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The Job Guarantee and Inflation Control

William Mitchell

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Centre of Full Employment and Equity
The University of Newcastle, Callaghan NSW 2308, Australia
Home Page: http://e1.newcastle.edu.au/coffee
Email: coffee@newcastle.edu.au

"What motivates people and leads them to high endeavor is not fear but hope."
Arthur Altmeyer (1968)

1 Introduction

In this paper, some features of the Job Guarantee (JG) model are developed (see Mitchell, 1996, 1998, 1999a, 1999b, 1999c). Under the JG scheme, the government continuously absorbs workers displaced from private sector employment. The "buffer stock" employees would be paid the minimum wage, which defines a wage floor for the economy. Government employment and spending automatically increases (decreases) as jobs are lost (gained) in the private sector. The approach generates full employment and price stability. The JG wage provides a floor that prevents serious deflation from occurring and defines the private sector wage structure.

The standard Post Keynesian view that mass unemployment is due to deficient demand, which can be cured if the public sector stimulates spending using traditional fiscal and monetary instruments fails to take into account issues of environmental sustainability. Even if it was possible to expand demand enough to promote growth sufficient to keep pace with labour force growth and productivity growth and mop up the huge stocks of long-term unemployment, how could the natural ecosystems, already under great strain, cope? There is a need to change the composition of final output towards environmentally sustainable activities. These are unlikely to be produced by the private sector because they have heavy public good components. They are ideal targets for public sector initiative. Numerous service jobs could provide immediate benefits to the society, when filled by JG workers. These include urban renewal projects and other environmental and construction schemes (reforestation, sand dune stabilisation, river valley erosion control and the like), personal assistance to pensioners, assistance in community sports schemes, and many more.

The JG policy is thus an ideal vehicle to provide more meaningful and paid work for those who are unemployed and to simultaneously reduce environmentally damaging

production practices. It is not increased demand *per se* that is necessary but increased demand in certain areas of activity.

Ultimately, the persistently high unemployment has arisen because there is a lack of collective will. It has not been due to excessively high real wages or deficient aggregate demand. These are only proximate causes, if causes at all. The lack of collective will has been the principal casualty of the influence of rationalism justified by an appeal to the NAIRU concept, which is both theoretically and empirically flawed. While it is likely that the proximate cause of unemployment has been a persistent deficiency of aggregate demand due to an improper use of fiscal and monetary policy since the mid-1970s, the underlying cause is that the rise of free market ideology has meant that we are no longer prepared to bear some costs ourselves to ensure others have employment. The only way we will return to full employment is if the costs and benefits of economic activity are shared. The public sector must be the vehicle to restore the collective will.

In this paper I develop the argument that the NAIRU is a costly and unreliable target for policy makers to pursue. It is argued that full employment demands that policy emphasise the number of jobs rather than some politically acceptable (though high) unemployment rate. Many commentators who are otherwise sympathetic to the goals of full employment are skeptical of a policy approach that chooses along the lines of the JG to endogenise the budget deficit. There is a fear that it will make inflation impossible to control. To answer these claims, the inflation control mechanisms inherent in the JG model are outlined. The final section indicates other issues that are relevant but not addressed.

2 What is Full Employment?

Figure 1 charts the history of inflation and unemployment in Australia since the early-1960s. The experience is common for most OECD countries (Mitchell, 1996, 1999a). There have been two striking developments in economics in this period. On the one hand, a major theoretical revolution became entrenched in macroeconomics (from Keynesianism to Monetarism); while on the other hand; unemployment rates have persisted at the highest levels known in the Post World War II period. The two

developments are inconsistent.[1] In this section, the concept of full employment is developed and the paradigm shift in macroeconomics, which has resulted in what we might term the unemployment generation, is explained.

A focus on jobs

The emphasis of macroeconomic policy in the period immediately following the Second World War was to promote full employment. Inflation control was not considered a major issue even though it was one of the stated policy targets of most governments. In this period, the memories of the Great Depression still exerted an influence on the constituencies that elected the politicians. The experience of the Second World War showed governments that full employment could be maintained with appropriate use of budget deficits. The employment growth following the Great Depression really only accelerated with the onset of the War. All the orthodox neoclassical remedies that had been tried during the 1930s largely failed. Following World War II, the problem that had to be addressed by governments was how to translate the full employed war economy with extensive civil controls and loss of liberty into a fully employed peacetime model.

