HR NICHOLLS SOCIETY XXIII CONFERENCE

MINIMUM WAGES:

EMPLOYMENT AND WELFARE EFFECTS, OR WHY CARD AND KRUEGER WERE WRONG

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Introduction

In recent years a major controversy has developed in OECD countries, including Australia, over the issues of whether governments or their regulatory institutions should prescribe minimum wages, the levels at which any such minima should be set, and the consequences if they do. Such issues have been part of the broader debate about labour market regulation and the appropriate components of welfare policy.

The debate has developed against a general background in which unemployment has increased and/or employment growth has struggled to keep pace with the growth in working-age populations. The increased difficulty experienced by unskilled workers in obtaining employment has been reflected in the growing proportion of populations reliant on welfare assistance. This situation has produced two different types of response.

In the US, employers and employees have continued to be allowed greater freedom than elsewhere to determine wages and conditions and, although national and state minimum wages have been increased at irregular intervals, they have nevertheless been kept at low levels relative to average earnings. The US has also increasingly linked the provision of welfare to preparedness to work, including through the provision of an earned income tax credit (EITC). Especially after the Thatcher-era reforms, the UK also developed a more flexible labour market (with unemployment now down to around US rates) and, although it recently introduced a minimum wage, that was set at a relatively low level. It also put increased emphasis on linking welfare payments to employment, including a "working families" tax credit.

In both countries the lesser regulation of employment conditions has been accompanied by increased rates of employment and declining rates of unemployment, as well as a reduced reliance on unconditional welfare. At the same time, the widening in the dispersion of earnings in both the US and the UK has led to criticism that increased labour market flexibility has put an inappropriate burden of adjustment to changes in economic conditions on wage earners.¹

By contrast, Continental European countries have generally maintained more heavily regulatory labour market regimes, with relatively high minimum or "reservation" wages.² While proponents of this approach claim it is to be preferred because the distribution of European earnings is more equal, the generally higher rates of unemployment³ and/or lower rates of employment than in the US/UK have meant that

¹The US approach has been widely characterised as creating a class of "working poor". However, care needs to be taken in interpreting the period when real US earnings fell at the bottom end. The data on US earnings exclude large non-cash benefits received by labour and is not a comprehensive measure of total compensation or the trend thereof. For further analysis, see Moore, Des, *The Performance of the US labour Market*, Australian Bulletin of Labour, Vol 25 No 1 March 1999.

 $^{^{2}}$ A few European countries have not had a minimum wage but have used the minimum social welfare safety-net payment as a reservation wage below which nobody would readily accept a job.

³ Although the unemployment rate has been reduced in many European countries (in some to below the US rate) this appears at least partly to have involved a shifting of unemployed on to some form of social security (apart from unemployment benefits) rather than into employment. Assessments of

higher proportions of the working-age population have been deprived of the earnings and opportunity of advancement that employment provides. The greater dependency on welfare has also required governments to impose the higher taxes needed to provide higher welfare assistance, which in turn have adverse implications for employment. The more extensive attempts to improve employment through labour market programs appear to have had only limited success.

The debate about whether the US/UK or Continental European approaches to labour market and welfare policies should be pursued is naturally relevant to Australia. Notwithstanding the US research (discussed below) suggesting that minimum wages do not necessarily have adverse effects on employment and may thus usefully contribute to welfare policy, this paper's examination of the research and the analyses of it suggests:

- Adverse effects from a European policy on employment are highly likely, particularly in the case of unskilled workers, and employment/wages policies should be based on that assumption; and
- The use of a minimum wage as a component of welfare policy is an ineffective and inefficient way of assisting those on low incomes.

For Australia, a freer labour market policy, combined with welfare assistance linked to work, can be expected to result in higher employment and a better welfare outcome for low-skilled workers.

The Card/Krueger "New Economics of the Minimum Wage"

According to conventional economic analysis, setting a legal minimum wage above market clearing rates will reduce numbers employed at the bottom end of the labour market, thereby increasing unemployment rates for unskilled workers. Although such a minimum wage will make those who retain their jobs better off, those who lose their jobs will be worse off. In the short term, welfare payments may ameliorate the negative effects on those who lose their jobs. However, because they are denied access to the employment ladder, the long-term damage is likely to be more serious. For this reason, in the past most economists considered a minimum wage an inappropriate instrument for improving the welfare of low-wage workers.

In the early 1990s two US economists, David Card and Alan B. Krueger (CK), challenged this conventional view by claiming that, within limits, setting a legal minimum wage above free market rates has either zero or positive effects on employment and that, consequently, a minimum wage is an effective measure for improving the welfare of low-paid workers. CK base their "new economics of the

labour market performance thus need to include analysis of trends in both employment and unemployment.

minimum wage" mainly on their extensive and varied research conducted mostly in the early 1990s, but also more recently. This includes:

- A telephone survey, covering 400 fast-food stores, designed to discover the effects of an increase in the hourly minimum wage in 1991 in New Jersey from \$4.25 per hour to \$5.05 per by comparing levels of employment in that state with neighbouring Pennsylvania where the state minimum remained at \$4.25. This survey showed that employment in fast-food stores expanded in NJ relative to Pennsylvania following the rise in the minimum wage. Moreover, employment expanded more in NJ in stores that were forced to raise their wages than in stores previously paying above minimum wages.
- A separate survey of the effects of an increase in the Federal minimum wage in 1991 on employment in fast-food restaurants in Texas produced similar results.
- A cross-US state econometric⁴ analysis that showed no reduction in teenage unemployment following increases in the Federal minimum wage from \$3.35 to \$3.80 in April 1990 and to \$4.25 a year later.
- A replication and re-evaluation of studies conducted in the past by others and commonly cited as evidence of the negative effects of minimum wages using more recent data. This produced results that they claim substantially weakened the conclusions from the original findings.
- Research showing no reduction in employment/population ratios across states in the US following increases in the national hourly minimum wage from \$4.25 to \$4.75 in October 1996 and then to \$5.05 in September 1997.

They also claim that changes in the structures of wages following increases in minimum wages are often inconsistent with the predictions of standard theory—for example, that a minimum wage tends to reduce wage variability across apparently similar workers and that increases in minimum wages tend not be offset by reductions in fringe benefits.

Early in their book, *Myth and Measurement: The New Economics of the Minimum Wage*, 1995 (M&M) CK state:

If a single study found anomalous evidence on the employment effect of the minimum wage it could easily be dismissed. But the broad array of evidence presented in this book is more difficult to dismiss (M&M, p 4).

