

Long Term Unemployment: The Case for Policy Reform

Bruce Chapman*

Abstract

Long term unemployment is now Australia's most difficult and costly labour market problem. This paper argues the case for a different policy reorientation to what has been followed in the past. The first conclusion is that in the absence of a substantial reorientation of policy long term unemployment will remain very high, with the absolute number staying above the level inherited from the 1982/83 recession – which was until the current recession the highest in Australian history. Second, the equity and macroefficiency costs of not doing anything radically different are argued to be very high.

A final part of the analysis considers the fundamental challenge of the Job Compact policy suggestion made in the Government's Green Paper on unemployment. However, the way in which the policy is to be instituted needs attention. It is likely that the use of the current JOBSTART wage subsidy scheme will not be enough to achieve the desired outcomes.

* Australian National University. This paper draws heavily on the report Long Term Unemployment: Causes, Consequences, and Policy Responses, commissioned from the author by the Department of Employment, Education and Training and released in December 1993. DEET has kindly given permission for the use of the material, this does not mean that the Department endorses its contents. Anthony Salvage assisted greatly on the research side.

1. Introduction

The Government has recently released the Green Paper, *Restoring Full Employment*, to be followed by public discussion leading to a White Paper on employment policy in the first half of 1994. Its essential focus is on the issue of long term unemployment, defined as jobless and continually searching for employment for 12 months or more.

The suggestion is made for a "Job Compact", in which those out of work for a long period be offered employment or training options. One of the choices would be that of a short-term job, say for a minimum of nine months or more. For those actively seeking work for a long period, the Compact would be close to a job guarantee.

The policy imposes a "reciprocal obligation". This means that if an employment or training offer is not taken up the individual will lose income support for a period. Under this new system it will not be possible to receive benefits for an extended time.

What follows considers the basis for such a policy reorientation. It does so by explaining the essential patterns in the data with reference to labour market theory. The first conclusion is that in the absence of a substantial reorientation of policy long term unemployment will remain very high, with the absolute number staying above the level inherited from the 1982/83 recession – which was until the current recession the highest in Australian economic history.

Second, an empirical and conceptual case is offered for doing something different to the past. This takes the form of demonstrating the equity and macroefficiency consequences of approaching the issue in the way as previously. The costs of "business as usual" are shown to be very high.

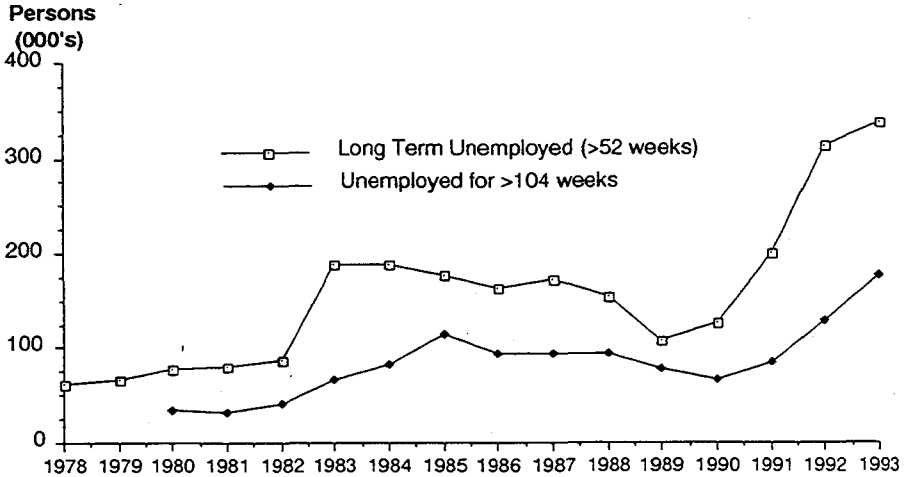
A final part of the analysis considers the fundamental challenge of the suggested policy change. The Job Compact needs to provide members of the targeted group the chance to regain mainstream and on-going employment. It is likely that the use of the current JOB-START wage subsidy scheme will not be enough to achieve this.

2. The Basic Aggregate Facts

Figure 1 shows total long term unemployment and very long term unemployment, with the latter being defined as jobless and continu-

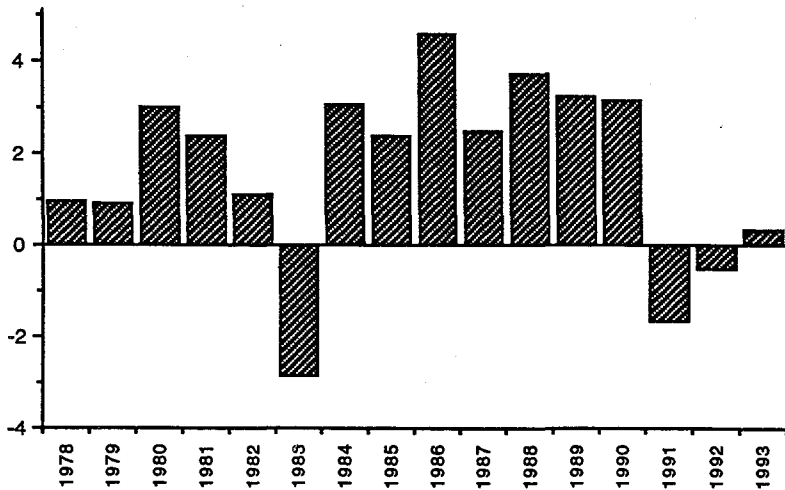
ally searching for employment for two years or more. In terms of understanding the basic causes of the problem reference to Figure 2 is useful, which shows the annual rate of growth of employment for the same period.

