Centre of Full Employment and Equity

Unemployment: Have we Beaten It or Has It Beaten Us?

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Introduction

In the midst of the on-going debates about labour market deregulation, minimum wages and taxation reform, the most salient, empirically robust fact that has pervaded the last two and a half decades is that actual GDP growth has rarely reached the rate required to achieve and maintain full employment. Discretionary monetary and fiscal policy decisions have meant that the Australian economy has been prevented from creating enough jobs in the last 25 years to match the preferences of the labour force. This is shown in Figure 1. Nor have these policy decisions allowed the economy to generate enough hours of work to match the preferences of the employed. Ironically, highly desirable, labor-intensive projects go undone; to the detriment of all. The dominant economic orthodoxy has, since the mid-1970s, supported policy makers and politicians who have deliberately and persistently constrained their economies under the pretext that the role of policy is to ensure the economy functions at the so-called natural rate of unemployment. The cumulative costs of the foregone output and unemployment are huge and dwarf the costs of alleged microeconomic inefficiency. The solution to unemployment lies in producing more work. Policy makers must address this basic fact before they turn their attention to anything else.

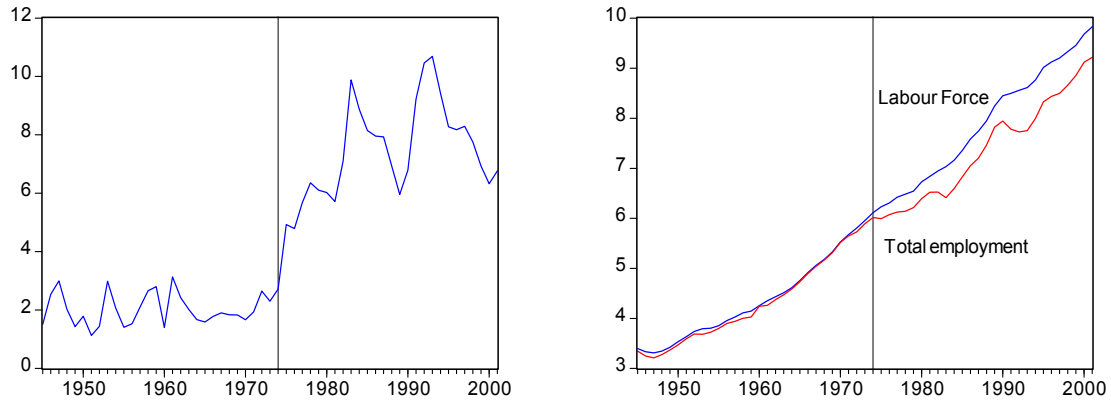
Full employment should be a major macroeconomic goal of the Australian Government because it maximises output. Even in a fully employed economy there will be always labour market challenges that need to be faced by government. They include the ongoing need for a skilled and competent workforce, attention to regional disparities, and the integration of newly arrived workers into the labour force. However these challenges

become major difficulties if the economy is also plagued by persistently high unemployment of the type that has pervaded in Australia since 1975.

The evidence of policy failure is overwhelming. The low point unemployment rate has steadily ratcheted upwards over successive economic cycles. In the last four economic cycles the low point unemployment rates have been 4.6 per cent (June 1976), 5.5 per cent (June 1981), 5.6 per cent (November 1989) and 6.0 percent in September 2000 (Mitchell and Carlson, 2001). The average duration of unemployment, which was 3 weeks when data was first collected in 1966, is now around 52 weeks. Despite a sustained period of economic growth since the recession of the early 1990s, the unemployment trend in Australia remains positive. In October 2002, there were 125 thousand persons who had been unemployed for more than 52 weeks (22 per cent of total unemployment). The youth unemployment rate (15-19 years) was 15.9 per cent (males 15.7 per cent, females 16.1 per cent).

However, the labour wastage evident in the upward trending unemployment rate is even worse when broader measures of labour underutilisation are considered. In terms of measuring the extent of the underutilisation problem, the Centre of Full Employment and Equity (CofFEE), has developed two hours-based measures which explicitly estimate the degree of underutilisation among the unemployed, the hidden unemployed, and the part-time workers who desire more hours of work. For August 2002, the official unemployment rate was 5.9 per cent, whereas the broader measures show that by adding underemployment the degree of underutilisation rises to 9.2 per cent and by including the hidden unemployed the degree of wastage rises to 11.2 per cent .

Figure 1 Unemployment rate and the Employment Gap, Australia, 1945 to 2001



(a) Unemployment rate (per cent) (b) Employment gap (millions)

Source: Mitchell and Carlson (2001)

Given that economic policy should be concerned with attaining efficiency in resource usage, it is paramount that the macro inefficiency be attacked with every policy option that is available to government. There is a sense in which the gravity of the problem posed by labour underutilisation and its attendant social costs is being overlooked by policy makers in almost all OECD economies. They now vigorously pursue active labour market programs that locate the source of the problem within the attitudes and

motivations of the individual and/or in the institutional arrangements of the labour market and largely deny that systemic failure at the macroeconomic level is implicated.

The OECD (2001: 14) has recently praised Australia and concludes that in terms of labour market policies Australia "has been among the OECD countries complying best" with the OECD Jobs Strategy (see OECD, 1994). The reality is that the Federal government in Australia has effectively abandoned the goal of full employment and instead appears satisfied with pursuing the diminished goal of full employability. The government no longer ensures that employment growth matches labour force growth but focuses, instead, on making individuals 'work ready', should there be jobs available. Yet there is strong evidence that the Australian economy has been demand constrained since 1975 and has failed to generate sufficient employment. There is also strong evidence to show that active labour market programs of the type praised by the OECD have been largely ineffective in reducing unemployment and improving the outcomes of the most disadvantaged workers in the labour market (Mitchell and Carlson, 2001).

In the last two decades, the lowest rate of unemployment was 5.4 per cent (November 1989). Over the last decade both the current Howard Coalition Government and the previous Labor Government have eschewed the adoption of policies of direct job creation to reduce the rate of unemployment. Fiscal policy has been geared to the achievement of budget surpluses, ostensibly to improve the level of net exports under the twin deficits dogma and to reduce pressure on domestic interest rates under the crowding out hypothesis. At the same time monetary policy has been geared to keeping inflation low. An agenda of extensive labour and product market reform commenced when the Labor Government was in power and has accelerated under the Coalition. The current Government does not have an explicit employment policy. Strong economic fundamentals allied with deregulated markets are viewed as both necessary and sufficient for the return to full employment, even though the Coalition's track record with respect to unemployment is disappointing. The rate of unemployment has remained above 6 per cent after the Coalition inherited a rate of 8.9 per cent in March 1996 in an environment of low inflation. By contrast in 1974, the rate of unemployment was less than 3 per cent. At the same time unemployment is now viewed as an individual problem rather than a collective problem. This is epitomised by the introduction by the Work for the Dole scheme at the end of 1997 and its consolidation through the development of mutual obligation in mid-1998.

Further the disparate rates of unemployment across groups, including by age, country of origin, educational attainment and region, and the long term increase in the average duration of unemployment confirm that the burden of unemployment is not equally shared. The solution to this malaise is always further reform, rather than a fundamental change in policy. Despite the OECD Jobs Study (1994), there is increasing skepticism about the capacity of neo-liberal reforms to reduce the high unemployment rates that have prevailed in most OECD economies since the mid-1970s.