As CK are apparently able economists with impeccable pedigrees (for Card, Queens Ontario, Princeton, UC Berkeley; for Krueger Cornell, Harvard, Princeton) it is perhaps not surprising that their claims that minimum wages have zero or positive effects on employment have been widely publicized and influential in policy-making circles throughout the world. However, much less publicized, and very important for labour market policy in Australia, is the CK caveat:

⁴ Econometric analyses are essentially statistical tests of propositions derived from economic theory.

This is not to say that the employment losses from a much higher minimum wage would be small: the evidence at hand is relevant only for a moderate range of minimum wages, such as those that prevailed in the US labor market during the past few decades (M&M, p 393);

and repeated in 1998

 \dots if the minimum wage is raised too much, we will see job losses; there is a tipping point.⁵

In short, unquestionably CK accept that minimum wages cannot be raised beyond some (unspecified) point without reducing employment. This is especially relevant for labour market policy in Australia, where the minimum wage of nearly 60 per cent of the median wage is higher than in most countries and much higher than in the US or UK, where it ranges between 36 and 42 per cent of the median.⁶ *Prima facie*, this suggests that minimum wage increases in this country are more likely to have adverse employment effects. Conversely, decreases are more likely to have favourable effects.

The following summarises a range of research that casts serious doubt on the validity of the CK arguments on minimum wage effects. Although (as with most other controversial issues in economics) it is not possible definitively to disprove the CK claims on employment effects, the analysis of this research and evidence strongly suggests neither employment nor wages policies should be based on them.

Evaluating the theoretical basis for the CK claim

The strongest argument against the claim is that it runs counter to a central tenet of economics (and commonsense)—that if the price of something rises, people will buy less of it. Or, in other words, people respond predictably to incentives. To some people this may seem more like a prejudice than an argument, but it is not. There is a very wide array of readily observable evidence, much incontrovertible, accumulated over centuries from many spheres of human interaction and consistent with the proposition that there is an inverse relationship between quantity demanded and price. For example, throughout history shortages of agricultural products have consistently resulted in price increases. There are numerous cases of stocks of unsold agricultural commodities as a result of price support schemes. Taxi licences and import licences are valued positively when numbers of taxis are restricted and when imports are subject to restrictive quotas. Ticket scalping is a common practice for popular events. And so on. This kind of evidence of the pervasiveness of predictable responses to changes in price (the law of demand) is so convincing to most economists that they are naturally very sceptical of claims of apparently contradictory evidence.⁷ Moreover, when claims are made that are not in accord with conventional theory (for example, that raising a minimum wage does not reduce employment), economists properly insist on adequate explanations for them. CK and their supporters have

⁵ Card, D and Krueger, A, *Unemployment Chimera*, Washington Post, 6 March 1998.

⁶ This is discussed further later in the paper.

⁷ As Nobel Laureate George Stigler wrote in his classic textbook, *The Theory of Price*: "Perhaps as persuasive a proof as is readily summarised is this: if an economist were to demonstrate its [the law of demand] failure in a particular market at a particular time, he would be assured of immortality, professionally speaking, and rapid promotion".

come up with two explanations that are at least theoretically defensible, although far from convincing for many economists.

CK's main theoretical argument is that, contrary to the conventional economic belief, many firms are not price-takers (wage-takers) in the market for low-wage labour but, rather, have monopsony power — the power to increase profits by reducing the wages they pay. Where a firm has monopsony power, it can be shown unambiguously that setting a legal minimum wage above the wage it currently pays will, *within limits*, induce a profit-maximising firm to hire more labour than otherwise. This is in accordance with CK's claim.

A monopsonist is a single buyer of a given input. A commonly used textbook case of a monopsony employer is that of a country hospital, the single employer of nurses in a district, that is obliged to raise wages for all its nurses in order to induce more (extra) trained nurses married to farmers to sacrifice their leisure and return to work.

Monopsony contrasts with competitive demand for inputs where all firms can buy any plausible quantity of an input, say labour of a given quality, at the current market wage. Where a firm faces competitive demand for an input, the extra cost of an extra unit of labour is the wage rate. In contrast, the extra cost of an extra unit of labour (marginal cost) for a monopsony is *higher* than the wage. The reason is that when a monopsonist hires an extra unit of labour he must not only increase the wage to attract the extra worker but also pay all of his other workers the wage increment. A logical consequence of this is that, just as a monopolist can increase profits by reducing sales and raising price (relative to a competitive supply scenario), so a monopsonist can increase profits by reducing the quantity of, say, labour he hires (relative to a competitive labour demand scenario). Another logical consequence is that a labour monopsonist can be induced to hire more labour by setting a minimum wage above the wage he would choose to set to maximize profits. The essential reason for this is that, with the minimum wage, the extra cost of an extra unit of labour is the minimum wage rate, which is lower than the marginal cost of labour for the monoposonist. In short, the effect of the minimum wage is to *increase* the profit-maximising quantity of labour the monopsonistic firm will hire.

Roughly speaking, the essential reason for higher spending on labour is that the extra cost of an extra unit of labour for a firm with monopsony power is greater than the market wage.⁸ This high marginal cost of labour makes it profitable for a firm with monopsony power to cut numbers employed, relative to levels that it would employ if it were a price-taker. CK use the argument that a minimum wage set above a market

⁸ In essence the reason is that where there is a legal minimum wage of say \$4.00 per hour, the cost of an extra hour of labour will be \$4.00. However, if a firm with monopsony power is paying, say \$4.00 per hour, and wants to hire more labour it will be obliged to pay a higher wage not only to the extra worker, but also to all its current employees. This makes the extra cost of an extra hour of labour substantially higher than the \$4.00 wage, which in turn *reduces* the quantity of labour that can be employed profitably relative to the quantity that would be hired at the constant legal minimum wage. For example, consider a firm that is currently buying 4000 hours of labour at \$4.00 per hour for a total cost of \$16,000 per week. Now suppose that in order to hire say, an extra 1000 hours of labour per week, the firm must raise the wage offered from \$4.00 to \$4.25. Because the firm will have to now pay \$4.25 for all 5000 hours of labour, the extra cost will not be 4000 x \$4.25 = \$4250 but rather \$4250 + 4000 x \$0.25 cents = \$5,250 or \$5.25 per extra hour of labour. Thus where a firm has monopsony power the number of employees it hires determines the wage it pays.

wage induces a monopsonist to hire more labour as an explanation for their finding that employment in fast-food stores increased faster in New Jersey than in Pennsylvania following the 1991 increase in the minimum wage in NJ.