Figure 1
Long Term Unemployment and Very Long Term Unemployment:1978-93



Source: ABS 6203.0. The data are for August of each year.

Figure 2
Annual Percentage Growth in Employment: 1978-93



Source: Calculated from ABS 6203.0.

In combination the data allow an illustration of the connection between measures of unemployment duration and indications of the rate of change of the macroeconomic health of the economy. There are two basic facts.

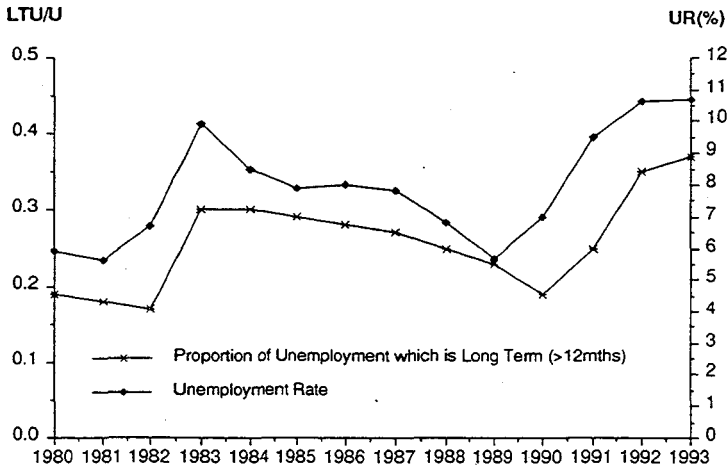
- (i) Long term unemployment and, with a greater lag, very long term unemployment, have increased considerably a short time after the onset of recession, where recession is reflected in the strong negative job growth of both 1982/83 and 1990/91. The absolute numbers more than doubled about two and three years respectively after the beginning of both the early 1980s and early 1990s economic downturns.
- (ii) Long term unemployment and very long term unemployment fell slowly in the recovery of 1984–90 when the average annual job growth was around 3.3 per cent, which is an unusually rapid employment expansion in Australia for a seven year period. The former decreased from the 1984 peak of about 200,000 to only reach about 110,000 in 1990, and the latter fell from just over 100,000 to about 70,000. Thus while over one and half million net jobs were created, the implications for long term unemployment and very long term unemployment were decreases of only about 90,000 and 30,000 respectively.¹

Other useful and related aggregate information is available through consideration of the relationship between the proportion of the unemployment pool which is long term and the unemployment rate. This is shown in Figure 3, which suggests that long term unemployment has a systematic but not straightforward relationship to the unemployment rate.

Chapman, Junankar and Kapuscinski (1992, 1993) have modelled and econometrically tested these associations, confirming both their existence and complexity. Their estimated coefficients are used in later analysis to project long term unemployment under a range of different scenarios for the rest of the 1990s.

In summary the evidence suggests something very important about the incidence of the business cycle on the labour force. Long term unemployment increases dramatically after the onset of recession but falls only slowly, even with rapid economic growth.

Figure 3
Proportion of the Total Unemployment Pool which is Long Term Unemployment and the Unemployment Rate



Source: Calculated from ABS 6203.0.

3. Explaining the Aggregate Long Term Unemployment Experience

In a healthy economy the vast majority of those unemployed for a short period find jobs. But in a recession, when there are fewer jobs being created, the short term unemployed are much more likely to be still jobless a year later. That is, the "inflows" to the pool of long term unemployment go up considerably.

As well, those who are long term unemployed at the beginning of a recession are unlikely to find employment in the next short period. In other words, the "outflows" from the pool to jobs are reduced (although there may be outflows from unemployment to other than the labour force – for example, retirement or to the resumption of formal education). The combination of higher inflows to and lower outflows from long term unemployment explains in a technical sense why long term unemployment increases so much not very long after the onset of recession.

There are several factors contributing to the low outflows from long term unemployment when recovery proceeds. As far as the

individuals are concerned, it is likely that they eventually reduce job search given a continuing lack of success. Moreover, many in the group lose contact with the world of paid work, which means that they have less information about upcoming jobs. The evidence suggests strongly that interaction with mainstream employment is a very important job search asset.²

Possibly more important is what potential employers think of the long term unemployed. It is rational for employers to use "signals" as to the likely productivity of job applicants, with one of these negative signs being how long a person has been out of work. Theoretical modelling from Totsche (1988) explains how this can be a useful way for employers to behave in the presence of costs associated with acquiring knowledge about the likely workplace characteristics of prospective employees.

That is, employers infer that those in the labour market with on-going unsuccessful search have demonstrated potential incapacities in some way in the past to prospective alternative employers. And with very high numbers of short term jobless, long term unemployed job applicants may have considerable trouble in showing the truth or otherwise of the presumption because of their difficulty in securing an interview for a vacancy.

Of course, it may actually *be* the case that the long term unemployed have lost skills and developed negative attitudes. It is reasonable to suggest that not being associated with mainstream paid employment for a long period decreases individuals' willingness and capacity to be motivated and productive employees. Panel and other data support this conjecture. (Lewis and Shorten 1992 and Rummery 1993).

