Papers from the
DEET-CEPR Conference:
Unemployment: Causes, Costs and Solutions
16-17 February 1993

Paper 1:
The Rise in Unemployment: An Analysis and a Program
John Quiggin

Paper 2:
Long-term Unemployment
Bruce Chapman, P.N. Junankar, Cezary Kapuscinski

DISCUSSION PAPER NO. 294
June 1993

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The Rise in Unemployment: An Analysis and a Program  
John Quiggin

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Paper 2:  
Long-term Unemployment  
Bruce J. Chapman, P.N. Junankar, Cezary Kapuscinska

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UNEMPLOYMENT

Unemployment has risen over the last 20 years. Before 1973 rates of unemployment in excess of 2 per cent were considered disastrous in Australia. In the 1974-75 recession, unemployment (on the ABS definition) reached 5 per cent, rising to 6 per cent later in the decade. After rising to 10 per cent in the 1982-83 recession, unemployment only briefly regained the 6 per cent level before the onset of the present recession. Unemployment is now around 11 per cent and even optimistic forecasts do not predict a return to 6 per cent unemployment significantly before the turn of the century. Along with the rise in the general level of unemployment has gone an increase in the proportion of long-term unemployed. Around 30 per cent of the unemployed have now been unemployed for more than a year, a proportion which will inevitably increase in the period following the recession (Chapman, Junankar and Kapuscinski). A similar pattern has been evident elsewhere in the OECD. A few countries (Sweden, Japan, the US) have exhibited partial immunity to the trend of rising unemployment, but all of these are now facing difficulties.

Economists have described the trend to rising unemployment in various ways, each of which has an implicit reference to some underlying analysis of the problem — it may be referred to as a rise in the natural rate of unemployment or the NAIRU (non-accelerating inflation rate of unemployment), as evidence of hysteresis, or even as a re-emergence of the reserve army of unemployed. The evidence on the competing models is still inconclusive. I have not sought to summarise it in detail, but rather to point to those features of the evidence which seem to me to be most relevant in formulating a policy program to deal with unemployment and particularly long-term unemployment.

Although there are some elements of validity in all of the analyses of unemployment mentioned above, and particularly in hysteresis models based on the notion of skill atrophy, it is argued in the present paper that the fundamental difficulty is a decline in the demand for labour. This in turn may be traced to the failure of the publicly financed community services sector to continue the expansion of the post-war boom, thereby compensating for the contraction of employment in older sectors such as manufacturing.

It is argued that both an active labor market policy and an expansion of community service employment, sufficient to generate a substantial reduction in employment, is feasible. A number of proposals for financing such a program are advanced.
Overt and hidden unemployment

In discussions of unemployment, it is customary to distinguish between measured and hidden unemployment. Perhaps the commonest way of drawing this distinction is to use the ABS definition (people who have looked for work in the past week) and the associated published estimate for measured unemployment, and to estimate measured unemployment by comparing cyclical peaks and troughs in the participation rate. The ABS measure replaced the previously more popular measure which was the number of persons registered for work with the CES. The ABS measure is useful as a guide to the state of the labor market, since in combination with the employment series it provides a measure of the number of active participants in the labor market and the number of jobs currently occupied. It also provides an internationally comparable measure of unemployment.

However, when we come to consider policies directly aimed at reducing unemployment, the ABS definition is less useful. The key distinction is between recipients of unemployment benefits (along with other benefits, such as sickness benefit, that may be used as a surrogate for unemployment benefits) and all other potential members of the labor force. The reason for drawing the distinction in this way is straightforward. The net fiscal cost of any measure which moves people from unemployment to employment depends, not on whether the person has looked for work recently, but on whether they are drawing a benefit. It naturally follows that job-creation and training measures targeted at the unemployed almost invariably focus on benefit status rather than on (self-reported) labor force participation.

The standard measure of hidden unemployment is also inappropriate since it is based on the implicit assumption that hidden unemployment is equal to zero at the peak of the cycle. This assumption has been appropriate when cyclical peaks involved general excess demand for labor, and very low rates of measured unemployment, but it is not useful as a guide to labor market policy today.

The critical question is whether employment growth will result in reductions in unemployment or in new entry to the labor force. Hence the group of ‘hidden unemployed’ must be considered as embracing all those who would enter the labor force given a sustained period of easy access to jobs. Any policy aimed at creating jobs will draw on this group as well as on those in overt unemployment.

The best evidence on the size of this group is provided by recent ABS surveys which have asked people whether they would like a full-time or part-time job. In the
September 1991 survey over respondents classified as 'not in the labor force' and estimated to correspond to 1.1 million people answered 'Yes' or 'Maybe' to this question. Of these 800,000 stated that they wanted to work and could start within 4 weeks (in some cases, subject to the availability of adequate childcare). Members of this large group varied widely in their attachment to the labor force. About 50,000 were looking for work, but failed to meet the ABS criteria for unemployment. A further 140,000 were discouraged jobseekers. This group of 190,000 would represent a minimal definition of the hidden unemployed, and is more cyclically variable than the class of potential workers as a whole. Only 120,000 people fell into one of these categories in March 1988. However, most members of these groups would be less effective in competition for jobs than those listed as unemployed, even the long-term unemployed.

Perhaps the largest reservoir of potential entrants is found among the 200,000 people (nearly all women) who stated that they wanted work, but did not look for it because of childcare commitments. About 155,000 people currently attending an educational institution were classed as wanting to work. Some of these are presumably attending primarily because they cannot find work. Others may be committed to study but willing to undertake part-time work.

In summary, the group of hidden unemployed ranges from 2 per cent of the workforce on the narrowest possible definition to more than 12 per cent on the broadest. Estimates based on cyclical fluctuations are generally at the low end of this range. The ABS category of persons with 'marginal attachment to the labor force' constitutes about 9 per cent of the labor force and is probably a good estimate of the size of the pool of potential entrants.

The rise in unemployment

The way in which the rise in unemployment is described has major implications for the analysis of the underlying causes and for possible policy responses. Two interpretations of macro-economic experience were based on the notion of a vertical long-run Phillips curve. These are summarised by the terms "natural rate" and NAIRU. In these frameworks, the "natural rate" is naturally thought of as more-or-less constant. The experience of the 1980s then creates the problem of determining why it has shifted over time.

1 To simplify expressions the fact that results are estimates derived from a sample survey is ignored in subsequent discussion.
The natural rate

The idea of a natural rate of unemployment gained popularity in the 1970s after the failure of attempts to exploit the short-run trade-off between unemployment and inflation embodied in the Phillips curve. The basic notion of the natural rate is that the workings of labor markets determine that, in equilibrium, a certain proportion of workers will be unemployed. If unemployment falls below this level for a sustained period, inflation will rise and accelerate.

In this framework, a rise in the natural rate of unemployment reflects a deterioration in the smooth functioning of the labor market. This may result from factors outside the labor market, such as a decline in the quality of new labor market entrants or from increased volatility in output (and hence factor) demand. However, it is more likely to result from various inappropriate forms of government intervention, such as increased minimum wages.

Economists using this analytical framework attributed the rise in European unemployment to various forms of ‘sclerosis’ that were held to have made European labor markets inflexible and to have held real wages above market clearing levels. Factors held to contribute to sclerosis include excessive trade-union power and laws restricting dismissal of employees.

Recent experience in the English-speaking countries gives little support for this view. Over the 1980s, Australia, New Zealand and the UK have all experienced numerous changes that might be expected to depress the natural rate. The ratios of unemployment benefits to real wages and of youth wages to adult wages have fallen. Wage dispersion has increased. The powers of unions have been constrained, particularly in relation to working conditions (aka restrictive work practices). There have been some new interventions. For example, restrictions on Occupational Health and Safety, imposed via legislation, litigation and regulation have generally increased. However, it is difficult to accept the view that the natural rate has risen because labor markets have moved further from the neoclassical ideal.

NAIRU

The term ‘NAIRU’ is associated with an analysis similarly derived from the breakdown of short-run Phillips curves, but without the emphasis on the underlying state of labor markets. Rather the emphasis is on the interaction between unemployment levels and the wage and price-setting procedures of firms and unions.