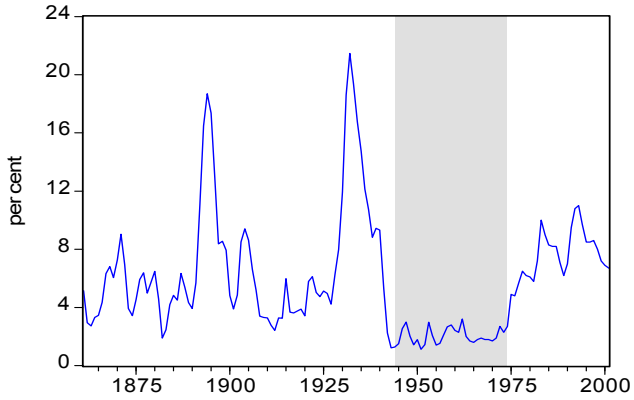
Most researchers acknowledge that the costs of the sustained high unemployment in Australia and other developed economies are substantial (Watts and Mitchell, 2000). The foregone output resulting from unemployment being above the full employment level amounts to around $39 billion per annum.

A potted macro history

While the Great Depression taught us that, in the absence of government intervention, capitalist economies are prone to lengthy periods of unemployment, the Second World War experience proved that full employment could be maintained with appropriate use of budget deficits. From 1945 until 1975, the emphasis of macroeconomic policy became firmly focused on maintaining full employment. Inflation control was a second-order issue and governments used fiscal and monetary policy to maintain levels of overall spending sufficient to generate employment growth in line with labour force growth.

Public sector job creation played the important and implicit role of 'employer of the last resort' (Mitchell, 2001a). The economies that avoided high unemployment in the 1970s all maintained a sector of the economy that served this function (Omerod, 1994). The shaded area in Figure 2 shows that throughout this period unemployment rates rarely rose above 2 per cent. Prior to, and after, this period the Australian economy rarely achieved unemployment rates below 5 per cent.

Figure 2 An historical view of the unemployment rate in Australia, 1861-2001.



Source: Mitchell and Carlson (2001).

By the 1950s, the positive focus on jobs gave way to 'full employment' being seen through the prism of the Phillips Curve, which proposed a formal relationship between unemployment and inflation, and posited sharp policy tradeoffs.

The economic dislocation following the oil price rises in 1974 provided the conditions necessary for the paradigm shift in macroeconomics toward neo-liberalism. Governments reacted to accelerating inflation with contractionary policies designed to quell rising prices, and unemployment rose. The Keynesian notion of full employment was redefined in terms of a unique, and demand-invariant, unemployment rate (the NAIRU) where inflation is stable. The NAIRU could only be reduced by tackling microeconomic constraints such as institutional arrangements in the labour market (wage setting mechanisms and trade unions) and/or faulty government welfare policies, which have encouraged people to engage in inefficient search or embrace welfare dependence.

The Reserve Bank of Australia (RBA) has been captured by this paradigm. Its 1996 *Statement on the Conduct of Monetary Policy* argues that its priority on inflation control is consistent with full employment (defines erroneously as the NAIRU). The Statement

also emphasised the need to target inflation and inflationary expectations and the complementary role that 'disciplined fiscal policy' had to play.

Fiscal and monetary austerity is justified with reference to the alleged financial constraints on government and the fear that budget deficits will trigger off spiraling inflation. Mitchell and Mosler (2002) demonstrate that the federal government is not financially constrained and that the pursuit of budget surpluses is ultimately self-defeating.

Further, when private spending wanes the economic outcome depends entirely on the policy response by government. If demand for private production falls but people still desire to work then there is no valid reason not to switch them to public goods production until private demand recovers. Unemployment results when the policy response inhibits this switch. Surprisingly, most commentators and public officials fail to realise that the unemployed, supported by welfare measures, are already 'in the public sector'. In the past, the 'employer of the last resort' capacity provided by various sections the public sector ensured that the surplus labour would be absorbed into paid employment. However, the decline in public employment shares over the last 25 years coupled with the desire to push the public budget into surplus and implement national competition policy has taken this capacity away (Mitchell, 2001b). The unemployment buffer now absorbs the fluctuations of private sector spending rather than public sector employment.

Stylised facts about unemployment

Demand deficiency

The fundamental reason for unemployment has already been noted. Figure 1 clearly shows that the Australian economy does not produce enough jobs. For unemployment to fall, real output growth must exceed the sum of labour productivity and labour force growth. The failure to sustain growth above this benchmark has manifested in an average of 11.1 unemployed persons per vacancy since June 1974 (Mitchell and Carlson, 2001).

The degree of labour underutilisation in Australia is far worse than depicted by the official unemployment rate. We will consider the issues about measuring labour underutilisation in a later section.

Persistence and asymmetry

Unemployment rates are also exhibit two properties that make the costs of recession very high and protracted. These properties are referred to as asymmetry and persistence. When a negative demand shock is received, unemployment rises sharply and then persists at the new level for many periods. In periods of strong economic growth, the decline in unemployment is very protracted.

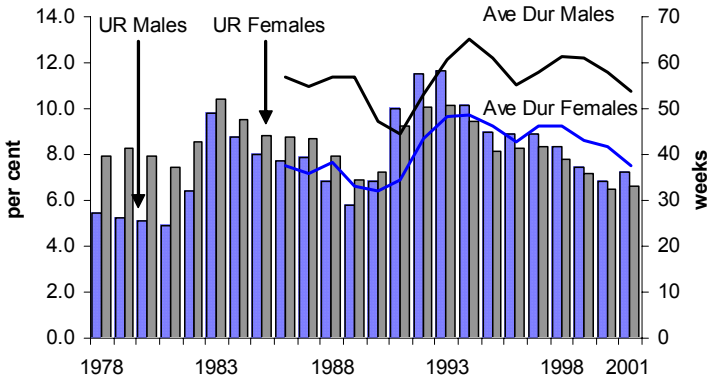
Duration facts

The duration of unemployment exhibits a cyclical pattern but it is also trending upwards. It rises with the aggregate unemployment during major downturns but persists at that new level until the next jump upwards. By August 2002, the average duration of an unemployment spell was over 52 weeks. There were 144.8 thousand workers (21.6 per

cent of the total unemployed) who had been unemployed for more than 52 weeks. These workers become increasingly disenfranchised from the labour market. Their human capital deteriorates and employers are likely to pass them over when a choice is available.

Figure 3 decomposes unemployment data by gender and reveals some interesting results. Despite differences in earlier periods, male and female unemployment rates have almost converged. The graph shows that males were disproportionately affected by the early 1990s recession and that males suffer significantly longer average duration. At August 2001, there were 93.9 thousand males (24.1 per cent of total males unemployed) who had been unemployed for longer than 52 weeks. The corresponding figure for females was 51 thousand (18.1 per cent of total females unemployed).

Figure 3 Unemployment rates and average duration by gender, Australia, 1978-2001



Source: ABS, *The Labour Force*, Cat. No. 6203.0.

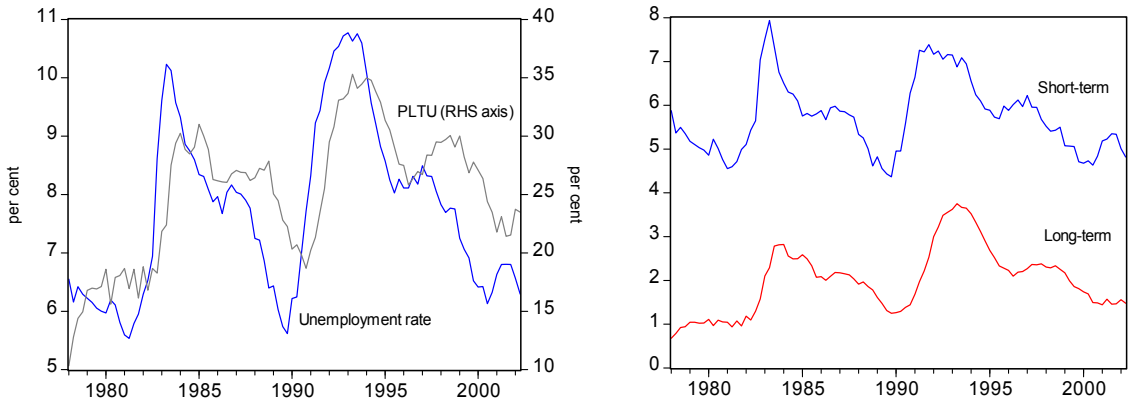
Following the OECD Jobs Study (1994), active labour market programs dominate the official response to persistently high unemployment with full employability replacing full employment as the legitimate employment goal of government (Mitchell and Carlson, 2001). Individuals are now blamed for what are systemic macro failures. The whole thrust of active labour market policy is predicated on the belief that the long-term unemployed represent a structural bottleneck that can only be addressed by supply initiatives like training and welfare reform (OECD, 1994, 2001). Layard (1998: 27) argues that "in the very bad old days, people thought that unemployment could be permanently reduced by stimulating aggregate demand … This belief has died everywhere … these ideas did not address the fundamental problem … The only way to address this problem is to make all the unemployed attractive to employers … Nothing else will do the trick." Layard (1998) underpins his argument by asserting that new jobs follow an increase in effective labour supply. In what represents a modern restatement of Say's Law and the real balance effect, he says (1998: 26) "the mechanism is simple enough. If the labour supply increases and the number of jobs does not, inflation starts to fall; this makes possible an increase in aggregate demand in the economy, which in turn increases employment in line with the increase in the labour supply." It is a pity that OECD economies in general have not witnessed these dynamics over the last 25 years.