The above means that employers' perceptions and the reality are reinforcing. Over time changes in the effectiveness of search, skill loss, and employers' use of unemployment duration as an indication of adverse characteristics all combine to push the long term unemployment to the back of the hiring queue. When the job queues grow very short – after a period of sustained buoyant economic activity – the re-employment probabilities of the group recover, but even the employment chances lie well below those of other job seekers.³

4. Prospects for Long Term Unemployment

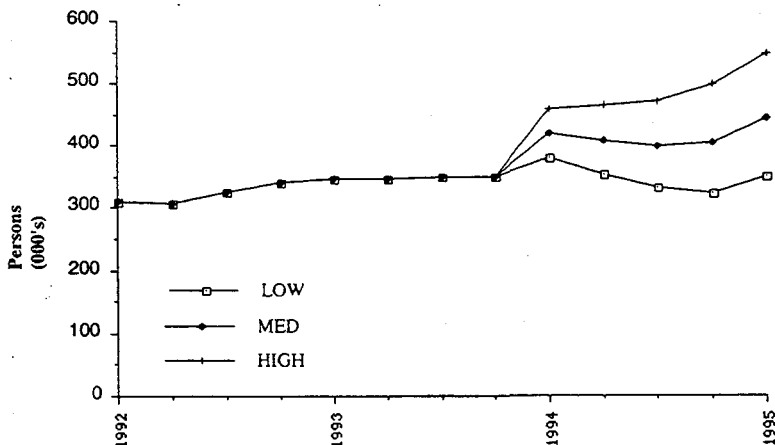
4.1 A Range of Projections for the Next Short Period

To show what the next short period might look like forecasts are now reported based on estimates from Chapman, Junankar and Kapuscinski (1992, 1993). The methodology is to use estimated relationships between the contemporaneous level of the proportion of unemployment which is long term unemployment and various lagged quarterly unemployment rates. The important assumption is that, because the data are based in the main on the 1980s experience, the projections necessarily reflect the basic relationships and policy of this previous period.

The estimated coefficients allow the projection of future long term unemployment on the basis of different possible unemployment rates, beginning in the first quarter of 1994. Three scenarios have been used, and are referred to as high, medium and low. They reflect seasonally adjusted unemployment rates respectively of 12.4, 10.9 and 9.4 per cent reached by the end of 1994.

Figure 4 shows the total levels of long term unemployment for these outcomes under the assumptions outlined, with Table 1 showing the actual data. Chapman, Junankar and Kapuscinski (1992) show breakdowns by sex estimated on a slightly earlier period.

Figure 4
Total Long Term Unemployed Projections



Source: Calculated from Chapman, Junankar and Kapuscinski (1993).

Table 1
Long Term Unemployment Projections: Persons

Year (Qtr)	Low	Med	High
1993 (4)	350,500	350,500	350,500
1994 (1)	378,823	417,868	458,070
1994 (2)	353,399	406,957	463,105
1994 (3)	330,298	397,538	469,419
1994 (4)	321,814	405,347	496,327
1995 (1)	349,507	442,871	545,942

Source: Calculated from Chapman, Junankar and Kapuscinski (1993).

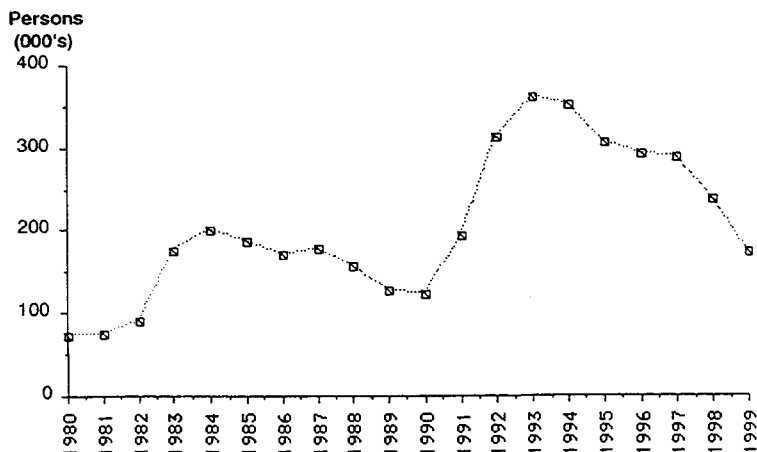
The most important points are as follows.

- (i) If the unemployment rate reaches 12.4 per cent by the end of 1994 total long term unemployment will number upwards of half a million by early 1995
- (ii) On the other hand, if rapid economic growth ensues over the next year or so, resulting in an unemployment rate of 9.4 per cent by the end of 1994, long term unemployment will not rise. However, its level will be about the same as the current number of around 350,000.
- (iii) The difference between the high and low scenarios illustrates the potential importance of economic growth for long term unemployment outcomes. That is, if the economy grows rapidly rather than stagnates about 200,000 individuals will not experience long term unemployment in the next short period. These data show just how important aggregate job creation has been in the past to the size of the long term unemployment pool.

4.2 An Optimistic Projection for the Rest of the 1990s

The challenge may be illustrated further by examining the implications of what is likely to be an optimistic counter-factual: the replication of the extraordinary job growth experienced in the 1984–90 period. Figure 5 shows the course of long term unemployment under the assumption that in the next seven years decreases in the unemployment rate are the same as those of a decade before.⁴

Figure 5
Total Long Term Unemployment Projections Assuming 1983–89 Job Growth is Reproduced in 1993–99



Source: Predicted from the equations estimated in Chapman, Junankar and Kapuscinski (1992). Cezary Kapuscinski did all the work.

