

Discussion

1. John Quiggin

Peter Forsyth has presented an excellent summary of the main developments in microeconomic reform and the costs and benefits of the process. In these comments, I want to focus on one aspect of the costs identified in Forsyth's paper – the increase in work intensity associated with microeconomic reform.

My comments may be summarised by an inversion of Solow's famous comment that the information technology productivity miracle can be seen everywhere but in the productivity statistics. By contrast, the Australian productivity miracle can be seen *only* in the productivity statistics. The lesson of everyday life is that people are running harder to stay in the same place. More formally, an increase in the intensity of work has only partially offset a continued decline in the underlying rate of productivity growth.

Bean (this volume) observes the similarities between the Australian productivity 'miracle' of the 1990s and the Thatcher 'miracle' of the 1980s. It is therefore useful to refer to the literature on bargaining and work effort which arose in an attempt to explain rapid productivity growth in the United Kingdom during the 1980s. In this literature, the underlying technology was assumed unchanged, so that output per worker could increase only through increases in work effort. The analysis was motivated by the observation of 'concession bargaining', in which wage increases were granted only in return for abolition of work practices that constrained work effort. The key theoretical prediction of the literature was that a reduction in union bargaining power or in union control over work effort would result in a reduction in the wage per unit of effort. Under plausible conditions, the effort per hour demanded would increase sufficiently that the hourly wage would rise.

Australian experience in the 1990s fits these models perfectly. Most obviously, enterprise bargaining in Australia closely matches the pattern of 'concession bargaining' observed in the United Kingdom. As noted by the Australian Centre for Industrial Relations Research and Training (ACIRRT 1999), the great majority of enterprise bargaining agreements have involved changes in conditions designed to increase the flexibility of working hours. Although the term 'flexibility' is appealing, flexibility is, in large measure, a zero-sum game. Increased flexibility for employers reduces the capacity of employees to manage their own lives. Conversely, increased flexibility for employees, in the form of 'family-friendly' conditions creates difficulties for managers seeking to maximise output per worker. The ACIRRT data show that the flexibility generated by the enterprise bargaining process has been flexibility for employers, and that rhetoric about family-friendly workplaces has not been translated into reality.

In addition, most of the major policies of microeconomic reform have tended to increase work intensity. Reform in the public sector has typically involved labour shedding on a significant scale. The expansion of competitive tendering and

contracting has opened up work previously undertaken within organisations to outside competition. The resulting increase in work intensity has been widely recognised. For example, the Industry Commission (1996) conceded that as much as 10 percentage points of an estimated 20 per cent reduction in costs, associated with competitive tendering and contracting, could arise from reductions in the effective wage per unit of effort. Product market reforms have also been seen as increasing work intensity through a ‘cold shower effect’.

Even given the well-known scepticism of economists in relation to self-reports and anecdotal evidence, it would be absurd to reject the universal perception that the intensity of work has increased over the period of microeconomic reform. The critical question is how the increase in work intensity should be measured, and how measures of productivity growth should be adjusted to take account of increased work intensity. The central contention of this comment is that the increase in work intensity is equivalent to an unmeasured increase in working hours of at least 10 per cent – more than enough to wipe out the productivity ‘miracle’ apparent in the official statistics.

Work intensity can be increased on a number of margins. First, the number of officially measured hours at work can be increased. The Australian Bureau of Statistics (ABS) measure of working hours per full-time worker shows an increase from 39 hours per week to 41 hours per week, an increase of around 5 per cent. (The ABS measures are derived from employee reports in the Labour Force Survey and are therefore more satisfactory than the corresponding US measures produced by the Bureau of Labour Statistics.)

The second margin by which work intensity can be raised is an unmeasured increase in working hours. It is unclear precisely how respondents interpret the ABS question about the number of hours worked, but it seems unlikely that they would take account of breaks and ‘dead time’ on the job. Hence an unmeasured increase in hours can arise from reductions in tea and lunch breaks, replacement of continuous shifts with split shifts, pressure to forgo leave entitlements and so on. Detailed time use studies could be used to measure work time more accurately. Some work along these lines has been undertaken, but longer-term panel studies are needed. In the absence of such evidence, I suggest that the unmeasured increase in working time is around 5 per cent. This is equivalent to the elimination of two 15-minute breaks per day.