In Figure 4, the behaviour of the official unemployment rate, its short- and long-term components, and the proportion of long-term unemployment in total unemployment

(PLTU) are shown. Several studies have concluded that a rising proportion of long-term unemployment is not a separate problem from that of a rise in unemployment *per se* (Mitchell, 2001a). Further, the cyclical behaviour of short- and long-term unemployment seems similar. The flows analysis below provides strong support for this conclusion.

This casts doubt on the supply-side OECD emphasis. While Layard (1998) may wish to abstract from the problem of a lack of employment opportunities, the evidence from the 1990s expansion in Australia and the USA very clearly shows that while trend inflation remained low the proportion of long-term unemployment fell in lock step with the declines in the official unemployment rate.

Figure 4 Unemployment rate, PLTU, short-term and long-term unemployment rates



(a) Unemployment rate and PLTU

(b) STUR and LTUR

Source: ABS, Labour Force, Cat 6203.0. Long-term unemployment is defined as spells in excess of 52 weeks.

Regional distribution

The regional distribution of unemployment highlights another aspect of the unequal incidence of unemployment. Table 1 shows employment, labour force participation rates and unemployment rates for the 19 DEWRSB Small Area Labour Markets at the June quarter 2001. Sydney and Melbourne account for 41 per cent of national employment and both exhibit lower than average unemployment rates and above-average participation rates. The Northern Territory and the Australian Capital Territory both have notably higher participation rates and average to below-average unemployment rates.

The problem areas appear to be Adelaide, Brisbane, the states of Queensland and Tasmania and the regions of the Hunter and North Coast and South Western Australia. The diversity of these regions makes it hard to construct a simplified explanation, such as one based on an urban-regional dichotomy.

Using the 186 DEETYA administrative regions, EPAC (1996: 68) concluded that the "lowest unemployment rates were typically recorded in wealthier areas of the big cities and some rural areas… The highest unemployment rates typically occurred in poorer areas of the big cities and a range of fast-growing coastal centres. Interestingly, few were in the inland areas although many of these suffer form narrow economic bases."

Table 1 Regional labour market indicators, Australia, June 2001 (a)

	Employment		Labour Force Participation	Unemployment Rate
	(000s)	% of Total	(%)	(%)
Sydney	2029.3	22.2	64.7	5.1
Hunter and North Coast	429.6	4.7	57.1	9.2
Illawarra and SE NSW (b)	256.0	2.8	58.1	5.9
Western NSW (b)	215.5	2.4	60.2	4.7
Riverina	134.9	1.5	65.2	5.6
Melbourne (b)	1717.3	18.8	64.7	6.2
Western Victoria (b)	374.5	4.1	62.0	6.2
Eastern Victoria	223.4	2.4	60.6	6.6
Brisbane	1141.9	12.5	65.1	9.0
Southern Queensland	199.1	2.2	61.9	9.1
Central and Northern QLD	356.9	3.9	68.0	8.0
Adelaide (b)	493.3	5.4	59.7	7.8
South Australia Country (b)	180.4	2.0	61.1	6.1
Perth	688.9	7.5	66.1	7.1
Southern Western Australia	128.2	1.4	64.5	8.4
Greater Western Australia	118.4	1.3	75.3	6.8
Tasmania	200.3	2.2	58.6	8.2
Northern Territory	96.2	1.1	72.7	6.8
Australian Capital Territory	167.4	1.8	72.6	5.5
Australia	9151.4	100.0	63.8	6.8

Source: DEWRSB, Small Area Labour Markets - Australia - June 2001.
(a) In April 2001, the ABS revised the definition of employment and unemployment used in the monthly Labour Force Survey. Estimates at the State/Territory level have been backcast by ABS to April 1986. Accordingly, the estimates in this table for Tasmania, the two Territories and Australia are not strictly comparable with those for the other Labour Market Regions.
(b) While the boundaries of these regions align as closely as possible to the boundaries of ABS labour force regions, there are a number of minor differences.

The failure of active labour market programs

The OECD said that Australian policy leads the way in introducing "market-type mechanisms into job-broking and related employment services … [and Australia] …has been among the OECD countries complying best" with the Jobs Strategy (OECD, 2001: 11-14). Cowling and Mitchell (2002) argue that active labour market programs have largely failed (see Table 2). For example, three months after finishing Intensive Assistance (B), just 11.3 per cent of individuals were in full-time work while 63.3 per cent remained unemployed or not in the labour force. Half of the individuals who commenced Intensive Assistance in this period had been in the program at least once before (Senate Employment, Workplace Relations and Education Committee, 2002: 136). In addition, the Productivity Commission (2002: Chapter 9) found that the payments structure to Job Network providers has led to a substantial proportion of Intensive

Assistance clients being 'parked' while providers concentrate their efforts on job seekers who are easier to place in employment.

Work for the Dole program outcomes are also poor with around 65 per cent of employment exits from Work for the Dole in 2002/01 going into temporary, casual and seasonal work (Senate Employment, Workplace Relations and Education Committee, 2002, Question 71).

Table 2 Post assistance labour market outcomes, Year ending September 2001

Program	Employed			Unemployed	NILF	Education Outcomes
	F/T	P/T	Total			
	(%)	(%)	(%)	(%)	(%)	(%)
Work for the Dole	11.8	12.8	24.6	44.0	8.3	11.6
Job Matching	38.2	28.0	66.2	28.8	5.0	12.0
Job Search Training	20.6	20.8	41.4	46.3	5.2	12.9
Intensive Assistance A	18.4	25.5	43.8	36.0	12.5	8.3
Intensive Assistance B	11.3	17.8	29.1	45.5	17.8	7.5

Source: The DEWR Post Program Monitoring Survey conducted three months after job seekers cease assistance. See Cowling and Mitchell (2002) for a complete explanation. Intensive Assistance A relates to lower assessed disadvantage than Intensive Assistance B. NILF denotes not in the labour force. Rounding errors occur.

Why should we expect anything better in the absence of measures designed to address the quantum of jobs? Improving employability merely shuffles the jobless queue when the economy is demand constrained.

Measuring unemployment

Underutilisation is a general term describing the wastage of willing labour resources. It arises from a number of different reasons that can be subdivided into two broad functional categories: (a) a category involving unemployment or its near equivalent. In this group, we include the official unemployed under ILO criteria and those classified as being not in the labour force on search criteria (discouraged workers), availability criteria (other marginal workers), and more broad still, those who take disability and other pensions as an alternative to unemployment (forced pension recipients). These workers share the characteristic that they are jobless and desire work if there were available vacancies. They are however separated by the statistician on other grounds; (b) a category that involves sub-optimal employment relations. Workers in this category satisfy the ILO criteria for being classified as employed but suffer "time related underemployment" (ABS, 2001a: 55) for example, full-time workers who are currently working less than 35 hours for economic reasons or part-time workers who prefer to work longer hours but are constrained by the demand-side. Sub-optimal employment can also arise from "inadequate employment situations" (ABS, 2001a: 55) where skills are wasted, income opportunities denied and/or where workers are forced to work longer than they desire.