If the policy approach to long term unemployment doesn't change over the next few years, even given the mid to late 1980s unemployment rate changes, there could still be about 200,000 total long term unemployed by the year 2000. This exceeds the number inherited from the early 1980s recession, Australia's previous highest level ever of long term unemployment. The clear implication is that unless a very different approach is adopted there is no way that continuing high levels of long term unemployment can be avoided, even given the obvious signs of recovery of the Australian economy at the beginning of 1994.

5. The Costs of Long Term Unemployment

There are two distinct reasons for concern with long term unemployment. They might loosely be referred to as distributional and macroeconomic.

5.1 Equity Issues

The first relates to the equity implications of recession. As emphasised above, it is that some members of the group disproportionately bear the costs of recession and share least in the benefits of recovery.

There is a related issue. There is little doubt that those affected are some of the most disadvantaged members of the labour force. (Junankar 1988 and Chapman and Smith 1992). Compared to the employed the long term unemployed have low levels of education, and are relatively more likely to be either immigrants from non-English speaking backgrounds or Aboriginal and Torres Strait Islanders. Even before members of the long term unemployed are in a situation of on-going unemployment they have poor labour market prospects.

A further distributional concern relates to the dynamics of individuals labour market experience. It is that over time the employed become increasingly different to the unemployed in several senses. The incomes of the former group typically increase, through real wage gains that average around 2 or 3 per cent a year⁵ because the employed acquire more labour market experience, move to better jobs⁶ and/or receive promotions.

However, the long term unemployed are not accumulating work experience, and are instead probably losing skills through non-use⁷ and a lack of access to technological improvements and on-the-job training⁸. In other words, the differences between the lifetime opportunities of the employed and the unemployed become greater the longer their respective labour market states remain unchanged. The initial employment status of the individual matters in terms of equality of access to jobs.

A different way of looking at this issue is by examining the "exit probabilities into employment" of people with differing levels of unemployment duration. While the aggregate survey data are generally not considered to be very satisfactory, some material from the Department of Social Security register is indicative. It suggests that in recent times the quarterly probability of a long term unemployed person gaining a job was less than six per cent, and of these the vast majority were leaving into the Government's wage subsidy scheme JOBSTART.

Thus the percentage of the long term unemployed gaining employment with no Government assistance seems to be very small, and less than a quarter of that experienced by the short term unemployed. And for the very long term unemployed the unassisted chances of finding employment are apparently close to zero.

There is an important debate in academic circles as to the meaning of the declining probabilities of getting a job as unemployment duration increases. The question is, is it because those with unemployment durations are those with poor inherent labour market qualities, or are there factors which mean that even those with good labour market qualities at the beginning of their unemployment spell eventually become unemployable because of the experience of continuing unemployment (an issue known as "state dependence")?

The study by Brooks and Volker (1986) using gross flows data suggests the existence of state dependence. For Chapman and Smith (1992), using the Australian Longitudinal Survey, the evidence is more ambivalent, but UK (Budd, Levine and Smith 1987) and other research using more broadly-based data generally find state dependence.

The existence of state dependence becomes important in a consideration of the appropriate policy response to high unemployment duration, since state dependence strongly suggests that there is a certain amount of random bad luck for those who eventually end up in the high unemployment duration pool. The experience becomes self-reinforcing – once unemployment duration starts to increase this fact itself increases the chance that it will become higher. A point for policy is that there is a chance that those unfortunate enough to experience on-going unemployment will not be able to find a way out of the jobless pool without some form of government intervention.

5.2 Macroeconomic Factors: The Unemployment/Vacancies Relationship

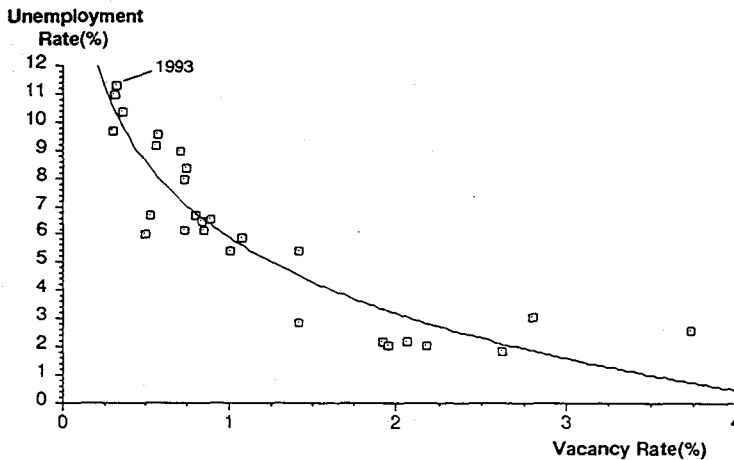
There are also macroeconomic costs associated with long term unemployment because it results in poor labour market outcomes. This will be the case if those with high unemployment duration become increasingly less relevant to employers in the filling of vacancies and thus less effective as an alternative labour supply.

It follows that there are potentially important implications for the efficient matching of applicants to new employment positions and with respect to the longer run trade-off between wage inflation and unemployment. As well as for the effective operation of macroeconomic policy there could be profound consequences for forgone output and government budgetary outlays.

The essential issues can be illustrated with reference to the Beveridge Curve, the relationship between unemployment and job vacancy rates. The positioning of the unemployment/vacancies relationship reflects the time it takes to fill new jobs because of the need for prospective labour and employers with openings to find each other.