However, the NAIRU analysis is still inadequate because it identifies the possibility of resurgent inflation as the only constraint on reductions in unemployment. The experience
of the 1980s has revealed other potential problems that are at least equally important. The prolonged expansion in the United States was halted largely because of the difficulties associated with large sustained fiscal deficits. Fiscal deficits are ultimately constrained by the burden of public debt interest, although political constraints may operate earlier. In Australia and the UK, external balance problems and asset markets were important.

The most striking illustration of the inadequacy of an analysis based solely on the NAIRU is given by Australian experience. The present recession came at a time when (on Treasury estimates) the underlying rate of inflation had been declining for several years, and was at the lowest levels since the early 1970s. That is, the NAIRU was apparently below the 6 per cent levels prevailing at the end of the 1980s expansion.

As with natural rate models, the NAIRU approach seems naturally to predict a declining rate of unemployment, particularly for Australia. The changes in wage-setting procedures under the Accord have been very consciously directed at cutting real wages and restraining nominal wage growth. Econometric evidence supports the view that these changes have been successful.

Both NAIRU and natural rate models failed to predict rising levels of unemployment. A more positive interpretation of this result is that, given a continuation of current wage restraint, inflation is not a critical constraint on reductions in unemployment. Unemployment rates below 6 per cent appear to be consistent with stable inflation. It is necessary, therefore, to examine alternative models of the rising unemployment rate to determine the presently binding constraints on employment growth.

**Hysteresis**

Both the "natural rate" and NAIRU models were brought into use in response to rising inflation at given levels of unemployment. The most popular ideas used specifically to explain rising levels of unemployment are associated with the term "hysteresis". Hysteresis originally referred to the lagged effects of exposure to magnetic fields, by which a metal that has previously been exposed to a field is more susceptible to subsequent magnetisation.

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2 There has been a vigorous debate over whether the current account should be a policy target. I remain agnostic on this issue. It does not matter whether limits on expansion are imposed by the finite willingness of foreigners to lend to Australians or whether the expansion is halted by government policy before the supply of foreign credit becomes inelastic. The critical point is that expansion is ultimately constrained by the external balance.

3 This evidence has been disputed by some critics of the Accord, who argue that general economic trends would have forced similar behavior on unions even in the absence of the Accord. This alternative analysis also implies a declining NAIRU.
There are two main theories of hysteresis. Much academic attention has been focused on ‘insider-outsider’ models (Blanchard and Summers 1987, Lindbeck and Snower 1988), which basically represent unemployment as the result of excessively high union-determined real wages. In general these models are based on the case of firm-level bargaining, but it is possible to adapt them to industry-level bargaining. The idea is that unions (as representatives of employed workers) respond to changes in the level of unemployment rather than to the level of unemployment per se, since only changes in the level affect the interests of the employed. Hence, when unemployment reaches a high level, it will tend to remain there because real wages will be sticky.

A simpler alternative model emphasises the effects of unemployment on the unemployed themselves. The skill atrophy model of hysteresis (Möller 1990) stresses the loss of skills and demoralisation associated with unemployment. These losses imply that any policy that generates unemployment permanently reduces both the welfare of those who lose their jobs and the productive capacity of the economy as a whole.

Unlike the insider-outsider model, which concentrates on dynamics within the group of employed workers, the skill atrophy model has direct implications for long-term unemployment. It implies that a rising trend in unemployment will be associated with increasingly severe long-term unemployment, as a growing proportion of unemployed workers are marginalised.

The implicit assumption associated with the term ‘hysteresis’ is that episodes of high unemployment engender a greater likelihood of unemployment in the future. Evidence for this may be seen in the fact that once the level of unemployment has risen, the base level of unemployment appears to rise permanently. However, hysteresis is not the only possible explanation for this phenomenon. Suppose for example that labor supply is fixed, and that labor demand follows a declining trend to which is added a random variable with a unit root. Unemployment will then display persistence, in that innovations in the level of unemployment will be maintained permanently, but there will be no hysteresis. In particular, in this model, temporary job creation in periods of recession would be of no long-term value, whereas in the hysteresis model it would be useful.

At least some studies reported as tests of the insider-outsider model are in fact tests of hysteresis (or more generally of persistence) in unemployment. It is therefore useful to examine tests of the specific predictions of the competing models, rather than to take the obvious fact of rising unemployment levels, or statistical evidence of persistence, as evidence of a particular model of hysteresis.

The insider-outsider model has the implication that in systems where wage bargains
are made at the enterprise level, enterprise, rather than industry, profitability should be the key determinant of wages. This does not appear to be the case.

The main implication of the skill atrophy model is that the longer people are unemployed the less likely they are to regain unemployment at any given wage. It is well-established that the probability of leaving unemployment is lower for the long-term unemployed than for those who have been unemployed only a short time. However, an alternative explanation is that those with relatively attractive characteristics tend to be hired first, so that the long-term unemployed, as a group, are less employable than the short-term unemployed.

Selection bias is undoubtedly a contributor to the poor performance of the long-term unemployed. However, Layard (1987) argues that the behavior of relative employment probabilities in response to adverse shift in labor market conditions supports the skill atrophy model. He observes that, under the selection model, adverse shifts should affect the employment chances of the recently unemployed more severely than those of the long-term unemployed.

Even if the poor re-employment prospects of the long-term unemployed were entirely due to selection effects, there would still be a case for policy measures targeted at this group. The result that wages are largely unaffected by long-term unemployment implies that this group (who in most cases have been employed in the past) have become effectively irrelevant to the labor market. Policies which mobilised the long-term unemployed would therefore have a greater payoff in reinforcing wage restraint and equilibrating labor markets than policies targeted on the short-term unemployed.

The LEGO approach

A model, based on shocks to labor demand and supply is the LEGO approach, employed explicitly by Gregory and implicitly by others. In this approach, attention is focused on the types of jobs that are increasing and decreasing in numbers. Supply and demand adjustments are assumed to be primarily the results of exogenous shocks rather than responses to changes in wages, although it is accepted that sufficiently large changes in wages could bring about equilibrating adjustments.

If this approach is taken, the problem appears in the form of a slowdown in the demand for labor. Labor supply growth arising from rising population and a demographic structure biased towards youth has been fairly steady over the post-war period. Increasing
participation among adult women has been offset by declining participation of youth and men aged between 55 and 65. The problem is that demand for labor, after growing steadily in the 50s and 60s, has not risen sufficiently since about 1973. The result is a rising unemployment trend.

In discussing the decline in employment, attention has naturally been focused on those areas where jobs are disappearing, and most notably on manufacturing industry. Analysis of job losses in manufacturing naturally centres either on technological change or on competition from imports and particularly from the newly industrialising countries of Asia. Seen in this light, declining labor demand is the product of inexorable external forces. It would clearly be counterproductive to reject technological change. The use of tariffs or other protective devices against imports from developing countries seems not much more attractive in the current environment.

However, declining relative employment in manufacturing is nothing new. Manufacturing employment failed to keep pace with the growth of the workforce for most of the post-war period. Furthermore, technological change (at least as measured by total factor productivity growth) was faster in the 50s and 60s than at present. As for competition from newly industrialising countries, the 50s and 60s saw Japan (with a population as large as that of the 'four tigers' combined) achieve growth rates as fast as any seen in the 70s and 80s. The fact that manufacturing employment has moved from relative to absolute decline since about 1973 seems to reflect more the slowdown in growth in demand and output in general than any factor specific to manufacturing.

It seems useful instead to look at the expanding areas of the economy, which absorbed the labor force growth of the 50s and 60s, and to a lesser extent in the 70s, but failed to do so since 1980. The obvious candidate is public sector employment, particularly in the area of community services. Public sector employment grew in absolute and relative terms during the post-war boom. However, transfer payments grew more rapidly, so that the rise in public sector employment as a percentage of total employment was less dramatic than the rise in public sector outlays and revenue as a proportion of GDP.

The slowdown in public sector employment during the 1980s reflected the 'crisis of the state' of the middle and late 1970s. This was reflected first in an inability to maintain the upward trend in revenue as a proportion of GDP. With GDP growth itself slowing, the rate of growth of revenue declined. Initially, this led to a period of large deficits, but the unwillingness of capital markets to absorb these deficits, and the rising burden of debt led to a decline in expenditure growth. Although transfer payments had constituted the largest area of increased expenditure, they proved the most difficult to
constrain. Decisions taken during the post-war boom implied an expansion of ‘entitlements’, particularly for the elderly. Rising unemployment and, in many countries, rising rates of family breakdown implied an increased dependency ratio. Australian governments have taken more stringent measures than those in other OECD countries to wind back.

