigration country such as Australia we need to consider the effects of sustained immigration on the supplies of, and demand for, labour of various kinds. Immigrant labour is still somewhat skewed to the unskilled end of the range, especially when one considers the jobs in which migrants find work rather than the skills they declare they have, and it varies greatly among categories of immigrants.

- The objectives of increasing worker real incomes and reducing unemployment need to be considered in a broader context which looks at growth in the economy in general as well as changes in international goods markets and labour markets. We can become obsessed with these issues. In my view, there is little hope of reducing unemployment dramatically unless we accelerate the rate of growth of real output of the economy to, say, 5 or 6 per cent plus on a long-term or underlying rate basis, not just for a few quarters as we go through the recovery phase of the cycle. This means we have to look at policies which bear on the accumulation of skills, R&D, boost the savings rate of the household and corporate and government sectors, and improve the selection of immigrants, etc.

References

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3.   General Discussion

The discussion focussed on the following two questions:

- Is the Stolper-Samuelson model appropriate for analysing the impact of international trade on the labour market?

- What are the causes and implications of wage dispersion?

Many participants noted the short-comings of the Stolper-Samuelson (SS) model for analysing the effect of trade on the relative wages of skilled versus unskilled workers, especially when much trade is intra-industry trade. The model predicts that as tariffs are lowered on imports from low-wage countries, the prices of imports from those countries will decline, and that this decline in price will lead to a fall in the wages paid to low-skilled domestic workers. The trouble with this old and venerable explanation is that substantial falls in the prices of imports from low-wage countries appear to have taken place only for a couple of goods. Many participants argued that these falls were insufficient, in and

of themselves, to have a major impact on wages and employment. Immigration and the movement of capital across borders were also thought to complicate the SS explanation.

One participant suggested that the example of Hong Kong was inconsistent with the Stolper-Samuelson explanation. Since Hong Kong has opened up to China, which has a huge supply of unskilled labour, real wages for *both* skilled and unskilled workers in Hong Kong have risen and full-employment has been maintained.

This example suggests that there are more important mechanisms through which international trade affects the labour market than through the standard Stolper-Samuelson effects. Here, discussion focussed on two possible channels. The first was productivity effects. By stimulating productivity improvements and increased growth, international trade may be able to generate higher living standards for all workers, although it may cause unemployment in the short run. Factors driving productivity are, however, generally difficult to explain. Moreover since trade reform is usually closely related with reform of the domestic economy, it is difficult to assess exactly what role trade is playing in improving productivity. The second channel discussed operates through an increase in market discipline on firms as a result of an increase in the number of competitors. If trade liberalisation results in an increased variety of a certain type of good being imported, this increased variety will cause domestic firms to lower their prices, even if import prices do not fall. This fall in domestic margins may well have employment implications.

Despite these alternative explanations and the perceived weaknesses of the Stolper-Samuelson theory, research by Williamson indicated that over the past century there has been a tendency for the wages of low-skilled workers to converge across countries. This convergence has been extremely slow in most economies and has not ignited widespread political problems as it has occurred against the background of rapidly increasing real wages. As real wage growth has slowed, this issue of convergence has attracted greater attention.

In terms of wage dispersion, a number of participants argued that the distribution of wages in Australia was relatively compressed. An implication of this is that skilled labour in Australia is relatively cheap and that this should give Australia a competitive advantage in activities that use skilled labour intensively. However, some participants felt that Australia's wage distribution was not unusual by international standards. Others thought that while the wage distribution was relatively wide, income distribution was relatively compressed as the result of government tax and transfer payments. It was also suggested that the Japanese bonus system was a viable alternative to the 'US system' for achieving the necessary flexibility of wages.

There was general acceptance of the idea that there are powerful forces at work making for a more unequal distribution of wages. In addition to the forces of technical change and trade, immigration was mentioned. Given these forces, some participants argued that impediments to the efficient operation of the labour market were condemning groups of workers to long-term unemployment. These impediments were being exacerbated by insufficient spending on infrastructure and excessive compliance costs on small business. While improvements were being made in some areas, other countries were also tackling the competitiveness issues, in some cases, more successfully than in

Australia. Not all participants thought that increased wage dispersion would help reduce unemployment. One participant argued that the countries with the lowest rates of youth unemployment, were not those with the lowest relative wage for young workers, but rather those with the most developed apprenticeship schemes.

On a more technical front, one participant queried the definition of a 'low-wage' country used in the paper. It was suggested that countries should be re-classified as the level of wages increases. There were also a number of calls for similar analysis to that in the paper to be conducted on the service sector of the economy.