The first major statement addressing this problem came in the form of William Beveridge's (1944) *Full Employment in a Free Society*.[2] This was consistent with the new Keynesian orthodoxy of the time, which saw unemployment as a systemic failure and moved the focus from the ascriptive characteristics of the unemployed themselves and the prevailing wage levels. Beveridge (1944, 123-135) said:

> The ultimate responsibility for seeing that outlay as a whole, taking public and private outlay together, is sufficient to set up a demand for all the labour seeking employment, must be taken by the State…

The emphasis was on jobs. Beveridge defined full employment as an excess of vacancies at living wages over unemployed persons. Arthur Altmeyer [3] (1968) in one of his last speeches talked about the adoption of Beveridge's Report on Social Security by Churchill, who Altmeyer said, "was on the side of social security and opposed to the alms house which had been tried for several hundred years and had failed." Again, the late William Vickrey (1993) said,

> I define genuine full employment as a situation where there are at least as many job openings as there are persons seeking employment, probably calling for a rate of unemployment, as currently measured, of between 1 and 2 percent.

In Australia, for example, the Reserve Bank of Australia (RBA) was constituted to pursue full employment and one of its three goals. The functions of the RBA Board are set out in Section 10 of the Reserve Bank Act 1959. Subsection 2 says:

> (2) It is the duty of the Reserve Bank Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and … will best contribute to:
>
> (a) the stability of the currency of Australia;
> (b) the maintenance of full employment in Australia; and
> (c) the economic prosperity and welfare of the people of Australia.

The post WWII period was marked by governments maintaining levels of demand sufficient to ensure enough jobs were created to meet the demands of the labour force, given labour productivity growth. Governments used a range of fiscal and monetary measures to stabilise the economy in the face of fluctuations in private sector spending. Unemployment rates were usually below 2 per cent throughout this period. Importantly, the economies that avoided the plunge into high unemployment in the 1970s maintained a "sector of the economy which effectively functions as an employer of the last resort, which absorbs the shocks which occur from time to time..." (Ormerod, 1994a: 203). Figure 1 shows that the performance of the labour market in the 1960s was in stark contrast to what followed.

The focus on unemployment

Economists did not think about full employment in this positive way for too long and instead shifted the focus to unemployment. Initially this involved a debate about what constituted the irreducible minimum rate of unemployment (see Bancroft, 1950; Dunlop, 1950; Harris, 1950; Stewart, 1950, and Slichter, 1950). But soon the debate became tangled up in models of unemployment and inflation – the Phillips curve era had begun (see Mitchell, 1999d). The Phillips curve in its various guises proposes a relationship between unemployment and inflation and raises the question of the existence and nature of a trade-off between nominal and real economic outcomes.

The Keynesian orthodoxy considered real output (income) and employment as being demand-determined in the short-run, with price inflation being explained by a negatively sloped Phillip's curve (in both the short-run and the long-run). Policy-makers were supposed to choose between alternative mixes of unemployment and inflation subject to a socially optimal level of unemployment and inflation. Significantly, the concept of full employment gave way to the rate of unemployment that was politically acceptable in the light of some accompanying inflation rate. Full employment was no longer debated in terms of a number of jobs.

The paradigm shift - the Natural Rate Hypothesis

The concept of full employment, in the sense outlined above, lost meaning with development of the expectations-augmented Phillips curve of Friedman (1968) and Phelps (1967, 1968). This model spearheaded the resurgence of pre-Keynesian macroeconomic thinking in the form of Monetarism. The embedded Natural Rate Hypothesis (NRH) outlined a natural rate of unemployment (NRU), where the inflation-unemployment tradeoff was allegedly a trade-off between unemployment and unexpected inflation. As workers gained more information the trade-off vanishes. At this point there is only one unemployment rate consistent with stable inflation – the NRU. Friedman (1968: 60) stated, “There is no long-run, stable trade-off between inflation and unemployment.”