Australian general government outlays rose from 33 per cent of GDP in the early 1970s to 42.5 per cent in 1985-86 before falling back to 39.6 per cent in 1990-91. However, outlays in the main areas of public service good provision (defence, education, health, housing, energy supply, transport and communications) actually fell from the 70s onwards, declining from 18.6 per cent of GDP in the early 1970s to 18.3 per cent in 1990-91. The rise in outlays was concentrated in increased transfer payments (largely due to the rise in unemployment) and increased public debt interest repayments. For the OECD as a whole, public sector employment declined as a proportion of total employment in the 1980s, after rising steadily up to the middle 1970s, then stabilising.

Employment in the community services sector in Australia grew steadily over the 1960s and 1970s, rising from 10 per cent of the labor force in 1966 to 15 per cent in 1980. In the subsequent period growth has been slower, reaching 17 per cent in 1990. Continuation of the previous trend would have implied that about 20 per cent of the labor force should have been employed in community services today and perhaps 25 per cent by the year 2000. If such a trend had continued, the outlook for unemployment would be considerably less gloomy.

During the 1980s, the financial services sector took over from community services as the main growth area in employment. However, this growth now appears unsustainable. Technological change has greatly increased productivity as measured by transactions per worker. Hence, financial sector employment can continue to grow only if the number of financial transactions rises rapidly relative to real product. This is unlikely at the household level. Indeed, the steady increase in transaction fees gives households an incentive to economise on transactions and this has been reflected in declining employment in the retail end of the banking industry. Transactions by business can only be cost-justified if they increase the efficiency with which final output is produced. There is no evidence that this has been the case. Indeed, an attempt to estimate the contribution of financial sector capital and labor to private business productivity yields negative and insignificant coefficient estimates. The prospects therefore are for future contraction, or at best slow growth, in financial sector employment.
Responses to unemployment

Since the return of mass unemployment to the OECD countries in the mid-1980s, a variety of responses have been proposed or implemented. The experience of the late 80s and early 90s has not been encouraging for proponents of any of these responses. It seems likely that any successful response to unemployment must involve a wide range of different approaches. Two main approaches have been adopted in Australia. The first, dominant until the late 1980s, was based on a combination of macroeconomic expansion and aggregate real wage restraint. The second has been based on microeconomic reform and attempts to secure labor market flexibility. A third approach strongly advocated in some quarters has been based on encouraging withdrawal from the labor market by particular groups (eg migrants, married women, workers near retirement, teenagers). Although this approach has never been formally adopted it does appear to have influenced policy in some areas.

These policies have not delivered sustained reductions in unemployment and do not appear likely to do so. It is necessary to consider the reasons for their failure and to determine the positive and negative elements that might form part of a program to reduce unemployment.

Microeconomic reform and labor market flexibility

Since the mid-1980s, attention in Australia has been focused on microeconomic reform and labor market deregulation as policy responses to poor economic performance in general and unemployment in particular. This approach is closely associated with a 'natural rate' model of unemployment, and indeed such a model appears to have dominated policy formulation until very recently. It was reflected in the vigorous opposition to any form of countercyclical fiscal policy which was shared by both major parties until 1991.

The theoretical basis for this approach is that of textbook microeconomics. Under standard conditions (competitive markets, no scale economies, no externalities), the basic theorems of welfare economics show that government intervention can never be beneficial. The movement towards microeconomic reform rests on a faith that deviations from these underlying conditions are unimportant. This faith has been supported by some sophisticated arguments. For example, the theory of contestable markets was applied freely in the 1980s leading to a widespread view that private monopolies (except labor unions) were essentially benign. The case for reform has also been bolstered by public-choice theoretic arguments suggesting that even when markets perform badly, governments will generally
perform worse.

To the extent that there exists an empirical basis for this approach, it rests primarily on the experience of other Anglo-Saxon countries. Proposals for microeconomic reform have drawn a great deal of their support from the perceived success of reform policies in the UK since the election of the Thatcher government and in New Zealand since the election of the Lange government in 1984 and more particularly since the radical labor market policies of the Bolger government. Support for labor market flexibility has been strengthened by the relatively good experience of the US economy in the 1980s. During this period it was common for flexible US labor markets to be contrasted with the sclerosis seen as afflicting European economies.

The theoretical case for reform has been weakened somewhat over the last few years. For example, it is now generally recognised that the theory of contestable markets applies only under very special conditions. The appeal of public choice theory has been reduced by the very success of microeconomic reform, since the general implication of public choice theory was that such reform was impossible.

More importantly, experience has weakened the empirical support for the view that microeconomic reform will have a major beneficial impact on the economy and on unemployment in particular. British experience has been particularly disappointing in this respect. The initial slump in activity associated with the Thatcher reforms resulted in strong productivity growth, which was claimed as the first fruit of reform, but in retrospect appears to have resulted primarily from the bankruptcy of low productivity firms and the diversion of their workers into unemployment. When the economy recovered in the mid-1980s, it was widely claimed that an economic miracle had been performed.

These claims have not been borne out by subsequent British experience. Although it may be attributed in some respects to a series of errors in macroeconomic management, the performance of the British economy since 1987 can scarcely be regarded as miraculous, and is very reminiscent of the worst aspects of the 1960s and 1970s — stop-go in the domestic economy combined with inflationary surges and crises of confidence in the pound. New Zealand has had negative per capita economic growth since reform commenced in 1984. Nevertheless productivity has risen quite strongly because employment has fallen. In both these respects, New Zealand experience is very similar to that of Britain the early 80s, although the adjustment phase has been more painful. Current signs of recovery are being given the same optimistic interpretation accorded to the British economic recovery of the mid-1980s. However, there are few grounds for supposing that an expansion sufficient to recover the employment losses of the 1980s can be sustained.
Already, foreign exchange considerations have led the Reserve Bank to shift to a relatively contractionary stance.

US economic performance has been only marginally more encouraging for the advocates of labor market flexibility. The tenor of comparisons between the US and other world economies has been closely tied to the US business cycle. During the 1980s expansion, such comparisons were generally favorable to the US, emphasising American flexibility and Euroclerosis. When the US entered recession, commentary became much gloomier and emphasis was placed on the relative decline in US living standards. It is important to avoid either of these extremes.

The news on labor market flexibility is mixed. Despite a prolonged recession, unemployment has not exceeded 8 per cent. This is better than has been achieved in Australia or in most European economies. However, the price that has been paid is a dramatic decline in real living standards for workers, and particularly for low-income workers. Over the period since 1970 real wages for US workers have declined absolutely by about 10 per cent and relative to Australian wages by 50 per cent. Even allowing for the greater incidence of unemployment in Australia, the wage that the representative worker could expect to receive over her lifetime has fallen in the US relative to that in Australia. Thus, at least from the viewpoint of workers, the payoff to US-style labor market flexibility is not enough to justify the cost.

The fact that gains from general microeconomic reform are likely to be small is gradually being recognised in the Australian political debate. For example, Kasper et al (1980) proposed a package of reforms that was, on the whole, less ambitious than that of the IC (the Arbitration Commission was expected to be retained, with annual wage hearings along the lines that emerged during the Accord period). Kasper et al predicted that this package would generate an increase of real incomes of nearly 80 per cent by the year 2000, relative to the no change alternative. By contrast, the IC estimates the GDP gains from microeconomic reform at 6.5 per cent of GDP and the resulting employment gain at only 0.6 per cent. Clearly, belief in the dynamic benefits of reform has waned considerably since 1980.

Thus, even if the IC estimates were realised microeconomic reform could make only a marginal contribution to resolving Australia's unemployment problems. In fact, the IC estimates are almost certainly overoptimistic. Forsyth (1992) points out that the use of GDP as a welfare measure is inappropriate, since the IC forecast is based on a substantial increase in capital stock. At the margin, this must imply an increase in foreign indebtedness. Hence the GDP measure should be offset by the increased payments to
capital, leading to a welfare gain of less than 5 per cent.