The third margin, and the most difficult to measure, is increases in the pace of work. Such increases have been a standard feature of ‘scientific’ management of blue-collar work since the ‘time-and-motion’ studies of the early 20th century that gave rise to Taylorism in the United States and the parallel movement of Stakhanovism in the Soviet Union. More recently, such management has been extended to white collar workers and, particularly, to predominantly female ‘pink collar’ workers, such as those working in call centres.

In modern terms, the basic approach of Taylorism was to define a best practice benchmark under ideal conditions, then demand that all workers achieve the benchmark under conditions that are not necessarily ideal. In large measure, microeconomic reform has followed the same procedure.

It is not surprising then, that most employees report increases in work intensity and stress. The Australian Workplace Industrial Relations Survey undertaken in 1995 found that a majority of employees reported increases in stress, work effort and the pace of work over the previous year, while less than 10 per cent reported reductions in any of these variables (Morehead *et al* 1997). These self-reports could be checked in a number of ways. First, the methods of time and motion themselves could be used to test whether the pace of work is increasing. Second, a more detailed analysis of enterprise bargaining agreements and work norms might give evidence of changes in the pace of work.

The evidence of increasing work intensity resolves a number of puzzles that arise from the standard interpretation of the 1990s experience as an increase in both labour productivity and total factor productivity. The first puzzle is why real wages have increased so much in the 1990s, by contrast with the experience of the 1980s and the late 1970s. The average rate of unemployment during the 1990s was over 8 per cent, the highest since World War II. The proportion of workers belonging to trade unions declined steadily and labour market reforms reduced the bargaining power of workers. In these circumstances, it would have been expected that wages would decline and employment would increase fairly rapidly, as occurred in New Zealand after the passage of the *Employment Contracts Act* in 1991.

Once the increase in work intensity is taken into account, it can be seen that this is exactly what happened. The increase in earnings for full-time workers (between 5 and 10 per cent) was smaller than the increase in measured and unmeasured work effort. Hence, from the perspective of employers, the cost of work effort declined, and the amount of effort employed increased. Assuming that effort per measured hour of work has increased by 10 per cent, the total input of labour effort has probably increased during the 1990s at a rate similar to that of the 1980s.

The second puzzle is why the aggregate rate of GDP growth has been no larger in the 1990s than in the 1980s. The average rate of GDP growth has been about 3½ per cent in both decades. Per capita growth was higher in the 1990s, but the rate of population growth should not have been an important constraint on growth in view of the sustained high unemployment that characterised the entire decade.

A sustained increase in multifactor productivity should imply an increase in the demand for labour and capital. In the presence of high unemployment and free international capital markets there is an excess supply of both inputs that could be drawn upon. If the increase in productivity is accompanied by an increase in real wages, it should call forth an increase in labour supply. Hence, in the absence of restrictive macroeconomic policy, it would be expected that the rate of input growth would increase when productivity growth increased, whereas by standard measures, the rate of input growth has fallen.

The absence of either a supply response or a demand response to the increase in measured productivity is consistent with the hypothesis of increased work effort. There is mixed evidence on whether the move towards bargains involving higher wages and higher effort accords with the preferences of those who have remained in the full-time labour force. However, it seems likely that the slowdown in female

participation and the withdrawal of many older workers from the labour force is due, at least in part, to unwillingness or inability to supply the effort levels now required from full-time employees. On the demand side, the hypothesis of increased work effort implies that the demand for effort has increased in response to a decline in the real cost of effort.

The final puzzle, referred to by a number of speakers at this conference, is the conjunction between an economic performance widely referred to as ‘miraculous’ and the high levels of popular discontent and rejection of reform. Most explanations have been based on some form of illusion or irrationality. It has been argued that reports of increased work intensity are the product of interviewer bias, that the perception of declining returns to effort is driven by money illusion, and that general opposition to microeconomic reform results from asymmetry in the evaluation of costs and benefits. The alternative, and simpler, explanation is that members of the general public correctly perceive a decline in real wages per unit of effort and the absence of positive net benefits from reform.