However, for this explanation to be valid monopsony power would have to be pervasive. For example, it must be the case that firms such as McDonalds in Sydney are not able to hire more labour unless they raise wages for both their additional and existing employees. This contention is much less plausible. However, although there is no way of demonstrating *a priori* that monopsony power is not sufficiently pervasive and not strong enough for a minimum wage to induce an increase in total employment of low-wage workers, the proposition is doubtful at best. Finally, it is worth reiterating that CK acknowledge that, instead of increasing the quantity of labour a monopsonist will employ, increases in a minimum wage beyond some point will reduce the monopsonist's profit-maximising level of employment.

A second explanation is a variant of the theory of "efficiency wages"—the notion that some firms are willing to pay above-market wages to induce employees to contribute extra effort. Broadly, the argument is that setting a legal minimum wage above the market wage will strengthen incentives to contribute effort (partly because workers may be happier and partly because the penalty of losing a job carrying an efficiency wage is higher than otherwise) and/or that employers will invest in improving the quality of their workers to lift the productivity to the level required to make employing them at the higher minimum wage profitable. This argument is unconvincing for at least three reasons.

- If a minimum wage obliges *all employers* to pay "efficiency wages", then the incentive effect must be diminished, if not eliminated;
- If an efficiency wage is profitable, it would surely be paid prior to implementing the minimum wage;
- Likewise, if training to lift productivity is profitable, then firms ought to be willing to do it regardless of the existence of a minimum wage.

However, again there is no way of proving *a priori* that the efficiency wage explanation is invalid. In summary, although CK's theoretical arguments are weak, they cannot be dismissed on purely theoretical grounds.

Evaluating the CK evidence

There have been two broad approaches to testing the robustness of the CK evidence. One is to critically examine the data and statistical techniques used in their studies. The other is to investigate the effects of minimum wages using entirely different data.

Criticisms of CK studies

Shortly after M&M was published in 1995 a symposium of reviews by five widely respected US labour economists was published in a leading professional journal edited from Cornell University, *Industrial and Labor Relations Review*, 48(4), 1995 pages 827-849. Some of these reviews included favourable comments, mainly along

the lines of the desirability of continually testing "accepted truths". However, four of the five included strong criticisms in those comments.

Focusing on the central study in M&M, employment in fast-food stores in New Jersey and Pennsylvania, Charles Brown made the following points (pages 828-30):

- Employers would have anticipated the increases in minimum wages and responded to them well in advance of their implementation by taking on less staff than otherwise. To the extent that this was so, the effects would not have been detected in the CK study.
- Since it takes time to substitute capital for labour, the long-run effects on employment could be expected to be more strongly negative. But again, the CK study would not have captured these long run effects.
- If employment in fast-food stores had in fact increased as a result of imposing minimum wages in a monopsonistic environment, then output would also have increased. That would entail selling the extra output, which would require price reductions. However, CK's research showed that, if anything, prices increased.
- Raising the minimum wage increases the average cost of labour, thereby reducing profitability. This in turn should increase exit from, and reduce entry to, the industry, which again could be expected to make long-run effects more strongly negative.

Another of the reviewers, Daniel Hamermesh, stated flatly that the CK claim that their comparative study of fast-food stores in New Jersey and Pennsylvania was a "natural experiment" was invalid because it failed to take account of the likely anticipation of minimum wage increases, and of the substantial time lags for complete responses. Moreover, it was based on the invalid assumption that Pennsylvania was a perfect "control" for the change in New Jersey.

He also argued that "... no unbiased reader could conclude [from their reworking of earlier studies] anything other than that the effect [of minimum wage increases] is small and negative" (p 837). In other words, contrary to CK's claim that this part of their study reinforced their new view, Hamermesh believed it to be consistent with the conventional view. He also pointed out that, while monopsony power might explain a short-run increase in employment, even CK appeared not to believe it carried through to the long run. As he scathingly suggests:

The only argument CK adduce in support of their apparent belief in the longrun positive effects of minimum wage increases is the ... hoary idea often referred to as shock theory... (p 838).

This is the belief that the productivity of labour rises to offset the effects of higher wages—turnover and absenteeism decline because workers are happier; the screening of job applicants improves, and managerial effort increases.

Hamermesh's criticisms of CKs' theoretical explanations for their contrary results are echoed by a third reviewer, Paul Osterman, who states:

The difficulty is that all the stories described in the foregoing several paragraphs are just speculation; little direct evidence is provided for any of them.

and

This lack of grounding makes these models, and all of the others, appear simply as clever post-hoc rationalizations (p 841).

Of the five reviewers, Finis Welch (whose own research is highly respected), is the most critical, arguing as follow.

- Data from the Current Population Survey⁹ (which CK also used) show that in 1992, the year after New Jersey's minimum wage increase, the teenage employment rate in that State was 10 percentage points *lower* than in 1988 (34.5% compared with 45.8%) while the corresponding rates for Pennsylvania remained about the same (43.6% in 1992 and 44.9% in 1998). Indeed, New Jersey had the seventh lowest employment rate in the US in 1992. (Although Welch does not say so, a reasonable inference might be that Card must have known of these inconvenient numbers but failed to include them in M&M). While this does not *prove* that the minimum wage hike had a negative effect on employment, it *does* look like a very smoking gun.
- There is nothing in competitive economic theory that says that an increase in minimum wages will reduce employment in each and everv industry-depending and and on input product substitutions complementarities, employment might well increase in one or more industries while falling overall (p 847). Thus a study focused on the fast-food industry alone cannot be conclusive about the overall effects of an increase in a minimum wage. As he notes:

... a fundamental point that is stressed in every introductory statistics course ad nauseam, a point that needs to be borne in mind in evaluating all Card/Krueger studies summarized in *Myth*: an inconclusive result does not prove there is no effect. (p 846)

In other words, the fact that CK failed to find evidence that increases in minimum wages reduced employment is not proof that they don't have negative effects on numbers employed.

• The form and content of the questionnaire, and the reliability and quality of the telephone survey data collected by CK for the New Jersey/Pennsylvania study, and especially the data for the Texas study (which Welch was unable to obtain), are open to major criticism and raise the question: "... are these data of the kind that you would recommend as the basis for national policy?" (p

⁹According to the internet homepage for the US Bureau of Labor Statistics: "The Current Population Survey is a monthly survey of households conducted by the US Bureau of the Census for the Bureau of Labor Statistics. It provides a comprehensive body of data on the US labor force, employment, unemployment and persons in the labor force".