The CofFEE Labour Market Indicators (CLMI) are published regularly by the Centre of Full Employment and Equity at the University of Newcastle to provide an alternative and broader picture of the degree to which the economy wastes its willing labour resources.

The measures in the table below are in percentage terms and include:

1. the official unemployment rate (U3);
2. the underemployment rate (UE);
3. the combined unemployment and underemployment rate (CU7); and
4. CU7 plus the hidden unemployment rate (CU8).

As we broaden the measure of underutilisation, the significance of the failure of economic policy becomes clearer (see Table 3)

Table 3 Broad CLMI for Australia, August 2001 to 2002

	U3	UE	CU7	CU8
Aug-01	6.6	3.4	10.0	12.3
Nov-01	6.6	3.6	10.2	12.6
Feb-02	7.1	3.6	10.7	13.3
May-02	6.3	3.4	9.7	11.9
Aug-02	5.9	3.3	9.2	11.2

References: Mitchell and Carlson (2001)

Unemployment as labour underutilisation

According to ILO concepts, a person is unemployed if they are over a particular age, they do not have work, but they are currently available for work and actively seeking work. Unemployed people are generally defined to be those who have no work at all. Unemployment is therefore defined as the difference between the economically active population (civilian labour force) and employment. The unemployment rate refers to the number of unemployed persons as a percentage of the civilian labour force. The inference is that the economy is wasting resources and sacrificing income by not providing enough opportunities for the unemployed to be involved in productive activity.

Other avenues of labour resource wastage that are not captured by the unemployment rate as defined in this manner. The persons represented in these other avenues of resource wastage may be either in or out of the labour force.

Hidden unemployment

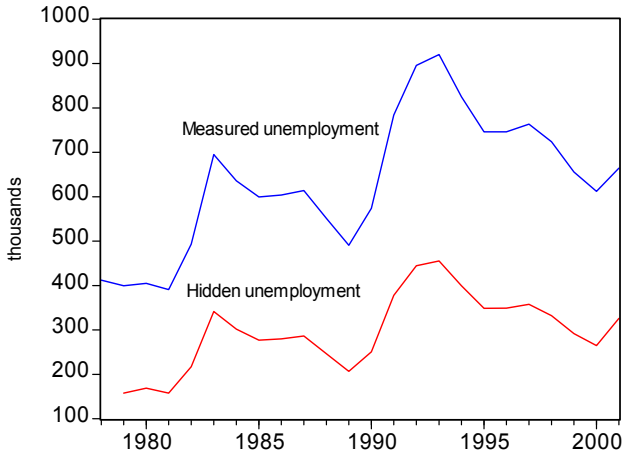
Workers who excluded from being counted in the labour force only because they had failed the active search component in the survey were in every other way equivalent to an officially unemployed worker. These workers are called discouraged workers or the hidden unemployed.

The CLMI estimates of hidden unemployment are derived from regression estimates of the cyclical sensitivity of age-gender labour force participation rates, which allow us to calculate the extra labour force participation that would be forthcoming if the economy was at some assumed ‘full employment’ level (see Mitchell, 2001c). By multiplying the working age population for each age-gender group by the respective estimated ‘participation gap’ one gets an estimate of the hidden unemployment (see Perry, 1970).

The CLMI hidden unemployment estimates are thus derived on a different basis as those available from the ABS and discussed above under U4. These estimates can also be converted into hours-based measures using the methodology explained in a later section.

In terms of the persons-based estimates, the course of hidden unemployment in Australia since 1978 is compared to the evolution of measured unemployment in Figure 5. The cyclical nature of hidden unemployment is clearly shown with local peaks coinciding with the two major downturns in economic activity over this period. The other disturbing point that emerges from the chart is that the recovery periods following the respective downturns ended with hidden unemployment remaining above its previous low. The patterns of the CLMI estimates are broadly similar to those implied by U4.

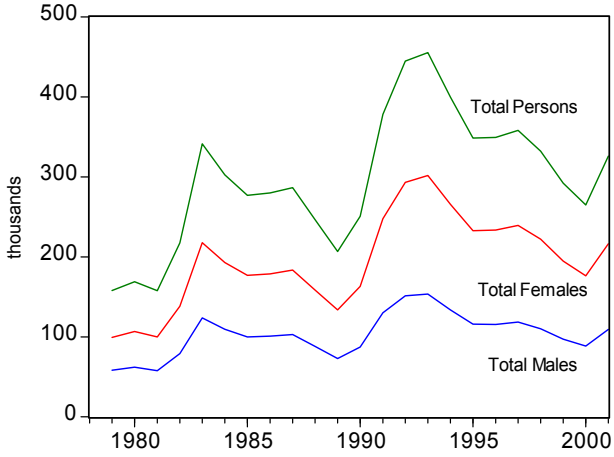
Figure 5 Measured and hidden unemployment, Australia, 1978-2001, thousands.



Source: ABS, The Labour Force, 6203.0 and author's own estimates.

Total estimated hidden unemployment is decomposed in into male and female aggregates in Figure 6. Consistent with intuition, females are more prone to hidden unemployment probably because they still face more constraints on their time (combining work and home responsibilities), which means that women's' work remains, in part, instrumental.

Figure 6 Hidden unemployment, Australia, totals, 1978-2001

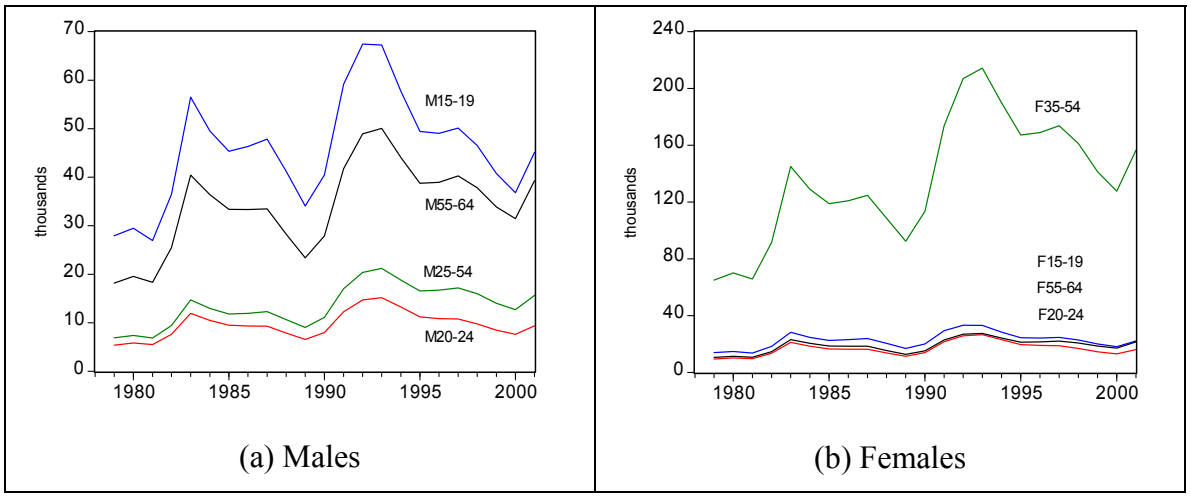


Source: Mitchell and Carlson (2001).

Once we decompose the gender aggregates by age an interesting picture emerges. The estimates of hidden unemployment for males in 4 age categories: teenagers (15-19 years); 20-24 years; prime-age (25-54); and older workers (55-64) are shown in Figure 5(a). The aggregations were guided by similar behaviour within the disaggregated groups that comprise the categories shown. The evidence is clear that hidden unemployment for males is confined to the two age extremes: the teenagers and the older workers. The cyclical swings and implied asymmetries for these groups are also larger.