References

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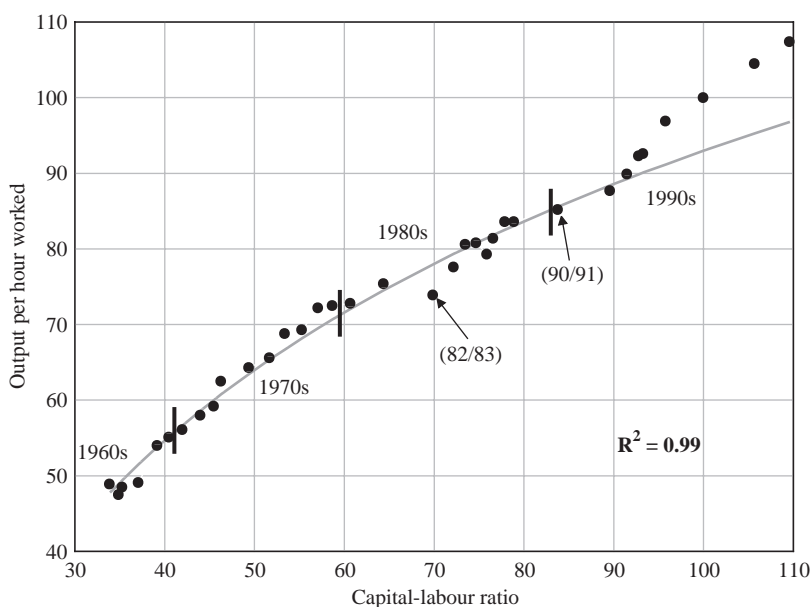
2. Richard Snape

This paper presents an excellent survey of Australia’s microeconomic reforms and of the sources of possible gains and costs from these reforms. I first supplement the information on productivity growth with some recent data prepared within the Productivity Commission.

Figure 1 shows output per hour plotted against the capital-labour ratio for the Australian economy as a whole. Improvements in multifactor productivity (MFP) appear as vertical shifts upward in observations. A trend line for the data up to 1990/91 is fitted. The figure shows the strong upwards deviation of the 1990s data from the trend due to faster MFP growth.

In Figure 2 the growth in output for the market sector of the economy is apportioned into that which can be attributed to increased factor inputs and that attributable to MFP growth. It shows the increase in MFP in the 1990s to be greater than in any of the other periods. The increase in factor inputs, on the other hand, is in line with the average of the other periods. (The division into time periods is

Figure 1: Australia's Growth Path, 1964/65 to 1998/99
Index, 1996/97 = 100



Note: An exponential trend line is fitted for observations up to 1990/91 (end of second development phase) and projected from there. $R^2 = 0.99$ for the fitted line to 1990/91.

Source: Parham (2000)

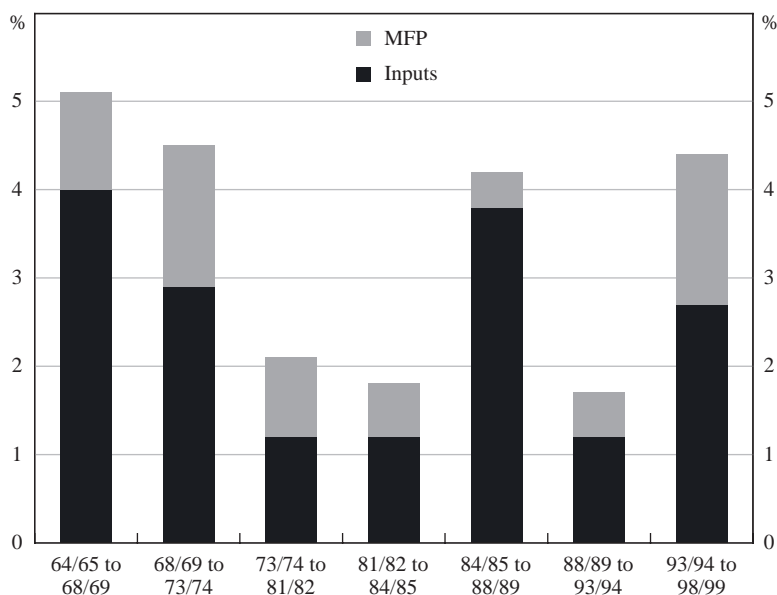
according to peak-to-peak productivity cycles, as determined by the Australian Bureau of Statistics.)

Figure 3 shows, for the major industrial classifications of the market sector, the growth of labour productivity, capital deepening (increases in the capital-labour ratio), and MFP growth. Wholesale trade, communication, finance and insurance, construction, and transport and storage are above average for the 1990s for growth in MFP. Although not shown, it might be noted that of these above average sectors, wholesale trade, transport and storage, and finance and insurance were below average for MFP growth in the period 1988/89 to 1993/94.