These developments represented a major theoretical break from the previous versions of the Phillips curve. The pre-Monetarist Phillips curve models were based on a disequilibrium notion of the relationship between inflation and unemployment in that they modelled the adjustment of prices and wages to some labour market imbalance between supply and demand. The causality was strictly from the labour market disequilibrium to the price adjustment function. There was no presumption that full employment is inevitable or a tendency of a capitalist monetary economy. The Friedman-Phelps story and the later developments under the rubric of rational expectations and the New Classical School are, instead, based on a market clearing relation and the causality is

reversed. Unemployment is considered to be voluntary and the outcome of optimising choices by individuals between work (bad) and leisure (good). In the natural rate world of Friedman and Phelps, the Central Bank can promote variations in the unemployment rate by introducing unforeseen changes in inflation, a temporary capacity allowed due to expectational inertia on behalf of the workers. There is no theory in the natural rate hypothesis that changes in the unemployment rate cause changes in inflation. Full employment is assumed to prevail (with unemployment at the natural rate) unless there are errors in interpreting price signals. The tendency is always to restore full employment by market mechanisms. There is no discretionary role for aggregate demand management.

The rise in acceptance of Monetarism and its new classical counterpart was not based on an empirical rejection of the Keynesian orthodoxy, but "was instead a triumph of *a priori* theorising over empiricism, of intellectual aesthetics over observation and, in some measure, of conservative ideology over liberalism. It was not, in a word, a Kuhnian scientific revolution" (Blinder 1988: 278). However, the shift in the Phillips curve in the 1970s as the OECD economies began to fail was a strong empirical endorsement for the NRU theory, despite the fact that the instability came from the supply side (see Figure 2). Any Keynesian remedies proposed to reduce unemployment were met with derision from the bulk of the profession who had embraced the NRH and its policy implications. The NRH was now the characterisation of full employment and it was asserted that the economy would always tend back to a given NRU, no matter what had happened to the economy over the course of time. Time and the path the economy traced through time were thus irrelevant. Only microeconomic changes would cause the NRU to change. Accordingly, the policy debate became increasingly concentrated on deregulation, privatisation, and reductions in the provisions of the Welfare State (Thurow, 1983; Ormerod, 1994a). Unemployment continued to persist at high levels.

The NAIRU

Modigliani and Papademos (1975) first introduced the concept of the non-accelerating inflation rate of unemployment (NAIRU). Their approach was in the Phillips mould in

the sense that movements in the unemployment rate from some steady-state rate (defined in terms of the rate at which inflation was stable) would promote opposite movements in inflation. Modigliani and Papademos (1975: 142) said a NAIRU existed, "such that, as long as unemployment is above it, inflation can be expected to decline". Various theoretical structures support this conclusion. It can arise in a simple excess demand model where wage pressure builds as the labour market tightens and the firms pass the rising costs on in the form of higher inflation (Modigliani and Papademos, 1975). Marxist-inspired models where inflation arises due to incompatible claims on existing real income also can be used (Rowthorn, 1980). Whatever theoretical construct is used to underpin the model the conclusion is simple: there is a defined unemployment rate, which is cyclically-invariant, where price inflation is stable (see Mitchell, 1987a, 1987b for discussion of the importance of the assumption of cyclical invariance).

The notion of a constant NAIRU that conditions the potential for inflation in the economy has dominated public policy makers since the first oil shocks of the 1970s. Monetarist "fight-inflation-first" strategies exacted a harsh toll in the form of persistently high unemployment. Full employment as initially conceived was abandoned (Hughes, 1980).

The Reserve Bank and the NAIRU

The RBA has been significantly influenced by the NAIRU concept. It conducts monetary policy in Australia to meet an openly published inflation target. It uses its control of the cash rate (market rate on overnight funds) to influence short-term interest rates. To what extent is the RBA working within its legal charter, which as noted above includes the maintenance of full employment?

In September 1996, the Treasurer and Reserve Bank Governor issued the *Statement on the Conduct of Monetary Policy*, which set out how the RBA was approaching the attainment of its three identified policy goals. It elaborated the adoption of inflation targeting as the primary policy target. The RBA (1996: 2) said it had "adopted the objective of keeping underlying inflation between 2 and 3 percent, on average, over the cycle." In terms of the priorities, the Statement said (RBA, 1996: 2):

> These objectives allow the Reserve Bank to focus on price (currency) stability while taking account of the implications of monetary policy for activity and, therefore, employment in the short term. Price stability is a crucial precondition for sustained growth in economic activity and employment.