A more fundamental problem is that the ORANI parameters used in these simulations have been selected in a manner that guarantees large estimates of gains. In essence, any policy that benefits the mining sector is bound to show up as highly beneficial. Most of the proposed reforms (such as cost reductions in electricity generation and rail transport, tariff cuts) do this and their direct benefits are correspondingly amplified by ORANI.

This effect is particularly important in relation to employment. Most of the microeconomic reforms considered by the IC involve either direct reductions in employment or diversion of resources away from labor-intensive industries. In order to generate a net expansion in employment, it is necessary that industries that benefit from reform, such as mining, should expand dramatically. The ORANI estimates are based on the assumption that such an expansion will take place.

To the extent that microeconomic reforms simply involve reductions in overstaffing, it is highly unlikely that they will generate net gains in employment. Overstaffing and featherbedding may be regarded as forms of wage subsidy financed either out of general revenue (in the case of public service agencies) or out of taxes on output, in the case of trading enterprises. Subsidies in this form will generally be less efficient and less equitable than more explicit subsidies, particularly those targeted at the unemployed. Nevertheless, in the absence of offsetting increases in other forms of wage subsidy, it is unlikely that the elimination of inefficiently designed subsidies such as overstaffing will generate a net increase in employment. Considerations of hysteresis suggest that at least some of the short-term loss in employment associated with reform will be permanent, or at least very long-lasting.

In summary, the case for microeconomic reform has been overstated in general. Even on the basis of these overstated estimates the claim that microeconomic reform will ultimately lead to large reductions in unemployment is untenable. The ultimate impact of the microeconomic reform program may well be to increase unemployment.

Economic growth and real wage restraint

The Australian unemployment debate in the 1970s was concerned with the relative importance of excessive real wages and inadequate demand as explanations for the unemployment level, then around 6 per cent. The advocates of the view that real wages are of primary importance have generally been accorded a win on points (Russell and Tease 1988), although confidence in this assessment has been undermined somewhat by the experience of the recent recession.
Russell and Tease estimate that, in the long-run, a 1 per cent reduction in real unit labor costs will lead to an increase in employment of 0.55 per cent. This implies that reductions in real wages will not be in the interests of labor as a whole. Indeed the analysis is consistent with the suggestion, derived from an observation of US experience, that a 30 per cent real wage cut would be required to bring unemployment back to moderate levels (an extrapolation of the Russell-Tease estimates would imply a 16 per cent increase in employment, sufficient to eliminate most overt and hidden unemployment). But, as already noted, the result would be that wages in total would decline despite greater labor input.

Reductions in real wages may be in the interests of groups particularly prone to unemployment. Even in this case, the argument that one man's wage increase is another man's job requires either that the two men should supply complementary, rather than substitutable, forms of labor, or that the transmission mechanism should not be one of factor substitution, but some other path (eg a profit squeeze).

The relative importance of factor substitution effects and more indirect effects via profits remains subject to debate. However, the view that employment responds to real wage changes via profit effects raises the difficulty that profits have remained strong in the recent recession, suggesting that this transmission mechanism is no longer of any great importance. If real wages have any significant effect on employment, it must be for reasons of factor substitution.

Whichever side of the real wage-demand deficiency debate is taken, a policy program that delivered rapid economic growth combined with stable or declining real wages would appear certain to solve the unemployment problem. Sooner or later, the real wage overhang would be eliminated by rising productivity. Moreover in the absence of a wage breakout, macro policy could be oriented to continued expansion until the point where full employment was restored and the economy reached its capacity constraint.

With varying degrees of emphasis on wages and growth, this idea formed the basis of Australian economic policy from the election of the Labor government to the late 1980s. The key policy instrument was the Accord. Although this was initially presented as a device for permitting non-inflationary growth through restraint of prices and nominal incomes it rapidly evolved into a real wage/employment trade-off. On the wages front, Russell and Tease estimated their model over the period 1967-87. Re-estimation of the model including the recession yields slightly different results. The coefficient on real unit labor costs remains stable, but the coefficient on GDP nearly doubles, implying that the sensitivity of employment to the total level of economic activity is greater than Russell and Tease recognized. This result tends, on the whole, to support the views of the 'real wage sceptics' of the earlier debate.
success was rapid, with the real wage overhang being completely eliminated. Real unit labor costs returned to the levels of the 1960s in about 1986 and have remained there ever since.

The initial success of macroeconomic expansion was also impressive. Economic growth reached 10 per cent in 1983 and remained strong through 1985. Employment responded well, rising by over 1 million between 1983 and 1989. The main disappointment was that unemployment was slower to respond with many of the new jobs going to new entrants to the workforce. However, the rapid response of participation to rising employment opportunities may be regarded as an indicator of previous hidden unemployment particularly among women.

Some difficulties with the policy mix of wage restraint and macroeconomic expansion became evident as balance-of-payments problems emerged in the mid-1980s. It became evident that wage restraint was at best a necessary and not a sufficient condition for continued expansion. However, the robust response of employment to the contraction of 1986 encouraged advocates of real wage restraint. It appeared that provided wage restraint was maintained, some degree of macroeconomic fine tuning was consistent with continued employment growth.

The experience of the recent recession undermined this view. Once again, real wages were not a problem. The principal cause of the recession was a policy reaction to booming asset markets. Obviously, the response was miscalculated and the depth of the subsequent recession surprised policy-makers. However, a more fundamental mistake was the assumption that monetary contraction could be used to restrain asset markets without a substantial employment response. This miscalculation rested on an overestimate of the beneficial effects of wage restraint and microeconomic reform.

In summary, real wage restraint might be expected to promote a reduction in unemployment both by its direct effects on factor substitution and profitability and by permitting a non-inflationary expansion of aggregate demand. However, the first effect is too small in relation to existing unemployment levels, unless real wage reductions of at least 10 per cent can be imposed. The difficulty with macroeconomic expansion has arisen from other (perceived) constraints, such as those associated with external balance. Whatever position is taken on the question of whether the current account could be a target of policy, it is clear that large current account deficits must ultimately be brought to an end, either by policy, by an increase in the interest rate facing Australian borrowers on world markets or simply by the absorption of Australian demand in interest repayments. Hence the possibility of a real wage blowout is not the only constraint on macroeconomic
expansion.

**Labor market withdrawal**

The ILO approach to the problem of rising unemployment focuses on the difference between the number of workers and the number of jobs available. An obvious solution to a problem of too many workers chasing too few jobs is to encourage as many as possible to give up the race. Popular suggestions have included restrictions on immigration, a return of married women to the family home, early retirement, retention of the young in education, or diversion to military service and support for those so minded to join the "counterculture."

Australia has been characterised by an increased tendency for the young to remain in education and for the old to retire early. However, these are only related in an indirect way to unemployment. In general, early retirement is the result of voluntary choices. These in turn reflect the generally favorable labor market experience of those now in their late 50s — entering the labor force at a time of strong demand and experiencing only a limited impact from the rapid rise in unemployment in the 1970s. Only in the 1980s did unemployment significantly affect members of this cohort. More significantly, the resulting withdrawal from the labor force has been offset by steadily increasing female participation. However, other countries have experienced a good deal of labor force withdrawal.

In general this approach does not appear to yield any benefits in terms of reduced unemployment. The most important problem is that labor market withdrawal reduces the demand for labor (because it reduces income and hence the demand for goods). A second problem is indicated by insider-outsider and reserve army models. People who leave the labor force altogether exert no downward pressure on the wages of those in work.

The only clear success for labor market withdrawal in reducing unemployment has been Switzerland which expelled large numbers of (mainly Italian) guest workers in the 1974-75 recession. The adverse demand effects were less important in this case because the Swiss economy is very open and because much of the income of the guest workers was remitted to their home countries. In addition, the potential re-admission of guest workers in the event of labor shortage meant that they continued to exert downward pressure on Swiss wages while being conveniently located outside the country. Few of these conditions apply to Australia, and most evidence suggests that immigration has very little effect on Australian unemployment.

Withdrawal policies directed at the domestic labor force are even less appealing. In particular they are antithetical to the values central to an active labor market policy. To be
effective, such a policy must be based on the premise of reciprocal social obligations on society to make work available to all and on the unemployed to actively seek employment.

If a LEGO model is to be of value in designing policy responses to unemployment, it must work on the demand for labor and not on the supply. A demand-side approach will be considered below.