It is widely accepted in labour market theory⁹, and found empirically in periods of relative economic stability, that there is a negative relationship between the unemployment rate and the number of unfilled job vacancies as a proportion of the labour force¹⁰. Figure 6 illustrates this with annual Australian data¹¹.

Figure 6
Annual UV Observations: Australia, 1967–1993.



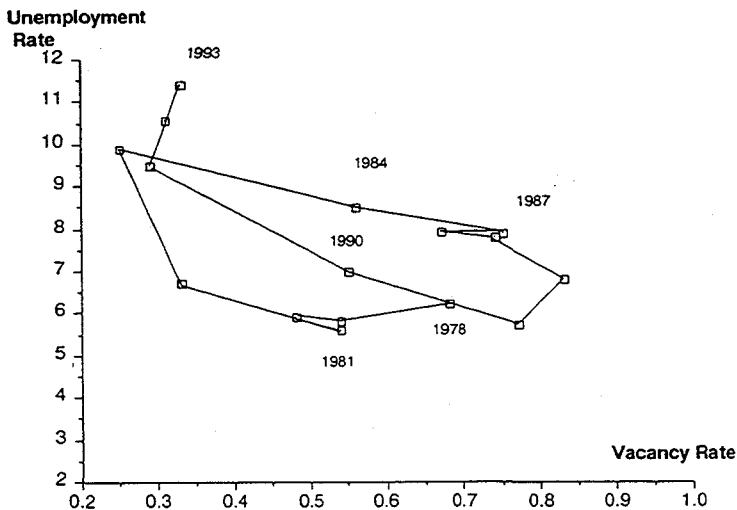
Source: ABS 6203.0 and ABS 6205.0.

Note: To illustrate the pattern more rigorously, the line shown was estimated with the equation $\log(\text{unemployment}) = a + b \cdot \log(1/\text{vacancies})$, with an R^2 of .85, and a t -statistic on the coefficient b of 4.62. This is an apparently strong relationship.

The unemployment/vacancies curve can be affected by changes in the proportion of the unemployment pool which has relatively long unemployment durations. The reason is that employers are likely to view the long term unemployed as poor employment prospects and that as a result members of the group will search less, and/or be rejected as potential new employees. It follows that at any given unemployment rate job vacancies will be filled less quickly – that is, at any given vacancy rate there will be a higher level of unemployment.

The adverse effect of increases in long term unemployment on the operation of the aggregate labour market has been demonstrated statistically for the UK (Budd, Levine and Smith 1987), the Netherlands, Spain, Italy, Belgium (Dreze and Bean 1990) and Denmark (Bjorn and Pedersen 1993) and less rigorously for a host of other OECD countries (OECD 1993). In Australia every econometric test reveals the same: increases in the proportion of unemployment which is long term makes the filling of vacancies more difficult, thus increasing the rate of unemployment associated with any given level of labour demand. Figure 7 (INDECS, 1992; Chapman, 1993) builds on this point with respect to the 1980s.

Figure 7
The Australian Unemployment/Vacancies Relation: 1978–93



Source: ABS 6203.0 and ABS 6205.0.

From the Figure it seems that Australia's unemployment/vacancies relationship shifted outwards considerably in the 1984–88 period, which is consistent with there being a decrease in the overall effectiveness of matching between vacancies and unemployment. Referring back now to Figure 1, these were the years when long term unemployment was particularly high as a proportion of total unemployment.

The important finding has been put succinctly by Fahrer and Pease (1993), who conclude that: "Over the 1980s, the increased incidence of long-term unemployment led to a decline in overall effectiveness, in turn causing the Beveridge Curve to shift further outwards" (page 25). Hughes (1993) concurs, noting that "...the impact of long term unemployment on the curve is significantly positive (ie it leads to more unemployment) is clear in the main Australian research papers" (page 9). In 1993, with the vacancy rate increasing but the unemployment rate not changing much, it seems that the economy is on the way to a repeat of the adverse mismatch experience that began in 1984.

The policy point is that if those with high unemployment duration have in reality lost skills, or even if that is just the belief of employers, the filling of jobs generally becomes more time consuming. It follows that policies which reduce long term unemployment would be associated with an expansion of employment, incomes and output. Consequently there would be increased tax revenue and lower public sector outlays of income support. Mismatch in the labour market can clearly affect us all

Some estimates have recently been offered for the possible extent of the shift of the unemployment/vacancies relationship as a consequence of the emergence of long term unemployment in the 1980s, a point taken up also in the Green Paper. In terms of decreases in the unemployment rate the numbers range from around 0.5 to about 1.25 percentage points (Hughes, 1993), but it should be recognised that such calculations are quite complex and should be considered to be illustrative only.

It is possible to use this range to address some questions pertinent to policy. They are: what are the implications for foregone output of the mismatch attributable to long term unemployment?; and what would be the consequences for government revenue and taxation

given the absence of the mismatch? The questions can be approached by imagining a hypothetical re-run of the 1980s in which there is a much more even distribution of unemployment duration, to the point of long term unemployment being eliminated.

The issues are addressed in an illustrative way in Table 2 by imposing a range of assumptions noted in Chapman (1993). In general the method uses conservative values on the parameters of interest, so that in an important sense the data can be considered to be understatements of the underlying potential for changing output from significantly improved matching.

Table 2
Illustrations of Possible Additional Employment, Output and Taxes, and Reduced Unemployment Benefits as a Result of Improved Job Matching (\$mil).