The rest of the text emphasised the need to target inflation and inflationary expectations and the complementary role that "disciplined fiscal policy" had to play. There was no discussion about the links between full employment and price stability except that price stability in some way generated full employment even though the former required disciplined monetary and fiscal policy to achieve it. In a stagflation environment if price spirals reflect cost-push and distributional conflict factors, such an approach can surely never work. In the JG approach the causality and emphasis is reversed – the creation of full employment guarantees price stability. Without the JG approach, the RBA will always control inflation by imposing unemployment.

How does the RBA answer this apparent contradiction? The RBA says that it only has to meet an average inflation target over a business cycle. Edey (1999), who is the Head of Economic Analysis at the RBA argues that the Bank is sensitive to the state of capacity in the economy when it pursues a change of interest rates aiming at the inflation target.

> Consider, for example, a situation in which inflation is regarded as likely to be too high. A rise in interest rates will help to reduce inflation but can also be expected to reduce growth. How far and how quickly interest rates should be raised will depend partly on how the economy is performing at the time. If the economy is operating with very little surplus capacity or is overheating, a fairly rapid rise in interest rates might be called for; if, on the other hand, there is significant surplus capacity in the economy, the appropriate increase in rates might be more gradual. Thus it makes sense for policy to take account of short-run cyclical developments in pursuing the inflation target.

But in the next paragraph, Edey (1999) says that the trade-off between inflation and unemployment is not a long-run concern because, following NAIRU logic, it simply doesn't exist.

> Ultimately the growth performance of the economy is determined by the economy's innate productive capacity, and it cannot be permanently stimulated by an expansionary monetary policy stance. Any attempt to do so simply results in

> rising inflation. The Bank's policy target recognises this point. It allows policy to take a role in stabilising the business cycle but, beyond the length of a cycle, the aim is to limit inflation to the target of 2-3 per cent. In this way, policy can provide a favourable climate for growth in productive capacity, but it does not seek to engineer growth in the longer run by artificially stimulating demand.

The RBA is silent, however, about the stock of long-term unemployed that exists beyond the cycle. The empirical evidence is clear that the economy has not provided enough jobs since the mid-1970s and the conduct of monetary policy has contributed to the malaise. The RBA has forced the unemployed to engage in an involuntary fight against inflation and the fiscal authorities have further worsened the situation with complementary austerity.

3 The NAIRU as a guide to policy

How useful is the NAIRU as a guide to policy? What is apparent from Figure 1 is the disparate behaviour of the inflation rate and the unemployment rate. The inflation rate has gone through three notable phases in the period shown: low inflation up until about 1973 (averaging 2.4 per cent per annum throughout the 1960s), then a period of high inflation (peaking to 16.2 per cent in March 1975) mostly instigated by the supply side oil shocks in 1973 and 1979. From March 1973 to December 1983, inflation averaged 10.6 per cent per annum. The high inflation period was not contained fully until the late 1980s when Australia entered a period of policy-induced recession. Since that time, inflation has been generally low and averaged 1.8 per cent per annum since December 1991 and has returned to it pre-oil shock values.

The unemployment rate shows a different pattern. Prior to the oil price hikes it was generally below 2 per cent but began rising sharply as authorities tightened demand to defend the economy against the supply shock. Some authors have claimed that the unemployment was due to real wage rises in that period but it is difficult to use this argument consistently across the entire period (Hughes, 1980). The simultaneous rise in inflation and unemployment is entirely consistent with an unexpected supply shock being received by the economy. A further escalation in the unemployment rate accompanied the harsh recession of the early 1980s but in this period it was mostly driven by demand side

restrictions (again consistent with the declining inflation rate). Sustained demand side growth from 1983 until the later 1980s saw a steady fall in the unemployment rate with no discernable pattern in the inflation rate. The harsh interest rate policy of the late 1980s again saw the unemployment rate rise sharply to new highs (peaking at 11.1 per cent in September 1993) and averaged 10.4 per cent for the three-year period from March 1991. Some improvement has occurred since that time but the level of the unemployment rate has persisted above the average level of the two previous plateaus. This behaviour can be characterised as a series of mean shifts accompanied by a very high degree of persistence (Mitchell, 1993).