**Alternative approaches**

There is room for disagreement with the analysis presented above. Nevertheless, it cannot be disputed that the measures described there have been tried and found wanting. Unless rates of unemployment in excess of 8 per cent are to be accepted as permanent, alternative approaches need to be considered.

**Active labor market policies**

The idea of active labor market policies gained increased acceptance in the late 1980s as bodies such as the OECD moved away from the doctrinaire position that freely operating labor markets would guarantee full employment. In a recent report, the OECD (1990) argued:

The challenge for policy-makers has been and will continue to be to reconcile these needs for social protection with the efficient and smooth functioning of labour markets. Social protection solely in the form of entitlements to income transfers, and perpetuated over a long period of time, carries the risk of discouraging re-entry into labour market activity - and thus obstructing labour market adjustment. Hence policy has moved recently to harness income support payments to encourage rather than constrain labour market adjustments.

The active labor market approach is most naturally associated with a hysteresis model of rising unemployment, particularly one based on skill atrophy. The main elements of the approach are interventions aimed at mobilising the long-term unemployed. The implied contrast is with passive policies involving income support, and frequently associated with disincentives to training and other forms of labor market participation.

The main forms of active labor market policies are training schemes, targeted wage subsidies and direct job creation. The relative merits of the different types of
scheme have been discussed by Stretton and Chapman (1990). Targeted wage subsidies are typically paid to employers who hire people who have been unemployed for some period such as 6 or 12 months. Job creation ranges from pure 'make-work' to community projects normally selected on the basis of a high reliance on fairly unskilled labor. However, at least in Australia, jobs are normally short-term and selected so as not to suggest competition with the regular public workforce.

The general conclusion of the Stretton-Chapman analysis is that whether direct job creation or wage subsidy schemes are to be preferred depends on the stage of the economic cycle. It is argued that wage subsidy schemes are likely to be less beneficial to the long-term unemployed in periods of high unemployment, when many high-quality workers with relatively short periods of unemployment are available.

A dimension of active labor market policy that has received rather less attention is universality. Income support for the unemployed is normally universal, in that it is received as of right by all those without work or other means of support. By contrast, in the absence of an explicit commitment to full employment, there is no general expectation that an unemployed person will become entitled to participate in some form of labor market program leading to re-employment. The only country where a general commitment of this kind operates is Sweden, although other countries have offered guarantees to particular groups (e.g., school leavers in the UK).

The crucial implication of universality is that it provides a basis for a model of reciprocal obligation. The social obligation to provide work for all is associated with an obligation on the unemployed to seek and accept it. Countries without a full employment policy, such as Australia, seek to impose such an obligation on unemployment beneficiaries, in the form of a 'work test'. However, when the number of unemployed consistently exceeds the number of vacancies, such a test must rely, not on the willingness of the unemployed to accept work, or even in any genuine sense to seek it, but merely on a requirement to go through the motions of applying for work. When applied in a stringent form, such 'work tests' are more likely to discriminate on the basis of ability to negotiate bureaucratic hurdles than to distinguish slackers from genuine job-seekers.

Assessments of the effectiveness of active labor market policies have varied. The standard procedure is to test whether participation in programs increases the chance of re-employment relative to those who do not participate. An obvious difficulty is that the two groups may not be similar to begin with. This problem referred to as 'selectivity bias' is one of the current vogue issues in empirical labor economics and studies of labor market policies have used a variety of techniques to correct for it. A more subtle difficulty
arises in the case of a universalist policy. Because it involves reciprocal obligations, it may influence the re-employment probabilities of those who do not participate in the program as well as those who do.

Studies of the Swedish labor market programs have generally found little evidence that participants are differentially likely to be re-employed (see the survey by Bjorklund 1990). By contrast, Stretton and Chapman and the studies they cite generally find positive effects for Australia. One possible explanation is that the Swedish program is universalist whereas Australian programs are not. Indeed, in Sweden the number of participants in programs has generally exceeded the number in overt unemployment (by a factor of 2.2 in 1988). In this context, the claim that programs affect the employment prospects of all the unemployed and not merely those directly engaged appears plausible. By contrast, in Australia at the same time only about 20 per cent of the unemployed were involved in programs.

Despite the equivocal results mentioned above, the Swedish active labor market policy was associated with very low rates of overt unemployment. Even taking into account those in labor market programs, the rate of unemployment remained below 5 per cent for most of the 1980s. Calmfors and Forslund (1991), on the assumption that labor market programs have no human capital effects, argues that they are counterproductive, since they raise the reservation wage of those in work. To make this argument stand up, it is necessary to accept the proposition derived by Calmfors and Forslund that Swedish real wages are exceptionally responsive to overt unemployment and that, by coincidence, active labor market programs have been pursued most vigorously in the one country where they are unnecessary.

An alternative is to look for another factor explaining Sweden's good record on unemployment. The OECD (1992) argues that Sweden's high levels of public employment and high growth in public employment may provide the explanation. This issue is considered below.

Expanded public sector employment

The most obvious remedy for unemployment is to hire more people. The LEGO analysis presented above, suggests that the failure of demand to keep up with growth in the potential workforce may be traced to the failure of the community services sector to continue the growth of the 50s and 60s.

One explanation for this failure would be that the anticipated growth in demand for community services failed to materialise and that demand shifted back towards market
goods and services. Although the assessment of demand for public goods is a complex issue, this explanation seems implausible. Constraints on spending on health, education, police services and other community services have not been supplied in response to public expressions of satiation or even to an expressed judgement that tax cuts are more important than maintenance of expenditure. Rather they have been imposed by political elites on a basis of claimed economic necessity.

An increase in public sector employment, financed by taxation, may be analysed as a shift in demand, resulting in a greater intensity of demand for domestic labor. As a first approximation, the whole of the increase in public sector spending may be assumed to increase the demand for domestic labor. The offsetting affect of the tax increase on the demand for labor is given by the marginal propensity to consume domestic products multiplied by the labor share of output in domestic production. If the labor share of domestic production is around 0.65 and the import share in marginal consumption is around 0.3, the offsetting impact is about 0.45.

However, it is necessary to take account of the additional demand of those who obtain employment. If it is assumed that the economy is operating subject to a balance-of-payments constraint, with aggregate demand being adjusted to meet this constraint, a version of the balanced budget multiplier argument (see Appendix) shows that the net employment gain is equal to the initial increase in demand for domestic labor. The basic point is that, since the additional public demand is applied entirely to domestic labor, the level of private demand consistent with external balance (or with any given balance-of-payments constraint) is unchanged. In this case application of the simplest form of the LEGO approach is justified.

The offsetting impact of public sector expansion on private employment lies between zero (if the full balanced budget multiplier effect applies) and 0.45 (if the first-round increase in demand goes entirely into increased saving). I will assume an offsetting impact of 0.25.

There are a number of constraints on a program of increased public sector employment. First, as already noted, it is necessary to take account of impacts on external balance. However, because of the demand-switching effects of increased public sector employment the initial impact will be to reduce import demand. Hence the program is consistent with sufficient relaxation of monetary policy to allow aggregate private demand to remain unchanged. Second, there is the requirement for fiscal balance. Although countercyclical deficit financing may be desirable, the unemployment problem is present over the long term and any response must be fiscally neutral in the long term. As will be
argued below, a program sufficient to generate large reductions in unemployment could be financed. Finally, it is necessary to take account of effects on labor discipline. If, as was feared during the 1980s, employment growth results in a real wage breakout, or alternatively in slackening productivity, it will ultimately prove untenable.

The experience of the Accord suggests that, at least as long as memories of high unemployment are strong, and rewards in the form of employment growth are forthcoming, real wage restraint can be secured even with tighter labor market conditions. The possibility of slackening productivity is real. However, it should not be overstated. The retrenchments of the 1980s have greatly increased the discipline imposed on the general workforce, particularly in the public sector (there has been an offsetting increase in slack for private sector senior management). This increased discipline is unlikely to be reversed rapidly.

However, the primary constraints are political. An expansion of public sector employment can only be financed by an increase in taxation or a reduction in transfer payments and public consumption of goods and services. Even in the presence of a consensus on the general desirability of higher taxes and levels of public services, agreement to particular increases in taxation, or to cuts in particular transfer payments will be difficult to obtain.