Decreased Unemployment (%)	0.5	0.875	1.25
Additional Employment (Persons)	43700	76475	109250
Additional Output (\$m)	786.6	1376.55	1966.5
Increased Tax Receipts (\$m)	110.1	192.7	275.3
Reduced Unemployment Benefits (\$m)	327.3	572.6	818.1
Decreased Structural Budget Deficit	437.4	765.3	1093.4

Source: Chapman (1993).

The data should be used with considerable caution, being illustrative only of the potential orders of magnitude involved from having poor labour market matching processes. They suggest that if substantial reductions in long term unemployment in the 1980s had had the effects estimated in the positioning of the unemployment/vacancies relationship, there would have been a considerable potential for increases in gross output. At the lowest shift in the curve the annual figure is of the order of \$790 million, increasing to almost \$2 billion at the highest, with the average of the two being about \$1.4 billion.

With reasonable assumptions concerning unemployment benefit payouts and increased income tax receipts, this suggests that the Government budgetary position could have been improved in a gross

sense by between \$400 million and \$1 billion per annum. These data are not dissimilar to the order of magnitude suggested by Hughes (1993) who argues that the figure is likely to be at least \$1 billion per annum. The above calculations are too high in the sense that they take no account of costs associated with the financing of programs in the reduction of long term unemployment, but low in the sense that the assumptions used to derive them are conservative.

There are caveats to the above. One is that the financing of programs required to decrease unemployment duration could have effects on the structure of macroeconomic relations. Further, the macroeconomic costs of poor mismatch can only be dissipated effectively with policies that genuinely change – and are perceived to genuinely change – the labour market attachment of the targeted group. This issue is addressed further in Section 6.

5.3 Macroeconomic Factors: The NAIRU

There is an even more complex macroeconomic issue than the above, related to the impact of long term unemployment on what is known as the "non-accelerating inflation rate of unemployment" (NAIRU), which is now addressed. A respected body of thought comes to this question with reference to the notion of "hysteresis", which refers to the idea that the sustainable unemployment rate – taken to mean the rate at which wage inflation has no tendency to accelerate – is conditioned by the current and past experience of unemployment.

Hysteresis is generally seen to be associated with a substantial proportion of the unemployed being disenfranchised from mainstream employment, and is often seen to be a consequence of there being large numbers of those with high unemployment duration. The basic point is that with high proportions of long term unemployment in the unemployment pool there is a less effective labour supply.

The reason for labour supply becoming less effective is that because of the perceptions or reality of skill loss from extensive unemployment duration, the long term unemployed are not particularly relevant to the wage negotiation process. The higher the proportion of the alternative labour supply that doesn't matter to the expansion plans of employers, the greater is the wage negotiation power of other labour – the employed, those with low unemployment duration, and even those not formally in the labour force.

Thus with high numbers of long term unemployment there will be a tendency for more inflation at any given measured level of unemployment because members of the group do not constitute an effective or relevant employment alternative. The relative power of the so-called "insiders" – those with wage negotiation power – is enhanced, which suggests that having groups with high relative unemployment duration has the potential to influence the most significant of macroeconomic concerns: how to keep wage inflation under control given the goal of sustaining low levels of unemployment.

The empirical significance of this issue is hard to judge. Even so, there have been many overseas and several Australian attempts to explain and measure the role of this factor in the positioning of the NAIRU¹⁹. Just about all of these have given a major role to the influence of long term unemployment.

Flatau, Lewis and Rushton (1991) find evidence of an effect of long term unemployment numbers on real wages. The point has recently been implicitly endorsed in a consideration of the history of Australia's Phillips Curve relation by Pitchford (forthcoming).

The implications for policy are serious. If a significant proportion of unemployment is considered not to be relevant to the filling of job vacancies, when the economy recovers employers will be competing for workers from a relatively small pool. This can eventually result in high levels of wage inflation and increasing real unit labour costs, even at high unemployment rates.

The above is consistent with the emergence of skill shortages in 1989 when the unemployment rate was 6 per cent, when before this an unemployment rate of this level would have been associated with skill surpluses. This implies that labour market bottlenecks and thus the potential for higher wage inflation could well arise in the next short period, even if the aggregate unemployment rate remains at around 10 per cent. Again, the clear implication is that of greater difficulties for management of the economy, forgone output, and higher than necessary budget deficits.

6. The Role of and Challenge for the Job Compact

The above discussion implies strongly that alternative approaches to policy need consideration. The costs of "steady as she/he goes" are very high, for the current long term unemployment, and the contemporary and future prospects for the operation of the macroeconomy. Moreover, there is no reason to believe that even radical changes to the industrial relations environment, as experienced in New Zealand in 1991, are likely to have any effects in the short run on levels of long term unemployment (Chapman, 1993; the Green Paper). The Job Compact suggested in the Green Paper is a possible answer.

6.1 *The Notion of Reciprocal Obligations*

An important part of the Job Compact is the notion of "reciprocal obligations" for members of the long term unemployed, with the justification being as follows:

- (i) To give them increased job and income prospects;
- (ii) To allow them the chance to demonstrate to employers work motivation, thus increasing their future employment chances;
- (iii) To offer them some prospects of the regaining and accumulation of informal on-the-job training; and
- (iv) To encourage them to take greater responsibility for their circumstance and to become more involved in employment and/or training planning by not allowing unemployment benefits to continue indefinitely.

The suggested new approach is a recognition of the desirability of reorienting labour market expenditure from the "passive" the "active". As explained in Chapman (1993), there is apparently scope in Australia for so doing, and even a doubling of expenditure on active areas would not result in a particularly high proportion relative to the past or most other countries.