Similarly, the estimates for females in the same age categories as males are shown in Figure 7(b). The prime-age females account for most of the estimated hidden unemployment for females. Mitchell and Carlson (2001) reports that this cohort accounts for around 48 per cent of all estimated hidden unemployment. The cyclical swings and implied asymmetries are also dramatic.

Figure 7 Hidden unemployment by age-gender, Australia, 1978-2001, thousands.



(a) Males (b) Females

Note: the Female age groups F15-19, F20-24 and F55-64 are shown as they appear top to bottom.

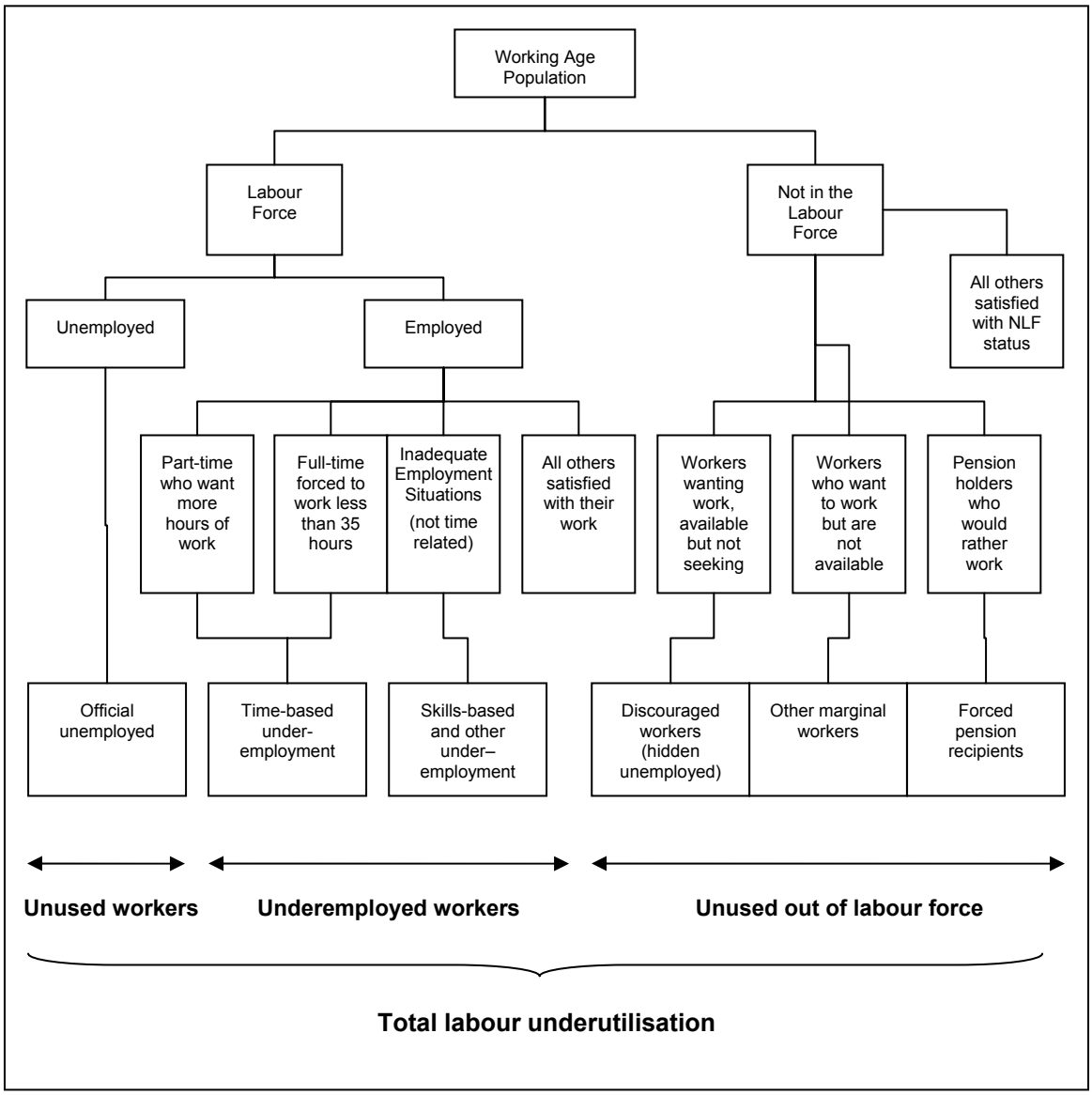
Time based and other types of underemployment

Underemployment may be time-related, referring to employed workers who are constrained by the demand side of the labour market to work fewer hours than they desire, or to workers in inadequate employment situations, including for example, skill mismatch. Clearly, if society invests resources in education, then the skills developed should be used appropriately. This latter is however, very difficult to quantify and in this paper we concentrate on the former. In conceptual terms, a part of an underemployed worker is employed and a part is unemployed, even though they are wholly classified among the employed.

Time-related underemployment is defined in terms of a willingness to work additional hours, an availability to work additional hours, and having worked less than a threshold relating to working time. In Australia, in line with the standard measurement of unemployment, persons *actively* seeking additional hours of work are distinguished from those who are not. Reflecting changing employment relationships and an increase in multiple job-holding, in Australia the questions collecting underemployment information have been recently revised to reflect a wider range of situations where people are seeking

to work more hours. While the previous questions focused on people who were seeking *another* job which offered more hours, the redesigned questions are more inclusive of other situations, such as where people seek more hours with their current employer, or an extra job. This broadening is expected to result in a small increase in the number of people classified as underemployed (ABS, 2001). Two main series are identified: part-time workers wanting more hours of work; and full-time workers who worked less than 35 hours in the reference week for economic reasons (stood down or insufficient work).

Figure 9 The structure of labour underutilisation



An economy with many part-time workers who desire but cannot find full-time work is arguably less efficient than an economy with labour preferences for work hours satisfied. In this regard, involuntary part-time workers share characteristics with the unemployed. If this form of underemployment is considered, the indicator would "move from an activity-based concept of the labor force … [as in the unemployment rate] … to a 'time lost' type of concept." (Sorrentino, 1995: 32).

Since February 1978, there have been around 3.1 million jobs created of which 54 per cent have been part-time. In that time, the labour force has grown by 3.3 million. The unemployment-vacancy ratio clearly indicates that there has been a persistent demand constraint imposed on the labour market (see Table 4).

Table 4 Labour force and employment, Australia, 1978-2001

	Labour Force (000s)	Full-time (000s)	Part-time (000s)	Total (000s)	FT/Total (ratio)
1978	6468.5	5099.9	885.7	5985.6	0.85
2001 (a)	9768.2	6543.6	2580.6	9124.2	0.72
Change	3299.7	1443.7	1694.9	3138.6	

Source: ABS, *The Labour Force*, Cat. No. 6203.0. (a) August 2001.

The increasing proportion of part-time work has often been interpreted as a reaction to the desire by workers for more flexible work arrangements. However, over the period 1980-2001, the number of part-time workers wanting longer hours has risen four-fold indicating that the demand constraint and structural changes promoting the growth of part-time employment have been forced upon the work force.

Types of unemployment

Economists have tried to describe unemployment using different categories. The boundaries of these categories are blurred and there is much disagreement about the effectiveness of the demarcations. We have already investigated the concept of demand-deficient or cyclical unemployment. Other categories are as follows.

Frictional unemployment

Labour markets are in a constant state of flux. Specific jobs are continually created and destroyed as firms expand, adjust to changing labour force characteristics, restructure, contract or close. This process of job creation and destruction is mirrored by movements of workers between labour force states (employment, unemployment and not in the labour force).

It takes time to match the workers who are seeking new jobs to the vacancies that are posted by employers and as consequence it is normal to expect some positive unemployment rate.