46). Further, "...it is clearly dangerous to the science if we each have our own 'pocket surveys' that reportedly contain earth-shattering results"(p 848).

Welch concludes his assessment:

Returning to the four cornerstones of *Myth*: the Texas study can be dismissed. The New Jersey study is a monument to poor survey methodology. The two studies by David Card use control groups that are questionable—and, I think, misleading—and the "experiments" have little "bite".

The issues covered in this review survey have also been raised in other studies (see, for example, Dawkins, 1997; Seltzer, 1997). Keil *et al.* (2001) state that CK have been "... seriously challenged on methodological grounds..., ... in particular..." in the symposium papers by Brown, Hamermesh and Welch.

Burkhauser *et al.* (2000b) have recently made an important contribution to the debate by showing why econometric studies by Katz and Krueger (1992). Neumark and Wascher (1994), and CK (1995), all based on CPS data, found increases in federal minimum wages in the US had zero or positive effects on teenage employment, whereas Deere, Murphy and Welch (1995), using the same data, found negative effects of a magnitude consistent with the conventional view. Burkhauser *et al.* argue that the CK econometric model and similar models do not adequately distinguish between year effects (the effects of the particular macroeconomic conditions in a particular year on employment in that year) and minimum wage effects. A consequence of this is that the model erroneously attributes all or most of the variation in employment caused by minimum wage changes to year effects. They acknowledge that the model used by Deere et al. also fails to take adequate account of year effects (and, consequently, some of the variation in employment that they attribute to minimum wage changes could have been caused by changes in macroeconomic conditions). However, they show that this does not seriously bias the Deere et al. results.

As Burkhauser *et al.* put it:

Conceptually, Card and Krueger attempt to distinguish between individual year effects (on employment) and minimum wage increases, whereas Deere *et al.* directly interpret the year (dummy) variables as the federal minimum wage effect (Burkhauser *et al.* 2000b, p 659).

Using modelling and estimation strategies designed to mitigate the problem of separating macroeconomic effects from minimum wage effects, Burkhauser *et al.* conclude:

The preponderance of the evidence [from the Burkhauser *et al.* study] indicates that increases in the minimum wage during the 1990s led to modest but statistically significant declines in teenage employment. We conclude that the elasticity of teenage employment with respect to the minimum wages lies in the range of -.2 to -.6.¹⁰ On the basis of our findings, it is not yet necessary

¹⁰ Elasticity is a measure of the responsiveness of *employment* to changes in a minimum wage. For example, estimated elasticities of -.2 and -.6 indicate that a 5 per cent increase in the minimum wage

to abandon neoclassical theory as a method for predicting labor market outcomes (Burkhauser *et al.*, 2000b, p 676).

Other studies of minimum wage effects

Largely because of the important implications of the CK claims for labour market policies, following the publication of M&M the estimation of the effects of minimum wages became almost an industry in itself. This is illustrated by two surveys prepared by Department of Employment and Workplace Relations (DEWR) and included in The Commonwealth Government's Submission to the Safety Net Review—Wages 2001–2002.¹¹

The first of these surveys covers the results of 19 academic studies of the effects of minimum wages on employment in the US published in the 1990s. Of the 14 published in 1996 or later, 11 find a "significant negative relationship", one by Card and Krueger finds "little evidence" of a negative relationship, one finds no evidence of a negative relationship, and another "mixed results". Three of the five published prior to 1996 find a significant negative relationship. Of the other two, one by Card finds a "positive relationship" and the other, by Card and Krueger, finds "no negative and a possibly positive" relationship. This survey is itself incomplete. It includes neither Burkhauser *et al.* nor Deere *et al.*, both of which show "significant negative" results. Three other known studies show significant negative effects and one produces a "mixed but leaning to negative" result.

The second DEWR survey covers 25 studies based either on data from other countries or international data. Of these, 17 find a significant negative relationship, with the other eight ranging from "neutral to marginally positive", through "no significant effect", to "no clear relationship", to "varied but generally consistent with the view that minimum wages cause employment losses among youth". Again the survey is incomplete. For example, it does not cover a conflicting 1999 study by Dickens *et al.* of minimum wages set by Wages Councils in the UK which finds "no evidence" that they reduce employment (although a study by different authors suggests that this could be because wages set by Wages Councils may have been close to market wages). Nor does it cover some other studies showing negative effects.

The 1997 OECD publication on *Implementing the OECD Jobs Strategy*¹² is also relevant. This reported on the 1994 OECD jobs strategy, which had argued that statutory minimum wages "could have serious adverse effects on employment opportunities for some groups if the wage floor became excessive relative to the productivity of the less productive members of the labour force." While noting the

¹² OECD, Implementing the OECD Jobs Strategy, Member Countries' Experience, 1997 Paris.

could be expected to reduce employment by 1 per cent and 3 per cent respectively. Thus, the higher the absolute value of the elasticity, the greater the expected response to a given change in a minimum wage.

¹¹ A similar OECD survey in the OECD's Employment Outlook covers many of the same papers (OECD, 1998, 72-74).

CK conclusion that minimum wages "may have no adverse effects and could even have beneficial effects on employment", the 1997 publication described that conclusion as "highly controversial and may reflect the fact that the federal minimum wage in the United States is relatively low". It reported that the review process for some countries confirmed that minimum wages are constraining employment among the young and less skilled and that increases in the legal minimum in some countries had triggered off wage increases further up the wage distribution as other groups sought to maintain relativity.

The CK conclusion was also referred to in the assessment of minimum wages in the OECD Employment Outlook for 1998. While noting that there was little agreement about the precise employment effects, the Outlook accepted that "there is general agreement that a statutory minimum wage is likely to reduce employment if set above a certain, usually unspecified, level".¹³

Although these OECD analyses do not provide a definitive conclusion on the employment effects of minimum wages, their generally unfavourable reaction to CK claims is significant given that many OECD countries have and/or support the use of such wages.

The broad conclusion to be drawn from this survey of econometric studies of the effects of minimum wages is that the preponderance of evidence supports the conventional view that increasing a minimum wage reduces employment.