From the graph, it is difficult to construe an unemployment rate over the period where you would witness accelerating inflation if the actual unemployment rate were lower or decelerating inflation if the unemployment rate was higher. There is little support for the NAIRU proposition. Table 1 compares the frequency of accelerating inflation with decelerating inflation for given ranges of the unemployment rate. If there were a well-defined and stable NAIRU we would expect to find some unemployment rate range where all the changes in inflation were negative and below that range most of the changes in inflation positive. The results clearly do not support the existence of such a rate. What we can conclude is that we are unlikely to get any definitive information from the unemployment data about the likely movements in the inflation rate. Appendix A reports Phillips curve regressions, which fail to find any evidence of a stable NAIRU specification. The evidence is that the relationship between unemployment and inflation is subjected to continual shocks from both the demand and supply side. Chang (1997) says:

> In practice, the concept of a nonaccelerating inflation rate of unemployment is not useful for policy purposes. First, the NAIRU moves around. Second, uncertainty about where the NAIRU is at any point of time is considerable. Third, even if we knew where the NAIRU were, it would be sub optimal to predict inflation solely on the basis of the comparison of unemployment against the NAIRU. A policy of raising the fed funds rate when unemployment falls below the NAIRU may be ineffective...even if the NAIRU were constant, its location were known and all shocks to the economy were to come from the demand side. Implementing such policy would likely induce changes in the expectations and behavior of the private

sector an important additional reason to be skeptical about using the NAIRU for policy.

While there may be stability between inflation and unemployment for a period (see Figure 3), a sudden shock, especially from the supply side (as in 1974, for example) can exacerbate the costs of unemployment resulting from a deflationary strategy, which is attempting to exploit a given Phillips curve. Evidence from the OECD experience over the last 25 years suggests that this policy is effective in bringing inflation down (see Mitchell, 1996, 1998; Cornwall, 1983). Rarely are the costs of such a strategy computed or addressed despite the overwhelming evidence that the costs of sustained high unemployment are enormous (Mitchell and Watts, 1997, Mitchell, 1999e).

Solow and Taylor (1999) emphasise the dangers inherent in following a NAIRU strategy to control inflation. Alcaly (1999) says that Solow "admits that there are limits to growth and unemployment, but holds that we don't know what they are. In his view the harm to an economy caused by restricting growth prematurely through higher interest rates is very great, and that caused by a rise in inflation relatively modest." Solow (1999, 8-11) argues that part of the damage is to worsen the inflation constraint by sustaining high unemployment for lengthy periods of time. The unemployed adjust to a life on welfare and other means and require higher wages to induce labour supply.

The overwhelming quandary that the NAIRU approach to inflation control faces is whether the economy, once deflated by restrictive aggregate demand management, can be restarted without inflation. If the underlying causes of the inflation are not addressed a demand expansion will merely reignite the tensions and a wage-price outbreak is likely (Cornwall, 1983; Rowthorn, 1980). As a basis for policy the NAIRU approach is thus severely restrictive and provides no firm basis for full employment and price stability.

4 The development of the Job Guarantee approach

In Australia, despite the paradigm shift in macroeconomics, there was still evidence to support the use of expansionary fiscal and monetary policy and public sector job creation (for example, Mitchell, 1987a, 1987b, 1993, 1994a, 1994b, 1996; Mitchell *et. al.*, 1995).

The solutions proposed, however, relied heavily on income policy guidelines and were not, in retrospect, comprehensive enough. Further, the stimulus that would be forthcoming was not conceived to be focused enough to support environmental sustainability – a goal usually ignored in orthodox macroeconomics. In this context, the JG reflects work that was conceived when I was a fourth-year student at the University of Melbourne.

The logic of the policy came to me during a series of lectures in the Honours program on the Wool Floor Price Scheme introduced by the Commonwealth Government of Australia in November 1970. The scheme was relatively simple and worked by the Government establishing a floor price for wool after hearing submissions from the Wool Council of Australia and the Australian Wool Corporation (AWC). The Government then guaranteed that the price would not fall below that level. There was a lot of lobbying to get the floor price as high above the implied market price. The price was maintained by the AWC purchasing stocks of wool in the auction markets. The financing of the purchases came from a Market Support Fund (MSF) accumulated by a small contribution from growers based on the value of its clip. Fund shortages were made up with Government-guaranteed loans. The major controversy for economists was the "tinkering with the price mechanism" (Throsby, 1972: 162). There was an issue as to whether it was price stabilisation or price maintenance. This was not unimportant in a time when prices were in sectoral decline and a minimum guaranteed floor price implied ever-increasing AWC stocks. Other problems included the problems of substitutability from synthetic fibres and the maintenance of production levels, which would by themselves continue to depress prices. The debate over the scheme (adequately summarised by Parish, 1964; and Lloyd, 1965) focused on the price intervention.