6.2 *The Importance of Program Effectiveness*

A fundamental point concerning the desirability of the Job Compact is that to be effective the arrangement must ensure that members of the targeted group are brought back into the world of mainstream work for periods extending well beyond the duration of the initial employment experience. Without this the distributional benefits will

be temporary only, and the medium term gains to the economy peripheral.

Table 3 shows very simply just how potentially important program effectiveness can be for the gross output illustrations presented in Section 2. Gains are shown for different assumptions concerning the efficacy of active labour market intervention, given that the relationships are linear. There are now two parameters: the extent to which the unemployment/vacancies curve can actually be shifted through permanent reductions in the number of long term unemployment (assumed to range from 0.5 to 1.25 per cent); and the "effectiveness" of programs in terms of the proportion of the targeted group whose lifetime attachment to the labour market is changed (assumed to range from 0 to 100 per cent).

Table 3
An Illustration of Possible Gross Output Gains from Improvements in Program Effectiveness (\$m per annum)

Decrease in Unemployment (%)	0.5	0.875	1.25
Program Effectiveness (%)			
0	0	0	0
25	196.7	344.1	491.6
50	393.3	688.3	983.3
75	589.9	1032.4	1474.9
100	786.6	1376.6	1966.5

Obviously, completely ineffectual approaches have no implications for the correction of job mismatch, but there might be very large gains from having policies that are 50 per cent more successful in terms of the correction of mismatch. That is, there might be increases in gross output of the order of \$400 – \$1000 million per year, depending on the extent to which matching improves the workings of the aggregate labour market.

The data suggest that even at the low assumed levels of the potential to shift the unemployment/vacancies relationship in the

1980s, just a 25 per cent increase in the job matching success of labour market programs leads to a gross job matching efficiency gain of almost \$200 million per year, and the figure increases to almost \$500 million a year when the potential to influence matching is very high. This illustrates the extreme importance of instituting an active labour market strategy which works, and of having sophisticated monitoring and evaluation of programs in order that more effective strategies can be put in place when and if there is evidence of policy failure.

6.3 Additional and Alternative Employment Arrangements for the Job Compact

For the Compact the Green Paper stresses expansions of the current JOBSTART scheme. This program offers employers large wage subsidies for taking on members of the long term unemployed – around \$200 a week for up to six months. While this might appear to be an attractive proposition for employers, a potential problem is that the Compact is likely to apply in the first instance to those who have been out of work for three years or more.

However, some members of the targeted group include those who are least attractive to employers, since they will be in need of substantial on-the-job management and training. It could therefore turn out that a significant proportion would not be offered employment under JOBSTART. Some recognition of the above has resulted in the authors of the Green Paper, Chapman (1993) and others¹³ offering some supplementary employment ideas for the Job Compact.

An inexhaustive list is as follows.

- (i) Jobs could be delivered at a local level which entail home assistance to the frail or ill, or for Greening Australia;
- (ii) Private sector interests could be invited to tender for community projects that employ a certain percentage of the targeted group;
- (iii) There could be some reductions in company or payroll tax for firms making jobs available to the long term unemployed;
- (iv) Firms could be allowed some direct discretion in the employment of the long term unemployed from the use of funds raised as part of the Compact (Blandy, 1993);

- (v) The Government could help in the provision of finance for small businesses willing to take on the long term unemployed;
- (vi) There could be more direct involvement from the public sector, for example, through State and local governments being offered funds for community services expansion using the long term unemployed;
- (vii) Firms tendering for the provision of goods and services to the Government could be required to include the employment of some long term unemployed; and
- (viii) The Government could institute positive publicity for firms taking on the targeted group.

The next few months of public discussion, leading to the release of the White Paper, are critical. Useful contributions would be to offer further suggestions and acute analysis of employment possibilities designed to make the Compact effective. This will help set the scene for addressing constructively our most pressing labour market problem.

Notes

1. This is not to say that the individuals in long term unemployment and very long term unemployment were the same at the beginning and end of the periods.
2. This proposition is established clearly from the Australian Longitudinal Survey.
3. For evidence see, among many others, Jackman and Layard (1989).
4. Similarly estimated forecasts by sex are presented in Chapman (1993). They reveal the same patterns.
5. There are a host of cross-sectional earnings studies that illustrate this point. See, for example Gregory and Daly (1987).
6. Voluntary job movers typically experience pay increases, at least as manifested in both US (Mincer, 1988) and Australian (Rummary, 1993) studies.
7. For empirical analysis of the human capital depreciation effects of not working for pay, see Rummary (1990).
8. The link between technological change and training is explored theoretically in Tan (1980), and illustrated empirically in the US by Mincer (1988), in Australia by Chapman and Tan (1992) and in an internationally comparative exercise for youth labour markets in the UK, Australia and the UK (Tan et al 1992).
9. The most accessible treatment is in INDECS (1992).
10. For Australian evidence see Huges (1987, 1992) and Williams (1989).
11. The relationship has been confirmed recently with statistical tests from Hughes (1987, 1992), Williams (1989) and Fahrer and Pease (1993).
12. See Pitchford (forthcoming), and Lewis et al (1991).
13. See ACTU (1993), Brother of St. Laurence (1993) and ACOSS (1993).