Other implications of minimum wages

Typically, the statistically-estimated elasticities of employment with respect to minimum wage increases are quite low, indicating relatively small reductions in numbers employed in response to raising a minimum wage. However, for several reasons this does not justify complacency about the potential negative consequences of raising such wages:

- There is a moral issue. Is a government justified in making some people better off by setting a wage that prevents even one other from obtaining a job, especially where the person "thrown to the wolves" is likely to be already disadvantaged in at least some respects?
- Even if there is no change in numbers employed following an increase in a minimum wage, it cannot be presumed that no individual has suffered the loss of a job. The reason is that a higher wage may have induced a relatively highly productive person, formerly not in the workforce, to enter the workforce and take a job while simultaneously making it unprofitable to employ a marginally productive worker, either in that same job or another job. In either case, although an individual has lost a job there is no change in numbers employed. In summary, elasticities of aggregate employment are

¹³ OECD, *Employment Outlook*, Chapter 2, June 1998, Paris.

based on net rather than gross changes in numbers employed which, research shows, may be substantially greater than the former.

- For reasons discussed above, long-run elasticities (responses) are likely to be larger (in absolute terms) than short-run elasticities. However, largely to minimize the problem of conflating the effects of wage changes with the effects of other factors that change numbers employed, many elasticities are estimated over relatively short time intervals (one or two years). It is important to be aware that they therefore probably understate the true effects of minimum wage changes on employment.
- Some research suggests that the effects of changes in minimum wages on hours of work are stronger than on numbers employed.
- Research based on panel data (data that tracks the employment histories of random samples or particular populations of workers over time) shows that the effects of changes in minimum wages on particular groups may be large. For example, Burkhauser, Couch and Wittenburg (2000a) find that:

Minimum wage increases [in the US] significantly reduce the employment of the most vulnerable groups in the working-age population—young adults without a high school degree (aged 20-24), young black adults and teenagers (aged 16-24) and teenagers (aged 16-19). While we also find that minimum wage increases significantly reduce the overall employment of young adults and teenagers, these more vulnerable subpopulations are even more adversely affected.

Thus, even though the overall elasticity of employment with respect to a minimum wage increase (and, concomitantly, effects on total numbers employed) may be small, in assessing the welfare consequences of an increase in a minimum wage, the employment consequences for subpopulations may nevertheless be severe.

Some implications for wage setting in Australia

There is general agreement amongst economists that the higher the minimum wage relative to other wages in an economy (that is, the stronger the "bite" of a minimum wage) the larger the negative effects on employment. This is particularly relevant to Australia. As the Commonwealth Government's submission to the Safety Net Review (Australia: DEWR, 2002, 47-50) shows, the ratio of minimum wages to the median wage (0.58) in Australia is high relative to most other countries (Netherlands 0.47; New Zealand 0.46; Canada 0.43; UK 0.42; US 0.36) the exception being France (0.61). In this situation, the effects of increases in minimum wages on low-paid workers in Australia can be expected to be stronger than suggested by estimates from other countries where the "bite" is weaker. Australian elasticity estimates are also more likely to understate the "bite" because they are derived from experience in a more regulated labour market.

The evidence of negative effects of a minimum wage on employment from other countries is broadly consistent with the limited Australian academic studies of minimum wage effects. In a 1997 article, Dawkins and Freebairn $(D\&F)^{14}$, after reviewing various estimates of the elasticity of demand for labour and the evidence on the changes in minimum wages, present alternative 'hypothetical simulations' of the results of holding money minimum wages constant for four years, with the objective of reducing real minimum wages. These alternative simulations all result in a reduction in unemployment, including one that reduces the rate to 5.5 per cent from 9 per cent.

The proposal by the five economists for a wage freeze on minimum awards (discussed further in the next section) also includes econometric estimates showing that a freeze on minimum wages would, if sustained, increase employment—"particularly amongst those who rely on wages safety net adjustments for wage increases"—by 2 percentage points over two years and 4 percentage points over ten years. While a centrally-imposed wage-freeze is strongly opposed, the evidence summarised above shows that the important role of wages in determining employment and unemployment at the bottom end of the labour market in this country should be central to the deliberations of those responsible for setting award wages in Australia.

Summary

As CK state in the introduction to M&M, the adverse direct and indirect effects for those who lose jobs led economics Nobel laureate George Stigler in 1946 to implore:

... economists to be "outspoken, and singularly agreed" that increases in the minimum wage reduce employment. (M&M, p 1)

Later in the same paragraph CK write:

But there is one problem: *the evidence is not singularly agreed that increases in the minimum wage reduce employment.* (M&M, p 1)

Perhaps not singularly. But the survey of econometric studies and other analyses of the effects of minimum wages indicate that the empirical evidence strongly supports the conventional view that increasing a minimum wage reduces employment. Indeed, as discussed above, many well-qualified analysts have concluded that the theoretical explanations offered by CK are unconvincing. It is highly unlikely that monopsony power is sufficiently pervasive or strong to lead to higher employment overall following an increase in a minimum wage. Moreover, although CK base their claim on several different studies, most of those studies have been shown to be flawed either because of doubts about the reliability of the data; because they are limited to a single industry; because time periods covered are short; or because their econometric models were defective. It is important, too, that many other studies, also by well-qualified analysts, support the conventional (and common sense) view.

¹⁴ Dawkins, P and Freebairn, J, *Towards Full Employment*, Australian Economic Review, Vol. 30 No. 4, Dec 1997, pp 405-17.

Of course, even though the CK claim seems to be widely discredited by such analyses, there remains a general perception that minimum wages raise the living standards of low-wage earners and, in doing so, have few or no adverse effects. Thus, despite the likelihood that the wider community will be worse off because there are fewer employed and fewer with the opportunity to get work experience, and because it loses the benefits from lower prices for non-traded goods and services produced by low-cost labour, such costs are all too frequently overlooked. Nor is much attention given to the acknowledgement by CK that "if the minimum wage is raised too much we will see job losses".

However, particularly for Australia where the minimum award wage is already high by international standards, the foregoing review suggests that there should be little doubt that Stigler's plea should remain a basis for determining wages and employment policy. That is all the more important given, as shown in the next section, there are more effective approaches to improving the welfare of low skilled workers.

The Minimum Wage As A Welfare Instrument

Since the Card and Krueger minimum wage claim, the argument amongst economists has centred on the employment effects. There has been an implicit assumption behind this argument that, if those effects can be shown to be favourable or at least neutral, that will justify strong support for a minimum wage (within limits) because of the favourable welfare effects, *viz.*, that it would provide significant protection of the living standards of those able to earn only low wages. But the evidence suggests that the minimum wage is both largely ineffective in helping such people and also a very inefficient welfare instrument more generally, especially in Australia.