To what extent is this growth due to microeconomic reform? When one examines the various feasible reasons for the growth, and holding one's breath with respect to possible revisions of the statistics, it is difficult to reject the hypothesis that at least some of the productivity burst is due to the reforms.

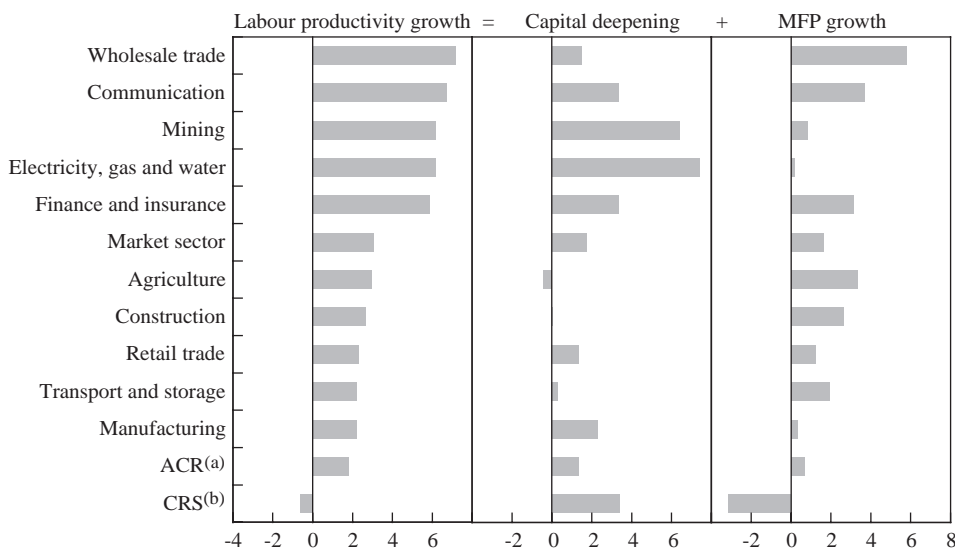
It is to be noted that the spurt in productivity growth commenced before that in the United States, and that on an industry basis, the growth is more widespread than in the US. On a more cautious note, that many of the industries showing the most rapid growth were those in which there was previously a decline in multifactor (and labour) productivity needs further investigation, and is being investigated. On the

Figure 2: Output Growth in the Market Sector
Annual average, per cent per annum



Source: ABS Cat No 5204.0

Figure 3: Labour Productivity Growth, Capital Deepening and MFP, 1993/94 – 1998/99
Annual average, per cent per annum



- (a) Accommodation, cafes and restaurants
- (b) Cultural and recreational services

Source: Productivity Commission

other side, however, it should be noted that industry protection has fallen considerably over the last fifteen years for tradeable manufactures. Productivity for these industries would be best measured in terms of international, not domestic, prices and this correction would raise measured productivity growth for these industries and for the economy as a whole.

I now turn to Peter's comments on the costs of reform.

Risk and uncertainty

Have risk and uncertainty increased as a consequence of reform? In some ways the answer is yes, and Peter has focused on these. But in some other ways risk and uncertainty have been reduced. For example, there are now more ways available to diversify risk, particularly but not only in financial markets. For many firms there are now more potential sources of supply, domestically and from abroad, and this makes firms less at risk from interruptions to supply. Also, with the outsourcing of many activities (sometimes due to policy reforms) risk is spread for the suppliers of services. For example, accountants working for a manufacturing enterprise have their immediate fortunes dependent on that enterprise. Working for an accounting firm, their fortunes will depend on a range of clients: risk will be spread.

Search costs

Peter suggests that if the net benefits of greater choice are being counted, so should the costs of additional choice. This is so, though it is important to note that additional choice as such does not incur a cost. Search costs do not necessarily have to be incurred: I can still purchase the first variety of a product I see on offer, and probably be no worse off (at least on average) than I was when there was no, or less, choice.