Nevertheless, I believe the principal political obstacle to a serious assault on unemployment is the general belief that nothing can be done. If a program were widely agreed to be a workable route to substantially lower unemployment, I believe it would ultimately secure the necessary political support. I have therefore sought to describe the outlines of such a program.

A program for full employment

In order to consider the scale of action that might be feasible, consider a program aimed at increasing total employment by 500,000 above the level that would prevail with a normal cyclical recovery. Such a program could be implemented over a period of about three years. Hence, if the cyclical recovery generated a rise in employment of 300,000, the target would be a total increase of 800,000. Such a rapid rate of increase has not been achieved in the past, at least since the beginning of WWII. However, there has been no recent period when the level of unemployment has been as high as at present.

Assuming that a normal cyclical recovery would result in an overt level of unemployment around 8 per cent and hidden unemployment of 2.4 per cent, this would correspond to a total unemployment level around 6 per cent and a measured unemployment
rate around 4 per cent. Although this level is high by the standards of the post-war boom, it could reasonably be regarded as full employment by the standards of earlier or later periods.

A program for full employment would consist of two main elements. The first is an active labor market policy, centred on a job guarantee. The job guarantee would be available to all long-term unemployed people (at least initially, this could be defined as unemployment for a period of twelve months). The forecasts of Chapman, Junankar and Kapuscinski (1990) suggest that, even under favorable labor market conditions, long-term unemployment will remain above 250,000, and probably above 300,000, into the mid-1990s in the absence of a change in policy.

The job guarantee would be implemented through a combination of direct job creation and wage subsidies to employers taking on long-term unemployed workers. I assume that in each case, employment is guaranteed for one year. These measures could be supplemented by an expansion of training schemes for the unemployed, although here it might not be desirable to target the schemes on the long-term unemployed.

The second main element would be an expansion of employment in publicly financed community services. This would not be targeted directly at the unemployed, but there would be an attempt to design new jobs that would permit a transition into the permanent workforce from direct job creation and training schemes. Although the majority of the new jobs would be in the public sector, the distinction between, say, a teacher in a state school and one in a publicly subsidised private school, is not critical here.

The main areas of expansion in community services would be health, education and public safety. All are currently subject to severe pressure as a result of increasing demands and the expenditure cuts of the last decade. Indeed, much of the 'expansion' proposed here would simply involve preventing cuts in services that would otherwise take place, particularly at the state level. If the program of expanded public employment proposed here were implemented entirely through grants to the states, it would only restore them (in real, per capita terms) to the level prevailing in 1983-84.

An increase in employment by 500,000 might therefore be achievable with the creation of 250,000 new public sector positions and the generation of 250,000 short-term jobs via wage subsidy schemes and job creation/training programs. There would be some offsetting effect on private demand for labor arising from the tax increases and

footnote: This comparison is not exact, since some funds which were part of general grants are now allocated in different ways. Nevertheless, it reinforces the point that the growth in community services proposed here is no more than might have been expected in the absence of the crisis in public funding.
expenditure savings needed to offset this increased demand. The offset of 0.25 assumed above suggests that a loss of about 125,000 market sector jobs might be expected. However, this could be offset out through measures to reduce wage costs to public and private employers. Such measures could include replacement of payroll tax with other forms of company tax (as proposed in Fightback) or general reductions in company tax (as proposed in the Investing in the Nation statement). The former approach appears preferable.

Costs

Employment provided through the public sector could be expected to incur gross costs around $35,000/yr/employee, allowing for salaries (at about median weekly earnings), on-costs (assumed at 20 per cent) and some additional equipment expenses ($5000/yr/employee)\(^4\).

Increased tax receipts (both income and indirect taxes) would recoup about $7000/yr/employee. In addition, about 50 per cent of the extra jobs would go to previous recipients of DSS allowances (or their spouses). An average saving of $10,000/yr would arise for each such person, implying a saving of $5000 per new job created. The budgetary cost would thus be about $23,000/yr per new position created.

Employment on short-term job creation schemes and via wage subsidy schemes would have a somewhat lower cost, but could also be expected to provide lower benefits in the form of increased output. From the analysis of Chapman and Stretton, the typical net expenditure on these schemes would be about $9000 per position created.

On the calculations above, a scheme providing 250,000 jobs in each category would require additional annual net public expenditure of about $7.5 bn.

Financing — Expenditure Savings

Since this would be a structural increase it would have to be met either by reductions in outlays or by increases in taxation. In considering reductions in outlays we are constrained to allow only for savings in non-labor costs (since any savings achieved by reduced employment would require additional employment elsewhere to achieve the desired net gain). Thus savings must be derived from reductions in transfer payments or purchases.

\(^4\) The level of additional expenses proposed here is lower than the average for public employees as a group. The main assumption is that an increase in employment can be achieved without substantial expenditure on new buildings. In the case where the employment gain is achieved by avoiding costs that would otherwise take place, the only cost is the salvage value of existing facilities. In other cases, it will be necessary to direct expenditure so as to achieve greater labor-intensity.
of goods.

1 will follow budgetary convention and classify as reductions in expenditure any offsets to outlays achieved through cost recovery and as increases in taxation any tightening of tax deductions. The following areas appear as potential sources of expenditure savings:

Defence Equipment and Facilities: Outlays in this area have increased substantially in real terms over the 1980s, despite the disappearance of our main potential adversary. Current long-term outlays are predicted to run about $4.5 billion/year. A reduction of $500 m would be consistent with maintaining the level of defence preparedness of ten years ago. Given the reduction in apparent threats, a short term cut of $500m/year and a long-term reduction of $1 bn/year seems feasible. The majority of this reduction would come directly off net imports.

Education: Despite the introduction of HECS, the subsidy to participants in higher education remains large and regressive. It is combined with a limitation in the number of available places due to constraints on the available subsidy. A doubling of the current HECS contribution would raise the nominal student contribution to 30 per cent of the cost of higher education (the contingent nature of the charge and the absence of interest make the real cost lower). Assuming an accompanying increase in the number of places, a doubling of the HECS charge could be expected to raise about $500m/year in the medium term and up to $1 bn/year in the long-term.

Industry Assistance: Outlays on industry assistance currently total about $3.5 bn/year, very little of it in forms that might be expected to promote employment. The largest single example is the diesel fuel rebate scheme, costing over $1bn/year. Although part of this rebate is justified by the fact that it applies to fuel used off-road, and in remote areas, some part of the excise must be regarded as a contribution to general revenue and as an externality charge for the global effects of fossil fuel use. A reduction in the rebate to 20c/l would save about $350m/year.

Roads: The need for a proper system of cost recovery for the damage imposed by heavy vehicles has long been recognised. Such a cost recovery system could be expected to raise as much as $1 billion/year.

Social Security: The anomaly by which women become eligible for old age pension at 60 while men become eligible at 65 is overdue for elimination. If the pension age for women were raised to 65, long-term savings of about $300 m would be generated. Further tightening of asset and income tests and further restrictions on eligibility for recent migrants for age and other pensions could save between $200m and $400m.
These measures would generate medium-term expenditure savings of nearly $3bn, with the potential to save a further $1 bn in the long term.

**Financing — Tax measures**

The most obvious requirement in the taxation area is that the large real income tax cuts proposed in both the Fightback and One Nation package should not be implemented. Both packages presented income tax cuts calculated to be the absolute maximum feasible. I will take indexation of the existing tax scales as the baseline, and describe tax changes to the existing system assuming subsequent indexation.

**Foregoing tax cuts:** Replacing the tax cuts proposed in One Nation with indexation of the existing tax scales would save about $3 bn.

**Increase in the top marginal income tax rate:** The dramatic reductions in top marginal tax rates over the 1980s have yielded little apparent benefit. If the top marginal tax rate were raised to 50 cents in the dollar, a revenue gain of over $1 bn could be achieved. This measure would be consistent with an increase in the company tax rate to 50 per cent, in order to finance the abolition of payroll tax. If a rate of 60 cents in the dollar were reintroduced on incomes above $75,000 it would generate an additional $1.5 bn on the basis of the existing tax statistics, although this might be eroded somewhat by avoidance and evasion. The resulting top marginal rate would apply at a higher real level of income than that which would have prevailed under indexation of the 1982/83 tax scales.