A general appreciation of its ineffectiveness can be obtained from ABS data on income distribution.¹⁵ For households in the lowest quintile, these show that in 1999–00 wages and salaries provided only 8.3 per cent of gross income while nearly 70 per cent came from Government pensions and allowances. Those in the lowest quintile include asset "rich" but income "poor" pensioners who would experience no direct income effects from changes in minimum wages. Moreover, account needs to be taken of the fact that some of those households who start in the lowest quintile will move, over time, to higher quintiles.

In short, the wages "system" is relatively unimportant as a provider of income support for low-income households because they receive most, in many cases all, their income through the tax and social security systems. Although this is not a socially desirable situation, the fact is that those systems also appear to have been providing effective support, as shown by the slight increase in the percentage share of income going to the lowest quintile for households between 1994-95 and 1999-00. Indeed, although there has been a widening in the distribution of *earnings*, the effect on overall

¹⁵ Australian Bureau of Statistics, Income Distribution 1999-2000, Cat No 6523.0.

household *incomes* has been offset through those systems so that there has been "no significant change in the level of inequality in the period since 1994-95".¹⁶

It is somewhat ironic that, despite the wider dispersion of earnings, and despite the decline in real minimum wages since the mid-1970s,¹⁷ the Australian Industrial Relations Commission (AIRC) has continued to be portrayed as the principal protector of low wage earners. The Commission presumably seeks to reinforce that image through its strange decisions in Safety Net cases determining minima for awards that cover employees receiving wages at rates well above the lowest minimum.¹⁸

The inefficiency of using the minimum wage as a welfare instrument is revealed by the fact that more than half of low-wage earners are located in the top fifty per cent of 'equivalent' family disposable incomes.¹⁹ This mainly reflects the fairly even spread across the range of household incomes of married women and young people who are employed at low wages (defined as adults earning less than \$10 an hour and juniors earning less than \$6 per hour in 1994–95). The welfare of most in this group would not be dependent on the minimum wage: rather their wages would be used to supplement family income and/or for discretionary spending.

An implication of this income dissection is that raising the minimum wage is likely to *increase* the inequality of incomes as between households. It also implies a policy of providing large amounts of "welfare" to those living in households with above average incomes. Neither approach is suggestive of a social welfare policy intended to target assistance to those in need.

A 1998 paper by Ann Harding and Sue Richardson $(H\&R)^{20}$ includes the attached chart that, in addition to providing the above-mentioned dissection of the location of low-wage earners into decile groups of "equivalent disposable income" (similar to household groups), shows that a high proportion of the unemployed are in the lowest deciles of the income distribution. As a single unemployed adult receives \$9,500 a year and minimum wage earners about \$21,000 a year²¹, this raises the possibility of improving income distribution by allowing minimum wages to be set lower in the market place, thereby increasing the employment of the unemployed and raising their income.

²⁰ Ibid.

²¹ The current lowest minimum wage of about \$11 per hour would yield an annual income of about \$21,000 for a full time employee compared with the unemployment benefit of \$9,500 for a single person (\$8,500 each per couple), tapering down to zero at an income of \$15,750.

¹⁶ Ibid p 6.

¹⁷ Moore, Des, The Case for Further Deregulation of the Labour Market, Chart 1 p 37.

¹⁸ These awards extend to those earning over \$900 per week. Further, although only about a quarter of the work force is subject to award wages, when awards are increased there is normally some flow through to those in the "informal" sector where there is no formal wage agreement (covering about 40 per cent of employees).

¹⁹ Harding, Ann and Richardson, Sue, *Unemployment and Income Distribution*, Reserve Bank and Centre for Economic Policy Research, ANU, *Unemployment and the Australian Labour Market*, June 1998.

Partly reflecting their perceived uncertainty over the employment effects of minimum wages, H&R expressed the judgment that the impact of lower wages on income equality was "unclear" because a lower minimum wage would make all low-wage workers worse off and would benefit only some unemployed. However, a lower minimum wage would not reduce the wages of all existing low wage earners: those with satisfactory productivity would retain their existing wage. Moreover, those who were unemployed and started on a lower minimum would obtain the work experience that would, over time, provide increased opportunities to improve work skills and move up the wages ladder.

Also relevant here is the composition of the unemployed and employed. Although it is difficult to obtain a satisfactory break down of relative skills from ABS data, the following table suggests that the unskilled and inexperienced appear to make up about 60 per cent of the unemployed. By contrast, they appear to comprise only about 20 per cent of the employed. This highlights the considerable potential for reducing the extent of unemployment benefits and improving labour market performance by employing more of the unskilled and inexperienced. As suggested already, that would be considerably assisted if employers were allowed to offer wages at lower than the prescribed minimum.

	August 2001				May 2000/Aug 2001
	Unemployed		Employed		Av Wage
	000	%	000	%	\$ per week
Skilled*	128	19.9	5,038	55.2	829
Semi-Skilled #	113	17.5	2,364	25.9	562
Unskilled +	152	23.6	1,722	18.9	400
Other ~	250	38.8	-	-	-
TOTAL	644		9,124		653

Table: Employed, Unemployed and Wages by Broad Skill Categories

*Managers and Administrators, Professionals, Tradespersons and Advanced Clerical and Service Workers.

Intermediate Clerical, Sales and Service Workers, and Intermediate Production and Transport Workers.

+ Elementary Clerical, Sales and Service Workers, and Labourers and Related Workers.

~ Looking for first job, Looking for full time work and former workers.

Note: Av wages are calculated by using av wages for each major occupational group in May 2000, employment for each major occupational group in August 2001 and re-calculating av wages for the above groups. ABS publications on the Labour Force and Employee Earnings were used for this purpose.

In a paper presented shortly after their June 1998 paper, H&R also expressed doubts about the desirability of using *increases* in the minimum wage to improve income distribution and agreed on the inefficiency of that instrument, *viz*:

We agree that an increase in the level of low and even minimum wages is not a very efficient instrument for equalizing the distribution of equivalent family income. Although it is somewhat equalizing, means-tested support for children in low income working families or an earned income tax credit would be more efficient instruments, if no account is taken of the costs of raising the revenue which they require.²²

The issue of possible alternative forms of assistance to low-income groups is considered further below.