By applying reverse logic one could utilise the concept without encountering the problems of price tinkering. In effect, the Wool Floor Price Scheme generated "full employment" for wool production. Clearly, there was an issue in the wool situation of what constituted a reasonable level of output in a time of declining demand. The argument is not relevant when applied to available labour. I define full employment to be

the state where there was no involuntary unemployment and that is ensured by a sufficient number of jobs to be available in relation to the supply of labour at the current money wage rates. This amounts to a rejection of the notion that all unemployment is voluntary and that full employment can be defined by market relations – the intersection of the labour demand and supply curves at some "equilibrium price" (for example, Phelps, 1967; Friedman, 1968; and Lucas and Rapping, 1969). Accordingly, mass unemployment is construed as a macroeconomic problem related to deficient demand, which in turn reflects a deficient budget deficit. The reverse logic implies that if there is a price guarantee below the "prevailing market price" and a buffer stock of working hours constructed to absorb the excess supply at the current market price, then we can generate full employment without encountering the problems of price tinkering. That idea was the seed of the JG model.[4]

The work of Benjamin Graham (1937) is also instructive. He discusses the idea of stabilising prices and standards of living by surplus storage. He documents the ways in which the government might deal with surplus production in the economy. Graham (1937: 18) says, "The State may deal with actual or threatened surplus in one of four ways: (a) by preventing it; (b) by destroying it; (c) by 'dumping' it; or (d) by conserving it." In the context of an excess supply of labour, governments had at this time and now adopted the "dumping" strategy via the NAIRU. It made much better sense to use the conservation approach. Graham (1937: 34) notes,

> The first conclusion is that wherever surplus has been conserved primarily for future *use* the plan has been sensible and successful, unless marred by glaring errors of administration. The second conclusion is that when the surplus has been acquired and held primarily for future *sale* the plan has been vulnerable to adverse developments …

The distinction is important in the JG model development. The Wool Floor Price Scheme was an example of storage for future sale and was not motivated to help the consumer of wool but the producer. The JG policy is an example of storage for use where the "reserve is established to meet a future need which experience has taught us is likely to develop" (Graham, 1937: 35). Graham also analysed and proposed a solution to the problem of

interfering with the relative price structure when the government built up the surplus. In the context of the JG policy, this means setting a buffer stock wage below the private market wage structure, unless strategic policy in addition to the meagre elimination of the surplus was being pursued. For example, the government may wish to combine the JG policy with an industry policy designed to raise productivity. In that sense, it may buy surplus labour at a wage above the current private market minimum. In the first instance, the basic JG model with a wage floor below the private wage structure shows how full employment and price stability can be attained. While this is an eminently better outcome in terms resource use and social equity, it is just the beginning of the matter.

Graham (1937: 42) considered that the surplus should "not be pressed for sale until an effective demand develops for it." In the context of the JG policy, this translates into the provision of a government job for all labour, which is surplus to private demand until such time as private demand increases.

5 The Job Guarantee Model and Inflation

In this section we focus on the inflation control. There are three options available to an economy, which desires price stability. First, to use unemployment as a tool to suppress price pressures as in the NAIRU approach. Second, introduce the JG policy and use the Buffer Employment Ratio (BER) to control inflation. Third, introduce the JG policy and augment it with an incomes policy. Critics of the JG approach argue that the rising budget deficits implied would be inflationary, as the NAIRU constraint would be violated. We consider this argument in this section.