A wide range of further measures could be considered in the taxation area. These included the elimination of negative gearing, restrictions on the exemption of principal residences from capital gains taxes. It is difficult to obtain an estimate of the potential revenue gains here, but they would be substantial.

Tax subsidies for superannuation, accruing primarily to the wealthy, currently cost several billion dollars a year. A scheme along the lines of that proposed in Fightback was estimated by the Department of Finance to save about $600m. Elimination of the favorable tax treatment of wine, by which, unlike other alcoholic beverages, it is exempt from excise tax, could raise as much as $300m/year.

**Financing — Summary**

Although the task of raising an additional $7.5 billion a year would involve sacrifices on the part of those in employment, the price would be small compared to the social costs
of continuing mass unemployment, and they would be offset by improvements in community services (or, in many cases, preservation of services that would otherwise be lost). The measures discussed above would be sufficient to release net expenditure of more than $10 bn in the long-term so that only a subset of them would be needed to finance the proposed program.

The impact on the public sector as a whole would be to raise outlays and revenue by around 1 per cent of GDP and to raise public consumption by around 2 per cent of GDP relative to the anticipated trend. This would still leave outlays and revenue below their peak levels and public consumption only marginally above the levels prevailing in the early 1970s.

The cuts in transfer payments and increases in taxes proposed would affect demand, but this would be largely, if not wholly offset by increased demand arising from higher public sector employment. Cuts in defence equipment programs would be particularly desirable, since they fall primarily on imports.

The measures proposed here would be consistent with moves to remove payroll tax and replace it either with a higher level of company tax or with an income tax surcharge specifically allocated to the states.

The Australian case

Many of the arguments presented above are applicable to the OECD countries as a group. However, for a number of reasons, Australia is particularly well-placed to benefit from a program of the type proposed here.

First, our present expenditure on active labor market programs is remarkably low compared to that of other OECD countries, suggesting that many of the most favorable opportunities remain unexploited. In the late 1980s, expenditure in active labor market programs made up only about 10 per cent of total expenditure on the unemployed. The ratio was higher in nearly all the of the OECD countries examined by Stretton and Chapman, and, in particular in all of the relatively good performers on unemployment. For Sweden it was 50 per cent, for the US nearly 50 and for Japan about 30. The only countries with a stance more passive than that of Australia (Belgium and the Netherlands) have fairly high absolute expenditures on active labor market programs, but these are outweighed by very generous benefit systems and chronically high rates of unemployment.

Second, Australia has a very low current inflation rates, and low inflationary expectations. The structural changes of the 1980s reduced the likelihood of nominal wage
inflation and the experience of the recession has almost certainly reinforced these changes. Provided that policies are targeted at the long-term unemployed, reductions in unemployment to levels below 6 per cent seem unlikely to engender a resurgence of inflation.

Third, and most importantly, the fact that Australia has a very tightly targeted welfare system means that outlays and revenues constitute a relatively small proportion of GDP. The efficiency obstacles to an expansion in public, and publicly financed, consumption are correspondingly smaller.

The political calculus is somewhat more complex. Historically, the universalist welfare systems of Northern Europe have generated strong popular support which has permitted them to achieve a somewhat greater degree of egalitarian redistribution despite their lack of targeting. This reflected the fact that, in targeted systems such as that of Australia, many voters have seen themselves as taxpayers but not as beneficiaries of the welfare state.

However, I believe that political support for a tax-financed expansion of community services and an assault on unemployment could now be forthcoming. In particular, the combination of the recession and structural changes in the economy have weakened the belief that unemployment is 'somebody else's problem.' Formerly secure jobs such as those of public servants and bank employees are now subject to the vagaries of the economy in much the same way as the building industry. The evidence of unmet needs for community services is also widespread.

Concluding Comments

Unemployment is the biggest challenge facing the Australian community today. Our response thus far has been inadequate. The current policy proposals of the major political parties will do little to change this.

The program proposed here is based on an analysis of unemployment arising from a failure to co-ordinate social needs and unemployed resources. It involves some sacrifice on the part of those in secure employment, arising from a small increase in tax and a redirection of public expenditure. However, for the majority of workers, the threat of unemployment is now real enough that such a trade-off may be politically acceptable. For many of those in secure employment, the possibility of social breakdown arising from sustained mass unemployment is now a more important concern than the top marginal tax rate. The details of the financing measures proposed here are not of course central to the argument. They are provided merely as an illustration of the kinds of measures that
would be required to finance a large-scale program aimed at raising employment and reducing unemployment.

Even if the analysis of the unemployment problem proposed here is not accepted, the need for an adequate response remains. This is unlikely to happen while the electorate is faced with a choice between policy packages aimed at delivering the maximum feasible tax cut to swinging voters.
Appendix - A LEGO Model of Labor Demand

The object of the model presented here is to show that, in a model with labor supply and real unit labor costs determined exogenously, a tax-financed increase in public employment does not affect the equilibrium level of private-sector demand and employment. We begin with the labor demand equation:

\[ L_d = \alpha_1 X + \alpha_2 G + \alpha_3 C + \alpha_4 I \]

where
- \( L_d \) = labor demand (endogenous)
- \( X \) = exports (exogenous)
- \( G \) = government consumption (policy)
- \( C \) = private consumption (endogenous)
- \( I \) = investment (exogenous)

Private consumption and import demand are determined by

\[ C = c Y_p \]
\[ M = m Y_p \]
\[ Y_p = Y + TR - T \]
\[ Y = C + I + G + X - M \]
\[ S = Y_p - C - M \]

where
- \( M \) = import demand (endogenous)
- \( S \) = private saving
- \( T \) = total tax revenue (policy)
- \( TR \) = the level of transfer payments (policy)
- \( Y_p \) = private disposable income
Y is income

We solve the model subject to the constraints

(7) \[ X - M = 0 \]

(8) \[ G + TR - T = 0 \]

(the reasoning is unchanged if the RHS of (7) or (8) is replaced by a constant, or a constant fraction of \( Y_p \))

The key result is

Result 1: The equilibrium values of \( C, M \) and \( S \) consistent with constraints (7) and (8) is independent of the policy variables \( G, TR, T \)

Proof: Combining equations (4), (5) and (8) yields

(9) \[ Y_p = C + I + X - M \]

Thus, \( G, TR \) and \( T \) may be eliminated from the system of equations determining \( C, M \) and \( S \).

This result is robust to generalisations of the model presented here. The simple linear forms used here may be replaced by nonlinear forms. Real interest rates may be included among the determinants of \( I, C \) and \( M \).

There are two critical assumptions, on which the argument is based. First, incentive effects of taxes and transfers are disregarded. Second, real unit labor costs are assumed to be determined exogenously. This permits the labor demand equation to be written in the simple form presented above.
References


Long-term Unemployment*

from Bruce J. Chapman, P.N. Junankar and Cezary Kapuscinski
[This paper was presented to the Centre for Economic Policy Research and Department of Employment, Education and Training's Conference on Unemployment, February 16-17, 1993.]

What follows is a brief discussion on the reasons for focussing strongly on long-term unemployment (LTU) in a consideration of employment policy. There are four parts: the presentation of the aggregate LTU numbers over the last 15 years; an explanation of the importance of LTU in conceptual terms; the examination of evidence relevant to the alleged consequences of LTU; and the offering of projections of LTU over the next four years.

(i) The data

It is important to note the strong tendency for LTU (defined as the number jobless and searching continually for 12 months) to increase rapidly about a year after the onset of recession, and for LTU to fall very slowly, even in an economy that is roaring (for example, LTU was about 180,000 in 1984, and had only fallen to just over 100,000 by 1989, even though the rate of job creation in this period averaged 3.6 per cent per annum). These two facts are very obvious from Figure 1.

Figure 1

Long Term Unemployment (Persons)

Source: ABS Cat. No. 6203.0
(ii) Why does LTU matter?

LTU is potentially an extremely important issue, in two regards: the distributional consequences of ignoring the LTU are fairly clearly strongly adverse (Jumankar, 1988); and, perhaps even more importantly, there are good reasons for believing that having a relatively high proportion of unemployment which is LTU is associated with major macro-efficiency problems, from the phenomenon of "hysteresis".