Notwithstanding the considerably less extensive provision of social security benefits in the US, recent analysis has pointed out that the use of wages as a welfare instrument is also ineffective in that country. In 1999 Professor Burkhauser of Cornell University, who has made submissions to the US Congress and the UK Low Pay Commission arguing the welfare ineffectiveness of the minimum wage, presented to the Commission a paper²³ that assessed the effect of the minimum wage on the income of a family of four on the poverty line of about \$US16,000 in 1996. This showed that wages would have provided only about 5 per cent of the income of families on such a line.

Burkhauser also pointed out that most workers who received the 1996 increase in minimum wages²⁴ lived in families whose income was far above the poverty line. As in Australia, "most minimum wage workers are not the heads of poor families struggling to earn a living wage [but] are single persons or second or third earners in non-poor families". He concluded that:

advocates of further minimum wage hikes must recognize that such increases were never very target-efficient and are even less so today. Moreover, the role of government and the number of policy options available to reduce poverty have changed considerably since the late nineteenth and early twentieth centuries when minimum wage policies were first debated. Today, the appropriate question to ask is: Are there better alternatives to minimum wage hikes available to help insure a living wage for the working poor? The answer to this question is unequivocally yes. The Earned Income Tax Credit (EITC) is a far better mechanism for rewarding low wage workers who live in poor families.

²² Harding, Ann and Richardson, Sue in "Low Wages and the distribution of family income in Australia", 23-29 August 1998, p15.

²³ Burkhauser, Richard V, *A Review of Recent Evidence on the Effect of the Minimum Wage on the Working Poor*, Prepared for Low Pay Commission's International Minimum Wage Symposium, September 8 1999, London, England (revised 13/9/99).

²⁴ In 1996, the Federal minimum wage was increased from \$US 4.25 per hour to \$US 5.15 per hour.

A Possible Alternative to Using the Minimum Wage For Welfare

From an Australian perspective this reference to the EITC is relevant to the proposal by the five economists to increase employment and reduce unemployment through a wage freeze on minimum awards accompanied by a tax credit designed to protect the living standards of low wage earners while providing an increased incentive to work. The tax credit would be provided to wage earners only and would increase progressively up to a maximum of \$30 per week (after three years), but with a cut-off at an income of \$31,150 pa. It would tend to reduce the inequality of incomes because, unlike a minimum wage increase, the benefit would not go to those living in higher income families.

This proposal has been supported by the Business Council of Australia (BCA) which in December 2000 published an update ²⁵ of the initial presentation of the proposal at a special conference held in April/May 1999 for that purpose. The update now includes, first, the modelling of two alternative wage freeze scenarios by Professor Peter Dixon using his MONASH model and, second, an analysis by NATSEM of the budgetary and income distribution effects of introducing a tax credit. The results of such modelling depend, of course, on the assumptions made about, *inter alia*, the response to the reduction in real wages from the freeze.

The first scenario assumes the reduction, covering 25 per cent of employees, is permanent and estimates an increase in employment of 2 percentage points over two years and 4 percentage points over ten years. An important basis of the assumption is that the tax credit is accepted as an appropriate compensation policy and there is "thus no need for any catch-up adjustments after the three year period of the freeze". This scenario produces considerably higher GDP and employment, "particularly amongst those who rely on wages safety net adjustments for wage increases". The only "losers" are said to be those who do not receive the income-tested tax credit because they are in "relatively high income families". The second scenario assumes the wage freeze is not permanent, so that the gains to employment are only short term. However, it is argued that, in practice, the provision of the tax credit is likely to mean that there will be some permanent employment effects from even a short-lasting wage freeze.

The estimated *gross* cost of the tax credit was put at about \$4.4 billion per annum (after three years) but the increased employment and output under scenario 1 would generate sufficient revenue to more than pay for the tax credit. Under scenario 2, however, tax would eventually have to increase to pay for that.

One problem with this BCA-endorsed proposal is that it "does not address the feasibility of implementing such a policy with our current institutional structures" and it acknowledges that a permanent reduction in real wages "may be difficult to engineer

²⁵ Business Council of Australia, *A Wage-Tax Trade-Off to Reduce Unemployment: A Quantitative Analysis,* Discussion Paper 4, December 2000).

in Australia's current setting". What is implied (but without saying so explicitly) is that, unless the powers given the AIRC were to be reduced or eliminated, that institution would almost certainly assume a role for itself in determining and/or varying the minimum wage. Given the track record of that body, it is unlikely that it would agree voluntarily to a wage freeze except in an economic emergency. The likelihood is that there would also be problems in sustaining a wage freeze covering a significant proportion of employees. These and other issues are further considered in my submission to the Business Council's special conference.²⁶

Most importantly, however, the proposal would retain the existing legislative/institutional arrangements that impose a high degree of regulation of employment conditions. Indeed, because the AIRC would undoubtedly "supervise" any wage freeze, its role and responsibilities would likely increase. Experience suggests that, while Government sponsored "trade-off" strategies may produce short-term benefits, they tend to have adverse side effects which either distort other areas of the economy or which delay needed structural reforms.

For all the foregoing reasons, the wage freeze approach is strongly opposed. Ideally, wages should be determined in the market, with unemployment benefits being relied upon to provide the welfare safety net for those unable to obtain employment. However, there is no doubt that, put forward on its own, a market-determined wages policy would be strongly opposed both politically and by many academics. The adoption of such a policy would be made easier politically, therefore, if it were accompanied by some kind of protective social security measure linked to work for those experiencing a reduction in wages. Such a measure could be limited to those living in relatively low-income households, along similar lines to Austudy. It would have the important advantage of providing an increased incentive to work.

One possible measure would be an earned income tax credit as provided in the US, where such credits go to one sixth of the workforce and extend up to incomes of about \$US30,000. However, given that Australia already provides social security/ health/education assistance that is more extensive than in the US, it may be more appropriate to adapt an existing benefit rather than introduce an earned income tax credit that is as "generous" as in the US.

Workplace Relations Minister Abbott has acknowledged²⁷ that a "social wage" (that is, the benefits provided through the tax-social security system) is a 'much more effective' way of helping low-income earners, that the benefits to low income earners of an increase in the federal minimum award wage are 'comparatively minor', and that it does not make sense in these circumstances to increase employers' costs. Of course, even a social wage measure that was means/asset tested would likely involve significant *net* costs to the Budget, that is, even after allowing for the reduction in unemployment benefits and the increase in income tax from higher employment. The implications for fiscal policy would thus pose potentially significant problems.

One way of avoiding any additional budgetary cost would be to "trade off" a reduction in some of the existing social welfare benefits that are provided to higher income

²⁶ Moore, Des, *New Directions or Old Paths*, Submission to BCA Conference on New Directions, 23 April 1999, Institute for Private Enterprise.