Adjustment costs

There is no doubt that those who are displaced from an industry for any reason, reform or other, experience adjustment costs. Reform generally will make some industries contract (as compared with no reform – which in some cases may simply mean slower expansion) and others expand. Is there more adjustment going on with reform? Aggregate data on industry adjustment do not appear to support the view that there is now more adjustment. Nor has the overall unemployment rate risen over the reform period. (Of course, what matters is the counterfactual, which formal modelling of the period may help us to identify better.) Further, and perhaps rather surprisingly, the duration of employment of those who are employed has increased, not decreased, if we compare 1988 and 1998: that is the percentage of employed people who have been employed for more than a year has risen. On the other hand there has been a rise in the proportion of men over 45 who have dropped out of the labour force, and this could in part be due to displacement as a consequence of the reform process. Nevertheless it is difficult to find in aggregate statistics evidence for greater employment insecurity, despite widespread perception of such insecurity.

Some may argue that the increased share of employment which is casual is an indication of increased insecurity in the labour market, and that this change is the product of microeconomic reform. While the share of casual employment has increased, recent work in the Productivity Commission (Murtough and Waite 2000) shows that the ABS measure of casual employees overstates those who are genuinely casual by at least a third, a result that leads to caution in intertemporal interpretations.

Finally, Peter states that labour forces have usually not been major beneficiaries of reform. I would rather express this as incumbents generally not being major beneficiaries of reforms that affect them directly. The effect of the reforms as a whole on various groups in Australian society is another story.

References

- Murtough G and M Waite (2000), *The Growth of Non-traditional Employment: Are Jobs Becoming More Precarious?*, Productivity Commission Staff Research Paper, No 0013028, Ausinfo, Canberra.
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3. General Discussion

Participants generally agreed with Forsyth's hypothesis that microeconomic reforms undertaken during the past two decades had contributed to productivity growth during the 1990s. However, there was considerable discussion about the costs associated with structural reform. One aspect that was discussed at length was the impact that reforms have had on the Australian workforce. Participants also discussed some measurement issues, and in particular, the difficulty of relating macroeconomic outcomes to specific reform measures. Some raised the issue of whether the reform process had been largely completed, or alternatively, whether there was room for significant further reform.

The overall issue of whether Australian workers had been made better or worse off generated considerable debate. A few noted that productivity gains from reform tend to be overstated if some of the gains result from greater effort on the part of the workforce. They argued that this cost or 'disutility' should be deducted from the measured gains from reforms to obtain an estimate of the net gains.

However, many argued against the position put by John Quiggin in his discussants' comments, that most of the reform measures implemented in Australia during the last two decades had substantially increased demands on the labour force, both in terms of working hours and work intensity, and that as a consequence growth in real wages per unit of effort had not accelerated during the 1990s. One participant pointed out that while work intensity may have increased as a result of microeconomic

reform, workers had also reported increased job satisfaction over the last decade. Data on job absenteeism is often used as a proxy for job satisfaction, and the participant pointed out that absenteeism had declined over the 1990s. Another cautioned against drawing strong conclusions from the types of surveys cited by Quiggin in his discussion of Forsyth's paper, saying that workers often tend to overstate work effort. The participant further pointed out that there had been no evidence of increased job insecurity and that some surveys indicated that workers' confidence about future job prospects had in fact increased during the 1990s.

In addition to highlighting some of the drawbacks to the ways in which labour market surveys are conducted, participants also discussed the difficulty of quantifying the effects of microeconomic reform. One participant, for example, pointed out that the very definition of microeconomic reform is problematic. The participant argued that any reform measure that does not constitute fiscal or monetary policy reform is treated as microeconomic reform, and that this way of looking at microeconomic reforms as a 'residual' makes the discussion of the effect of reforms meaningless. Many also agreed that a more fruitful discussion would involve linking microeconomic reforms to specific outcomes. It was also noted that a critical question is whether productivity gains would have been realised in the absence of microeconomic reform. Some participants felt that the discussion had focused primarily on the productivity gains associated with reforms, and that a more complete analysis should also consider gains in allocative efficiency that result from improved pricing mechanisms, better allocation of investment funds etc. These benefits have a positive impact on welfare, but may not necessarily translate into productivity growth.

On the issue of whether the reform agenda is complete, many argued that it is not. A few participants pointed out that some state-run enterprises remain heavily regulated, and that further deregulation would be necessary to increase their efficiency. The transportation industry was another area where some felt that more reforms were needed. One participant observed that the government had avoided the more difficult reforms, including education and health-care reforms, and argued that reforms in these areas are essential in order to sustain the productivity boom.