This unemployment is referred to as frictional unemployment and is not considered to be a problem and might reasonably be expected to be of an order of around 2 per cent of the labour force.

An economy which only has frictional unemployment would be fully employed.

Structural unemployment

This category is rather controversial. There is an overlap with the concept of frictional unemployment in the sense that the latter can become structural if the duration of unemployment is substantial.

Structural unemployment arises when: (a) there is a mismatch between the skills being offered by the unemployed and those in demand by the employers who have unfilled vacancies; (b) there is a spatial mismatch such that an unemployed worker in one location has skills that are relevant to an unfilled vacancy in another location.

The patterns of product market demand are continually shifting among industry output in addition to the demographic and skills profiles of the labour force. The economy has to thus adjust to these dynamics and adjustment lags can be lengthy. Examples of changes that "shock" the economy include the introduction of new technology like robotics into manufacturing. Many local workers are displaced as a consequence and arguably do not have the skills that are in demand in growing areas of the economy. The decline of regions is another example.

Globalisation has been implicated as a cause of structural unemployment. Global capital flows have led to major shifts in production processes around the world with a tendency to locate plants in low cost economies. The products then penetrate domestic markets and place local manufacturing under competitive pressure. The concept of deindustrialisation is discussed in a later section.

Natural Rate Explanations

The prevailing orthodoxy in economics seeks an explanation for unemployment in the labour supply side, hypothesising that full employment now occurs at much higher unemployment rates than in the past. This is expressed in technical language as a rise in the Non-Accelerating Inflation Rate of Unemployment (NAIRU).

The NAIRU is related to the concept of the Natural Rate of Unemployment (NRU). Originally, the NRU was coined by Milton Friedman to link unemployment with workers' expectations of real wage movements. Swings in unemployment around the natural rate occur when the economy undergoes supply changes because workers take time to accurately assess their real wage level. They temporarily oversupply labour in times of rising money wages and prices because they think the real wage is rising when in fact it is falling (a point known to the employers) and vice versa in a deflation. When expectations are in accord with reality, the economy is stable at the natural rate. The importance of this concept is that there is no involuntary unemployment. Any worker not in employment has chosen based on the opportunity cost of leisure to remain unemployed. The NRU also coincides with stable inflation rates.

How does the NRU theory explain the persistently high unemployment in the post 1975 period depicted in Figure 1? They argue that the NRU (NAIRU) has risen. Several reasons have been suggested in the literature for the rise in the NAIRU. The most important are:

1. Excessive unemployment and other social transfers distort the choice between labour and leisure - this might be called the search argument.
2. Excessive minimum wage rates and hiring and firing cost promoted by trade unions and government.
3. Mismatch between the skills of the unemployed workers and the jobs on offer.
4. Excessive real wage levels.

Two related strands of the argument focus on the impacts of technological change and the rise in female labour force participation rates. We will deal with these arguments later.

Layard, Nickell, and Jackman (1991), who represent the view that the cause of unemployment can be traced institutional rigidities in the labour market, hint that the USA economy has been spared the worst of the rise in unemployment because they have experienced a fall in welfare benefits. The argument is simply that the provision of welfare benefits subsidises unemployment and increases the search duration. The OECD Employment Outlook (July 1996, Chart 2.2: 29) showed movements in replacement ratios in OECD countries from 1961 to 1995. There has been no systematic relationship between the direction of the benefits and rise or fall in the employment/population ratio (the most stable measure of labour market activity). For example, Australia has seen a rise in both, whereas Belgium has seen a fall in both. It is also possible that the causation is exactly the opposite of that proposed by the new labour economics. With low activity moderating money wages growth, the replacement ratio will rise if in the face of persistently high unemployment rates, the governments bow to the pressure for increased benefit rates.

Most striking is the fact that in the Scandinavian countries where unemployment has not been as bad as in Australia the replacement ratios are more than twice that found in Australia. The OECD (1996) how the replacement ratio for Sweden is 80 per cent (the ratio of unemployment benefits to average earnings), for Denmark 86 per cent, Netherlands 70 per cent, OECD average 55 per cent and Australia 34 per cent.

The same countries also have much more regulation when it comes to employment protection, employer social service contributions, compulsory superannuation, and hiring and firing rules than in Australia.

Moreover, Layard, Nickell and Jackman (LNJ) (1990: 5) argue that "there are very powerful mechanisms at work which have forced the number of jobs to respond to huge changes that have occurred in the numbers of people wanting work." In general, there have been substantial rises in participation rates in most OECD countries since the early 1970s, driven by the rise in women's participation rates. LNJ must argue that the rise in participation rates has been driven by people seeking to establish a labour force status to get benefits. But once again there is nothing systematic evident that can explain the rise in unemployment.

LNJ (1990: 4) also argue that the level of unemployment has risen sharply relative to the level of vacancies and suggest this is due to a failure of the unemployed to seek work as effectively as before compounded by the search distortion introduced by the welfare system. Mitchell (1999) concluded that for most OECD countries the unemployment-vacancy ratios have risen since 1973 with interspersed cycles. But if search behaviour was to explain these increases, we might expect an upward trend in unfilled vacancies, which is, absent in the data. There has been an average 11 persons unemployed to each unfilled vacancy since 1974. It is more plausible that the problem has been demand-side oriented and the rising ratios of unemployed to unfilled vacancies signal this.

Overall, there has been very little evidence presented to substantiate these effects in any economy in the world. They are largely predictions, which emerge from the orthodox competitive model, which lack empirical substance.

Jobless growth, deindustrialisation and technological change

An argument emerged in the 1990s that the relationship between economic growth and employment growth had been displaced by technological change such that the former no longer guaranteed the latter. The concept of jobless growth was touted as further evidence of the poverty of Keynesian remedies, which relied on the government stimulating aggregate demand to generate growth and hence jobs. If the growth no longer delivered the same amount of jobs as it had previously then the strategy was in need of major overhaul. Some adherents to the jobless growth hypothesis pointed to the fact that information technology is intrinsically more labour-saving than previous technologies (see Padalino and Vivarelli, 1997).

The issue is essentially an empirical one. There are three issues that are relevant in addressing whether there is evidence to support this view of technological unemployment. Firstly, has the employment/growth elasticity decreased? Secondly, can we detect a break in the employment/growth relationship at any point in time? Thirdly, can any evidence of jobless growth be found at the sectoral level, specifically in the manufacturing industry? It is possible that while the economy overall is still producing jobs in accordance with previous growth elasticities, the manufacturing sector, traditionally the engine room of jobs growth has now seen the technological displacement referred to above.

The jobless growth hypothesis runs counter to the usual view that technological change brings with it new opportunities and stronger employment growth after the so-called *compensation mechanisms* start working. Padalino and Vivarelli (1997) outline the two arguments - pro and con for technology. The positive effects of technology on employment are in italics with the counter-argument emphasising the weakness of the compensation mechanisms are following.

1. *New jobs arise in the capital goods sector to make the new machines* – But labour-saving technology spreads into the capital goods sector where new investment results in obsolete machines being scrapped.
2. *Lower prices and competition increases demand.* – The first effect is the loss of demand as sacked workers lose income. For this compensation mechanism to work a strong version of Says Law must operate in a perfectly competitive economy. In oligopolistic markets, which are the norm, prices may not fall.
3. *Profits from lower costs (before prices are lowered) are invested elsewhere* – If investments are not forthcoming (Says Law absent) or if they are labour saving then the compensation is limited.
4. *Wage cuts can compensate* – This contradicts the entire Keynesian theory of effective demand and relies on the flawed neoclassical view of wage cutting. The argument is subject to the fallacy of composition that says that if a firm cuts its wages it will be better off then the same effect will endure if all firms follow suit. Of-course, the lower wages lead to cuts in demand and sales fall if all workers receive the cuts.
5. *Unions may participate in redistribution of wealth generated by lower costs*. Higher incomes lead to higher demand but the labour market no longer allows the unions to

redistribute higher incomes via productivity growth. Wages are more competitive now.