References

- Australian Council of Social Services (1993), Submission to the Committee on Employment Opportunities.
- Australian Council of Trade Unions (1993), Submission to the Committee on Employment Opportunities.
- Australian Local Government Association (1993), "Submission on Long-Term Unemployment in Australia to the Commonwealth Government's Expert Committee on Employment and Unemployment", Institute of Applied Economic and Social Research, University of Melbourne, November.
- Richard Blandy (1993), *Achieving Full Employment*, Submission to the Committee on Employment Opportunities.
- Jeff Borland, Bruce J. Chapman and Malcolm Rimmer (1992), "Microeconomic reform in the Australian labour market", in Peter Forsyth (ed), *Microeconomic Reform in Australia*, Allen & Unwin, Sydney: 99–126.
- Brooks, Clive and Paul Volker (1986), "The Probability of Leaving Unemployment, The Influence of Duration, Destination and Demographics", *The Economic Record*, 62 (178): 296–309.
- Brotherhood of St. Laurence (1993), Submission to the Committee on Employment Opportunities.
- Budd, P. Levine and P. N. Smith (1987), "Long-term Unemployment and the Unemployment-Vacancies Relationship", *The Economic Journal*, 98 (363): 1071–1091.
- Bruce J. Chapman (1993), *Long Term Unemployment: Causes, Consequences and Policy Responses*, Report commissioned by the Department of Employment, Education and Training, Canberra (December).
- Bruce J. Chapman, P. N. Junankar and Cezary Kapuscinski (1992), "Long Term Unemployment Projections", *Australian Bulletin of Labour*, September: 195–207.
- Bruce J. Chapman, P. N. Junankar and Cezary Kapuscinski (1993), "Long-term Unemployment", paper presented to the Centre for Economic Policy Research/Department of Employment, Education and Training Conference, *Unemployment: Causes, Costs and Solutions*, Australian National University, Canberra, February.
- Bruce J. Chapman and Peter N. Smith (1992), "Predicting the Long-term Unemployed: A Primer for the Commonwealth Employment Service", in R. G. Gregory and T. Karmel (eds), *Youth in the Eighties: Research from the Australian Longitudinal Survey*, Centre for Economic Policy Research, Australian National University.
- Committee on Employment Opportunities (1993), *Restoring Full Employment: A Discussion Paper*, Australian Government Printing Service, Canberra, December.
- Department of Industrial Relations (1993), Submission to Committee on Employment Opportunities, September.
- Jerome Fahrer and Andrew Pease (1993), "The Unemployment-Vacancies Relationship in Australia", Reserve Bank Discussion Paper 9305, June.
- P. Flatau, P. Lewis and A. Rushton (1991), "The Macroeconomic Consequences of Long-Term Unemployment", *The Australian Economic Review* (4).

- R. G. Gregory and Ann Daly (1990), "Can Economic Theory Explain Why Australian Women are so Well Paid Relative to their US Counterparts?", CEPR Discussion paper No. 226, Australian National University.
- Barry Hughes (1987) "Immigration and the Australian Adult Beveridge Curve", paper presented to a National Bureau of Economic Research Conference on Immigration Trade and Labor, Cambridge, Massachusetts, September.
- Barry Hughes (1992), "Trends and Cycles in Unemployment Gross Flows", paper presented to the 1992 Australian Conference of Economists, University of Melbourne.
- Barry Hughes (1993), "Investing in Labour Market Efficiency", an extended version of a speech to the Metal Trades Industry Association, Hyatt Hotel, Canberra, October.
- INDECS (1992), *State of Play 7*, Allen and Unwin, Sydney.
- Jackman and R. Layard (1991), "Does Long-term Unemployment Reduce a Person's Chance of Finding a Job?", *Economica*, Vol. 58 (229): 93-107.
- P. N. Junankar (1988), *Very Long Term Unemployment*", Commission of the European Communities, Luxembourg.
- Donald E. Lewis and Brett Shorten (1992), "Career Interruptions Among Young Australian Men and Women", in R. G. Gregory and T. Karmel (eds), *Youth in the Eighties: Research from the Australian Longitudinal Survey*, Centre for Economic Policy Research, Australian National University: 224-240.
- Jacob Mincer (1988), "Job Training, Labor Turnover and Wage Growth", National bureau of Economic research, Working Paper No. 2690, August.
- J. D. Pitchford (forthcoming), "The Phillips Curve", in G. Bell and B. Hession (eds), *Readings in Economics*, VCTA Publishing, Melbourne.
- S. L. Rummery (1992), "The Contribution of Intermittent Labour Force participation to the Gender Wage Differential", *The Economic Record*, Vol. 68 (203): 351-364.
- S. L. Rummery (1993), *Job Mobility and Wages*, unfinished PhD Thesis, Australian National University.
- Hong W. Tan, Bruce Chapman, Christine Petersen and Alison Booth (1992), "Youth Training in the United States, Great Britain, and Australia", in Ronald G. Ehrenberg (ed), *Research in Labor Economics* Vol. 13, JAI Press: 63-100.
- Inge Totsch (1988), "Screening in Labour Markets with Heterogenous Workers", in Rod Cross (ed), *Unemployment, Hysteresis and the Natural Rate Hypothesis*, Basil Blackwell, London: 180-202.
- Watts, M. and W. F. Mitchell (1988), "Australian Wage Inflation: Real Wage Resistance, Hysteresis, and Incomes Policy: 1968(3)-1987(3)", *Manchester School*, Vol. LVIII(2) June: 142-164.
- J. Williams (1989), "A Single Girls' Guide to Steady State Relationships", Honours thesis, Australian National University.