To take the first, members of the LTU are disproportionately from the least advantaged part of the labour force. In measured skill terms they are poorly endowed, and with each period of continuing joblessness are probably becoming more so, because of skill atrophy and attitudinal change.

Second, and a substantial issue for macro-economic management, is the question of hysteresis, a term used to reflect the possibility that the positioning of the non-accelerating inflation rate of unemployment (NAIRU) depends on the current and recent levels of the unemployment rate. In other words, continuing high levels of joblessness make it less possible for the economy to deliver low levels of inflation and unemployment in the future, essentially because a growing part of the unemployment pool becomes increasingly less relevant to employers.

Hysteresis can result from having relatively high proportions of the unemployed in LTU, for several reasons. The first is that if the skills of the LTU atrophy and/or their attitudes towards work deteriorate, or either of these two possibilities are perceived by employers to be the case, there will be an increasingly less likely match between the needs of employers in the filling of job vacancies and the available labour. This is associated with "state dependence", the decreased probability of workers finding employment as their unemployment duration rises.

A second and related reason for hysteresis is that if state dependence is occurring the LTU will become increasingly less relevant to the wage bargaining process because over time they are in reality, or in the opinion of
employers, less substitutable for the employed\textsuperscript{1}. This means that with high proportions of LTU in the unemployment pool, at any given level of unemployment a labour supply dominated by high levels of LTU will have less influence on wage restraint than an unemployment pool with relatively low levels of LTU.

Hysteresis poses a profound challenge to the efficient operation of the macro labour market. Its existence implies that continuing high levels of unemployment, associated as they are with growing - or at least not falling - numbers of LTU, augers badly for future policy making. Hysteresis implies also a more optimistic perspective: decreasing the rate of unemployment can set in place forces to "correct" the problems related to past poor employment experience.

(iii) Is there evidence for the existence of hysteresis?

Some of the best data on this issue are available in INDECS State of Play 7 (1992), which illustrates that the unemployment/vacancies curve shifted out in 1983/84 as LTU increased, and shifted in as LTU decreased at the end of the decade.\textsuperscript{2} There is good as well as bad news in these data, which is that reductions in the proportion of unemployment which is LTU can reverse the effects of adverse experience. Even so, it seems to be the case that the Australian economy is now characterised by a less efficiently operating labour market in a job match sense, even than it was in the late 1980s.

Hysteresis can also be observed in macro-economic modelling of the Australian economy. For example, Flatau, Lewis and Rushton (1991) find evidence for a positive relationship between LTU and the NAIRU in the 1967-89 period.

(iv) Projections

Given the obvious potential importance of LTU for policy, the projections made by Chapman, Junankar and Kapuscinski (1992) on the likely future course of LTU have been updated and these are now presented. For those

\textsuperscript{1}For an excellent discussion of these issues, see INDECS (1992), pages 81-88.

\textsuperscript{2}Similar evidence exists for these relationships overseas (Budd, Levine and Smith, 1988)
who are aware of the original work, there are two bonuses: an update of the data as a consequence of the availability of four additional quarters of information; and a testing of the predictive powers of the original model, to be used to illustrate how useful the exercise might be.

The results strongly support the original modelling, in that the four new observations of LTU, 1992 (I) to 1992 (IV), are close to what would have been predicted on the basis of the unemployment rates experienced in each of these quarters. These data are presented in Table 1, and they suggest that some confidence can be placed on the new projections given the similarity with the actual outcomes, particular after the first quarter of 1992.

<table>
<thead>
<tr>
<th>Period</th>
<th>Actual</th>
<th>Predicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992(I)</td>
<td>311</td>
<td>276</td>
</tr>
<tr>
<td>1992(II)</td>
<td>296</td>
<td>288</td>
</tr>
<tr>
<td>1992(III)</td>
<td>313</td>
<td>301</td>
</tr>
<tr>
<td>1992(IV)</td>
<td>331</td>
<td>328</td>
</tr>
</tbody>
</table>

The updated projections are presented now in Figure 2 and Table 2 for three scenarios of the possible future rate of aggregate (seasonally adjusted) unemployment. The low and high scenarios respectively subtract and add 1.5 per cent to the current (January) unemployment rate of 10.9 per cent, which is used as the medium (and assumed unchanging) scenario. That is, the low scenario has the unemployment rate declining to 9.4 per cent by the end of 1994, and the high scenario has the unemployment rate increasing to 12.4 in the same period.

The most important points from Figure 2 and Table 2 are as follows:

(a) Even if the economy grows strongly in the next few years (to reach an unemployment rate of 9.4 per cent by the end of 1994), LTU in absolute numbers will not be reduced below the 1992(IV) level of around 330,000 (which itself is three times higher than it was in 1990), the projection being around 360,000.
(b) If the rate of growth of the economy stagnates in the next few years, to
reach an unemployment rate of 12.4 per cent by the end of 1994, LTU numbers
will expand considerably, to reach upwards of 530,000; and

c) The difference between the two likely extreme scenarios reported above
implies that growth compared to stagnation would allow around 170,000
people to avoid LTU by the end of 1994, with the number increasing further
beyond that point.

The last of these issues is of most importance for the contemporary
macroeconomic policy debate. It implies that if the government elected on
March 13 sets in place policies that allow rapid economic growth, a very large
number of persons not currently unemployed for a long period will gain
employment rather than experience a lengthened period of continuing
joblessness.

Figure 2
Post Sample Projections of Long-term Unemployment: Persons (000s)
Table 2
Long Term Unemployment Projections: Persons

<table>
<thead>
<tr>
<th>Date</th>
<th>Low UR(%)</th>
<th>LTU(000s)</th>
<th>Medium UR(%)</th>
<th>LTU(000s)</th>
<th>High UR(%)</th>
<th>LTU(000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993(I)</td>
<td>10.9</td>
<td>399</td>
<td>10.9</td>
<td>399</td>
<td>10.9</td>
<td>399</td>
</tr>
<tr>
<td>1993(II)</td>
<td>10.7</td>
<td>387</td>
<td>10.9</td>
<td>395</td>
<td>11.1</td>
<td>402</td>
</tr>
<tr>
<td>1993(III)</td>
<td>10.5</td>
<td>387</td>
<td>10.9</td>
<td>401</td>
<td>11.3</td>
<td>416</td>
</tr>
<tr>
<td>1993(IV)</td>
<td>10.3</td>
<td>391</td>
<td>10.9</td>
<td>417</td>
<td>11.5</td>
<td>444</td>
</tr>
<tr>
<td>1994(I)</td>
<td>10.1</td>
<td>419</td>
<td>10.9</td>
<td>458</td>
<td>11.7</td>
<td>498</td>
</tr>
<tr>
<td>1994(II)</td>
<td>9.9</td>
<td>393</td>
<td>10.9</td>
<td>447</td>
<td>11.9</td>
<td>503</td>
</tr>
<tr>
<td>1994(III)</td>
<td>9.7</td>
<td>370</td>
<td>10.9</td>
<td>437</td>
<td>12.1</td>
<td>509</td>
</tr>
<tr>
<td>1994(IV)</td>
<td>9.4</td>
<td>362</td>
<td>10.9</td>
<td>445</td>
<td>12.4</td>
<td>536</td>
</tr>
<tr>
<td>1995(IV)</td>
<td>9.4</td>
<td>351</td>
<td>10.9</td>
<td>460</td>
<td>12.4</td>
<td>582</td>
</tr>
<tr>
<td>1996(IV)</td>
<td>9.4</td>
<td>355</td>
<td>10.9</td>
<td>471</td>
<td>12.4</td>
<td>604</td>
</tr>
</tbody>
</table>

To help on the growth side a possible stimulatory action would be a substantial cut in interest rates to allow a devaluation of the dollar and thus an expansion in demand of Australian goods and services. There is no evidence this is being considered as an option for the Government. Accordingly unless there are radical new approaches adopted to the problem, and given the persistence and short term intractability of long term unemployment, we do not expect significant changes over the next twelve months or so.

A bottom line from this analysis is that given the seriousness of the continuing LTU problem, and its likely adverse consequences for future macroeconomic management, there is a strong case for a radical rethink of current policy. The prospect of falling overall unemployment in the next few years will not be associated with lowered LTU, at least not within the boundaries of contemporary policy.
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