6. *New products are created*. New branches are created which lead to "welfare effects" (positive employment creation) which have to be compared with "substitution effects" displacement of mature products and jobs) – remains the best way of counterbalancing the labour saving effects of new technology.

Padelino and Vivarelli (1997: 211) concluded from their empirical study that "This evidence suggests that fostering growth and ICT investments specifically in manufacturing may have very limited direct employment effects, but fostering aggregate economic growth should contribute to employment, especially in the short run."

Mitchell (1999) also examined Australian data to test the claim that employment elasticities have changed over time, a necessary condition for the jobless growth hypothesis. There was no evidence found to support a hypothesis that there has been a regime shift in the relationship between employment growth and output growth. The results were not at all consistent with the jobless growth hypothesis. Rather, they were consistent with the changes in the industrial composition of employment and output with the labour intensive service sector growing faster than the goods-producing sector.

To substantiate the technological change hypothesis it would be expected that the period of rising unemployment should be associated with rising labour productivity growth. There is no evidence of this in the G7 countries. The slowdown in productivity growth has been greater than the slow-down in overall growth of demand, which means that low productivity growth has contributed to the creation (or at least preservation) of jobs, rather than their destruction. For Australia, a similar pattern has been observed. Part of this decline has been due to the structural shift in the economy away from manufacturing towards the more labour-intensive service industries, which we examine in the next section.

What is deindustrialisation? The literature is unclear on the use of the term. Some use it to refer to a decline in employment in manufacturing or a decline in manufacturing output. Does not a mature economy go through phases of growth where agriculture declines relative to industrial production, which in turn gives way to services? Why focus on the manufacturing sector? With freer trade and financial flows since the 1970s, it is possible that the proportionate decline in manufacturing is just a response to changing international demand and supply conditions.

The source of the relative decline in the manufacturing sector is also questioned. Krugman (1994) focused on the liberalisation of trade in the 1980s. He argued that the increase in unemployment is partly due to the relative contraction of the manufacturing sector as a share of the economy due to trade liberalisation. He estimates the impact of the US manufacturing trade deficit on US employment by calculating the trade deficit as a proportion of manufacturing value added. He shows that the manufacturing trade deficit in the US only amounts to around 2 per cent of manufacturing value added and is therefore only responsible for a reduction in the manufacturing sector, and manufacturing employment, of around 2 per cent.

Others see the decline as a result of government welfare provision. The manufacturing sector has long been seen as the major source of growth and rising living standards in industrial economies. Bacon and Eltis (1976) first developed the Cambridge theory that the decline in manufacturing was a reflection of an endogenous process of deindustrialisation. They make a distinction between marketable and non-marketable output and define deindustrialisation as the decline of the former relative to the latter.

The marketable sector is defined as goods and services whose prices are determined in the market place by demand and supply factors. Bacon and Eltis claim that the underlying real standards of living in an economy are determined by the productivity of the marketable sector firms. Real wealth is sourced in these industries. The manufacturing sector is the hub of the marketable goods sector.

Bacon and Eltis trace the decline in the prosperity of the British economy to the shrinking manufacturing sector. This contraction was exacerbated by the growth of the non-marketable sector (services). The services sector raised the demand for labour and forced the marketable sector to pay higher wages. The rising costs and subsequent price rises eroded the competitiveness of the manufacturing firms in the face of a rise in competitive production in the South East Asian economies.

Bacon and Eltis argue that the rise of welfare provision by governments also contributed to the pressure on the manufacturing sector. The welfare services were provided from tax deductions out of profits and wages. They claim that business investment declined because the marginal profits were now reduced. In addition, trade unions militantly defended the real wages of their members with the subsequent squeeze on profit margins further constraining investment.

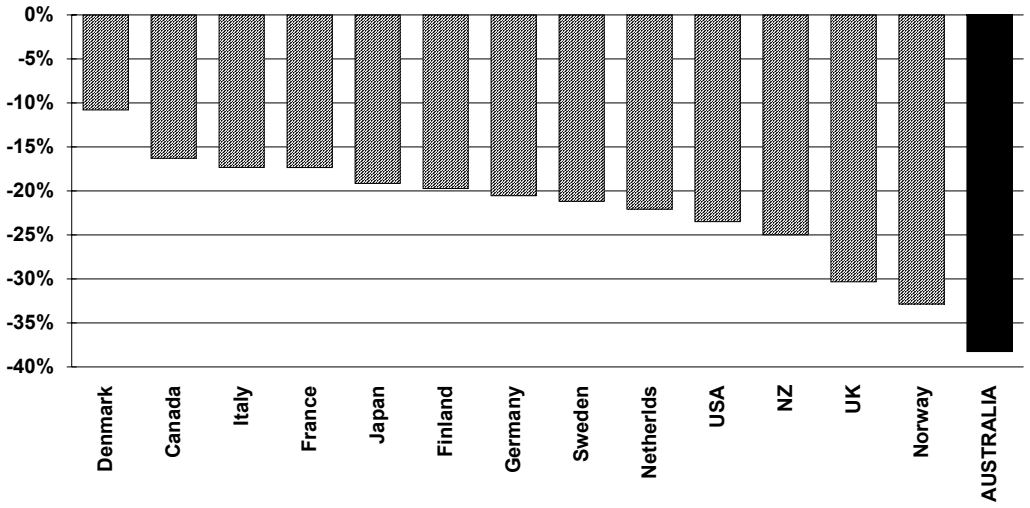
To see the growth of the services sector, as a “crowding out” however is not substantiated. The labour force growth of married women has largely fed the demand for labour in the services sector while the manufacturing sector has been shedding prime-age, blue-collar males. The compositional shift in industry employment may in fact be viewed as being fortuitous in a time when manufacturing was in decline and labour force participation rates were beginning their spectacular rise.

Singh (1977) suggests that nations will lose their manufacturing employment share if they fail to maintain an adequate excess of exports over imports of manufactured goods due to declining competitiveness. Krugman's argument above is a variant on this general notion. A question that arises is why exchange rate movements do not overcome the declining competitiveness. But the process of declining competitiveness would require continual exchange rate falls. The initial loss of competitiveness squeezes profits, which leads to declining investment and a vicious circle, emerges. In other words, the supply-side of the economy contracts as an adjustment to the initial demand shock.

The claim that some problems are exclusively microeconomic and are invariant to aggregate demand management is the basis of the natural rate hypothesis. However what appears to be a structural, imbalance is often a manifestation of demand failure (see Mitchell, 1987).

Figure 10 shows the relative declines in the share of manufacturing output in GDP for a range of OECD countries. It is clear that Australia's relative decline has been the most severe.

Figure 10 Change in Manufacturing Share of GDP for selected OECD countries, 1970-90

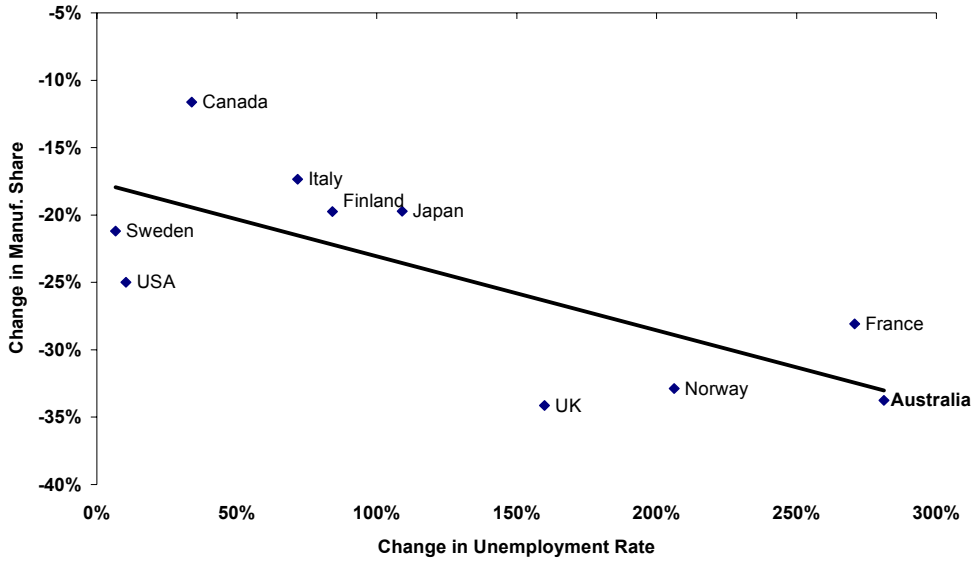


Source: OECD 1994, BIE 1995

Figure 11 suggests that there is an association between increases in unemployment rates and declines in manufacturing shares of GDP across a number of OECD economies.