²⁷ Sydney Morning Herald, 9 February 2002.

groups against provision of additional assistance to low-wage earners in low-income families. Analysis of the Household Expenditure Survey for 1998-99 shows that the two higher income groups received over \$30 billion in benefits of various types in that year, including about \$10 billion in health benefits.²⁸ Moreover, analysis by the Treasury's Retirement Income Modelling Unit—RIM—suggests that, unless existing eligibility for health benefits is reduced, the ageing of the population will require a very large increase in the proportion of GDP allocated for that purpose and, in consequence, a significant increase in taxation.²⁹ Accordingly, some of the savings from the modification of social welfare policy that will inevitably be required could be used to provide assistance to low-wage earners in low-income families and, at the same time, help fund an increase in employment.

Summary

The idea of increasing employment by freezing minimum wages and providing "compensation" to low-wage earners via an earned income tax credit is strongly opposed. Wage freezes would be difficult to sustain in practice and, most importantly, would risk entrenching the existing regulatory arrangements, possibly even enhancing the role of the AIRC. Employment is best encouraged by allowing wages to be determined by the market.

The case for pursuing this course is enhanced by the fact that, contrary to widely held perceptions, the minimum wage is both ineffective and inefficient as a welfare measure to assist low-wage earners. Wages provide a very small proportion of the income of those households in the lowest quintile, with most coming from a social security system that has been ensuring little change in income inequality. Further, as more than half of low-wage earners are located in the top half of household incomes, any increase in the minimum wage actually increases the inequality of incomes as well as being very poorly targeted from a welfare perspective. Even with the less extensive welfare provided in the US, the minimum wage is similarly inefficient and ineffective in that country.

A decision to allow wages to be determined by the market could be made more acceptable if it included some form of additional social security assistance linked to and encouraging work for low-wage earners in low-income households, and protecting their living standard. The additional income supplements available for low-paid employees would also secure community acceptance of the lower starting wages needed to enable employers to profitably increase employment of lower skilled workers. Given that Australia already provides social security/health/education assistance that is more extensive than in the US, it might be more appropriate to adapt an existing benefit rather than introduce an earned income tax credit that is as "generous" as in the US.

²⁸ Moore, Des, *Why We Need to Reduce Health "Welfare"*, Presentation to Bristol-Myers Squibb Seminar on Health Policy, Melbourne 19 June 2001, Institute for Private Enterprise. The over \$30 billion in benefits includes direct benefits paid in cash (such as government pensions and allowances) and *selected* indirect benefits such as for education, health and housing. The \$10 billion in health benefits went to those in the fourth and fifth upper income quintiles. The extent of the widening in the availability of benefits is revealed in a recent analysis by the Department of Family and Community Services showing that direct benefits alone now go to about 22 per cent of the working age population compared with "only" 15 per cent at the end of the 1980s.

²⁹ RIM's analysis (summarised in Moore's paper) suggests that the proportion of GDP allocated to health could increase from about 8.5 per cent to 13-16 per cent by 2031 and that, under existing policies, this would require an increase in taxation of 25 per cent.

To avoid any additional budgetary cost, such assistance could be financed by reducing social welfare benefits currently provided to higher income groups. This will be required in any event if large funding and tax increases are to be avoided under existing policy as the population ages. Although proposals to reduce existing benefits would be strongly opposed, such a package would have the offsetting attraction of increased employment and reduced unemployment, and would offer potential for further favourable employment effects from additional labour market deregulation.

Conclusions

It is not possible definitively to disprove the CK claim that, within limits, the employment effects of raising the minimum wage will be zero or positive. However, assessments of this claim need to take account of the following:

- Many well-qualified analysts either reject or are patently unconvinced by CK's theoretical explanations or by their field studies. Indeed, the research and studies by such analysts themselves provide general support for the conventional (and common sense) view that increasing a minimum wage reduces employment.
- Although CK base their claim on several different studies, most of those studies have been shown to be flawed either because of doubts about the reliability of the data; because they are limited to a single industry; because time periods covered are short; or because their econometric models were defective.
- It seems highly unlikely that CK's main theoretical argument—that many firms are not wage-takers but have monopsony power over wages—would have an application in practice that would be sufficiently strong to lead to higher employment overall following an increase in a minimum wage.
- The potential adverse costs from minimum wages, include the likelihood that the wider community will be worse off because there are fewer employed and fewer with the opportunity to get work experience (the CK acknowledgement that "if the minimum wage is raised too much we will see job losses" highlights the risk of using the minimum wage as a policy instrument). Another cost to the community is the loss of the lower prices for non-traded goods and services produced by low-cost labour.

Accordingly, particularly for Australia where the minimum award wage is already high by international standards, the 1946 plea by Nobel Laureate Stigler—for economists to be "outspoken, and singularly agreed" that increases in the minimum wage reduce employment—should be the basis for wages and employment policy. Indeed, employment is best encouraged by allowing wages to be determined by the market and the idea of trying to increase it by freezing minimum wages is strongly opposed. Wage freezes would be difficult to sustain in practice and, most importantly, would risk entrenching the existing regulatory arrangements, possibly even enhancing the role of the AIRC. The case for moving to a market-determined wages policy is enhanced by the fact that, contrary to widely held perceptions, the minimum wage is both ineffective and inefficient as a welfare measure to assist low wage earners:

- Wages provide a very small proportion of the income of those households in the lowest quintile, with most coming from a social security system that has been ensuring little change in income inequality.
- As more than half of low-wage earners are located in the top half of household incomes, any increase in the minimum wage actually increases the inequality of incomes as well as being very poorly targeted from a welfare perspective.

A decision to allow wages to be determined by the market could be made more acceptable at a political level if it included some form of additional social security assistance linked to and encouraging work for low wage earners in low-income households, and protecting their living standards. The availability of such additional income supplements would help secure community acceptance of the lower wages needed to enable employers to profitably increase employment of lower skilled workers. Given that Australia already provides social security assistance that is more extensive than in the US, the most appropriate course might be to adapt an existing benefit rather than introduce an earned income tax credit that is as "generous" as in the US.

To avoid any additional budgetary cost, such assistance could be financed by reducing social welfare benefits currently provided to higher income groups. Although that would be strongly opposed by some, it would have the offsetting attraction of offering increased employment and reduced unemployment, and the potential for further favourable employment effects from additional labour market deregulation.

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Source: Ann Harding and Sue Richardson-see text for detailed reference.