Figure 11 Change in the unemployment and the change in manufacturing share of GDP

10 OECD countries, 1970-90



Source: OECD (1994)

Using Krugman's (1994) approach to estimate the impact on unemployment of the relative contraction of the manufacturing sector as a share of the economy we see that the outcomes for Australia are considerably larger than Krugman found for the USA. The calculations are shown in Table 10.

Table 5 Contribution of Manufacturing Trade Deficit to Manufacturing Unemployment

Manufacturing Sector Trade Deficit 1993	$33 billion
Reduced by Services Component of Manufactured Exports (40%)	-$13.2 billion
Net Effect of Manufacturing Deficit	$19.8 billion
Total Manufacturing Value Added	$66.2 billion
Percentage Reduction in Manufacturing Sector (19.8/66.2)	29.9%
Manufacturing Workforce 1992-93	1.05 million
Therefore potential Employment Cost of Deficit (29.9% x 1.05m)	314000
Total Australian Unemployed 1992-93	916000
Potential contribution of Manufacturing Trade Deficit to Total Unemployment:	**34%**

Krugman's approach was anticipated by Singh (1989) who concluded after studying the performance of the UK economy during the 1970s that it lost manufacturing jobs to Japan and Germany due to its inefficient manufacturing sector. This is a new dimension to the deindustrialisation argument. There are two components: the relative shifts between sectors (service and goods producing) within a country and, the relative competitiveness of comparable sectors across countries. The trade effect allegedly works through the latter dimension.

Appelbaum and Schettkat (1995: 616-617) reject the view that deindustrialisation has occurred through trade liberalisation between industrialised countries. They examine the relationship between employment and productivity growth. They find a negative relationship between employment growth and productivity growth by industry applying to the whole OECD bloc. They conclude that:

> ... although it may have had a disproportionate effect on countries with an "inefficient" manufacturing sector, trade between the industrialized economies is not the fundamental explanation for the negative inter-industry relationship between employment and productivity growth rates.

What about trade with less developed economies. There has been a massive increase in the proportion of exports from the newly industrialised economies (NIC). Singh (1994) shows that the majority of these exports go to the mature industrialised economies. Appelbaum and Schettkat (1995: 618) convincingly put the myth that manufacturing jobs

in mature economies have been lost to the NICs to rest. They conclude, “this conventional view of trade with the Third World cannot, therefore, explain the inverse relationship between employment and productivity growth rates in the industrialised countries.”

Change in the composition of the labour force

Perry (1970) seeking a "non-natural" explanation for the ostensible shift in the Phillips curve during the late 1960s popularised the idea that the full employment unemployment rate had increased because the share of groups with higher than average unemployment rates in the labour force had increased. Mitchell and Carlson (2001) examined the proposition and rejected the view that compositional changes in the labour force had been responsible for an increase in the aggregate unemployment rate (based on age-sex participation adjustments. Both the male and female unemployment rates would have been higher if the labour force composition had have remained as it was in August 1978. The aggregate unemployment rate would have been substantially higher if the composition of the labour force had have remained unchanged since 1978. It is clear that groups with the high relative unemployment rates have reduced their impact on the overall unemployment rate. The offsetting nature of the compositional changes is captured by the fact that 15-19 and 20-24 and 25-34 year old age groups now contribute less to the aggregate unemployment rate, but the two older groups (35-44 and 45-54) now contribute relatively more. The conclusion is clear. The changing composition of the labour force has not, in itself, generated higher unemployment rates.

The Costs of Unemployment

The majority of commentators agree that sustained unemployment imposes significant economic, personal and social costs that include (see Watts and Mitchell, 2000):

1. loss of current output;
2. social exclusion and the loss of freedom;
3. skill loss;
4. psychological harm;
5. ill health and reduced life expectancy;
6. loss of motivation;
7. the undermining of human relations and family life;
8. racial and gender inequality; and
9. loss of social values and responsibility.

The Way Ahead

Governments should use their policy settings to ensure that its net spending is sufficient to ensure full employment. The high costs of unemployment should be sufficient to require urgent action. The economist who developed the upgrading hypothesis was not a supporter of government inaction when it came to unemployment. Okun (1981: 358-359) said “Some fear that a broader and more comprehensive strategy will turn into greater

involvement by government and an excuse for ever more regulation of and interference with the market system. What they see as the danger of tampering, I see as the possibility for correcting an externality that no efficient system should tolerate. What they see as a minimal exercise of the power and authority of government, I see as an aloof authoritarianism and stern paternalism. I would be morally outraged by a local ordinance designed to promote fire prevention by prohibiting the fire department from responding to any alarms for a month. This is a strong analogy to attempting to prevent inflation by committing the government not to deal with a recession no matter how deep it becomes. A democratic society must have better cooperative ways to instill such socially desirable efforts than by threat and fear."

The primary objective of economic policy should be the restoration of full employment. Full employment arises when all those who wish to work at prevailing living wage rates can obtain work. Persistent unemployment imposes significant economic and social burdens on particular groups in society, which have long term repercussions for their capacity to function in Australian society. Second, the supply side policies and the assumption of the primacy of inflation control represent a flawed agenda and have failed to restore full employment. The obsession with supply side policies has led to sustained high rates of unemployment in Australia and relieved governments of their responsibility for reducing unemployment. It is premised on the discredited, pre-Keynesian view that full employment will be achieved in a competitive, predominantly private sector economy in the absence of institutional impediments to wage and price movements. We reject this premise and argue that the Federal Government has a responsibility to provide a Job Guarantee, by acting as an employer of last resort.

The most efficient way to address the persistent unemployment with its serious social and economic manifestations is to restore the primacy of the budget in generating adequate levels of net government spending to ensure that jobs are created. However, given the operational and impact lags associated with conventional fiscal and monetary policy, it would be difficult for a conventional Keynesian expansion to achieve and sustain full employment. Also monetary policy is unable to target specific regions or industries. Such a program would confront problems of inflation and structural inflexibility. In addition, unless very carefully targeted, increased economic activity would impose additional burdens on the environment.

In this context, direct government job creation should be the way ahead in the form of a comprehensive Job Guarantee program. The Government would resume its role as an employer of last resort.

The important features of a Job Guarantee policy are:

1. It would provide work for all those who are willing to work at prevailing living wage rates, so that unemployment would be reduced to frictional unemployment;
2. It targets those most at risk in terms of job exclusion and similarly it directly operates in those regions with persistently high rates of unemployment
3. It provides meaningful work, training and contributes to community well being through the provision of community services and enhancing the enhancing of the environment.

4. While financed by Federal government, it can be administered by local governments, which can respond to particular areas of social, economic and environmental need.
5. It embraces a counter-inflation policy that does not resort to unemployment.
6. Budget deficits do not matter; and
7. There are considerable efficiency, equity and dynamic gains.

For more information, see Mitchell (1998) or visit the WWW site of the Centre of Full Employment and Equity at http://e1.newcastle.edu.au/coffee

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