The role of unemployment in inflation control

The OECD experience of the 1990s shows that high and prolonged unemployment will eventually result in low inflation (Mitchell, 1996; Sawyer (1985: 17) argues that unemployment acts as a "control mechanism, albeit a socially and economically inefficient one." Unemployment can temporarily balance the conflicting demands of labour and capital by disciplining the aspirations of labour so that they are compatible with the profitability requirements of capital (Kalecki, 1971). Similarly, low product

market demand, the analogue of high unemployment suppresses the ability of firms to pass on prices to protect real margins. The lull in the wage-price spiral could be termed a macroequilibrium state in the sense that inflation is stable. The implied unemployment rate under this concept of inflation is termed the macroequilibrium unemployment rate (MRU) by Mitchell (1987a) and has no connotations of voluntary maximising individual behaviour, which underpins the NAIRU concept (Sawyer, 1983). As a result of the labour market changes, which accompany the business cycle, the MRU is considered to be cyclically sensitive and rises with the actual rate of unemployment. In other words, aggregate demand changes can influence the long-run steady-state unemployment rate subject to capacity constraints. Clearly there is a minimum irreducible unemployment rate that is equal to frictional unemployment. Steady-state rates above that are subject to change as the level of activity varies (Mitchell, 1987a).

Wage demands in the private sector are thus inversely related to the actual number of unemployed who are substitutes for those currently employed. When the economy slows, many workers lose their skills through obsolescence and new entrants are denied relevant skills. Structural imbalance, which refers to the inability of the actual unemployed to constitute an effective excess supply, rises in the downturn. Increasing the structural imbalance thus drives a wedge between effective and actual excess supply. The effective excess supply is the threat component of unemployment. To some degree, this insulates the wage demands from the cycle. The more rapid the cyclical adjustment, the higher is the unemployment rate associated with price stability.

Stimulating jobs growth decreases the wedge because the unemployed develop new and relevant work skills. These upgrading effects provide an opportunity for real growth to occur as the MRU declines. Why will firms employ those without skills? An important reason is that hiring standards drop as the upturn begins. Rather than disturb wage structures, firm offer training with entry-level jobs. While the increased training opportunities increase the threat to those who were insulated in the recession, this is offset to some degree by the reduced probability of becoming unemployed.

The fact that at some stable inflation rate we can associate an unemployment rate and that it is increases in the latter which ensure the former does not provide a theory of why there are income distribution conflicts between powerful groups in the economy. We might also call this unemployment rate the NAIRU but in doing so we add nothing to the understanding of the inflation process. It is clear that different theoretical underpinnings can be given to the observation and each theoretical structure brings with it an entirely different comprehension of the role of the NAIRU and what it implies for activist government agendas designed to provide full employment.

Inflation Control - the NAIBER

Suppose we characterize an economy with two labor markets: A (primary) and B (secondary) broadly corresponding to the dual labor market depictions. Prices are set according to markups on unit costs in each sector. Wage setting in A is contractual and responds in an inverse and lagged fashion to relative wage growth (A/B) and to the wait unemployment level (displaced Sector A workers who think they will be reemployed soon in Sector A). A government stimulus to this economy increases output and employment in both sectors immediately. Wages are relatively flexible upwards in Sector B and respond immediately. The compression of the A/B relativity stimulates wage growth in Sector A after a time. Wait unemployment falls due to the rising employment in A but also rises due to the increased probability of getting a job in A. The net effect is unclear. The total unemployment rate falls after participation effects are absorbed.

The wage growth in both sectors may force firms to increase prices, although this will be attenuated somewhat by rising productivity as utilization increases. A combination of wage-wage, and wage-price mechanisms in a soft product market can then drive inflation. This is a Phillips curve world. To stop inflation, the government has to repress demand. The higher unemployment brings the real income expectations of workers and firms into line with the available real income and the inflation stabilizes - a typical NAIRU story.

Introducing the JG policy into the depressed economy puts pressure on Sector B employers to restructure their jobs in order to maintain a workforce. The JG wage sets a floor in the economy's cost structure for given productivity levels. The dynamics of the economy change significantly. The elimination of all but wait unemployment in Sector A and frictional unemployment does not distort the relative wage structure so that the wage-wage pressures that were prominent previously are now reduced. But the rising demand softens the product market, and demand for labor rises in Sector A. There are no new problems faced by employers who wish to hire labor to meet the higher sales levels. They must pay the going rate, which is still preferable, to appropriately skilled workers, than the JG wage level. The rising demand per se does not invoke inflationary pressures as firms increase capacity utilization to meet the higher sales volumes.

What about the behaviour of workers in Sector A? Wendell Gordon (1997: 833) said, "If there is a job guarantee program, the employees can simply quit an obnoxious employer with assurance that they can find alternative employment." With the JG policy, wage bargaining is freed from the general threat of unemployment. However, it is unclear whether this freedom will lead to higher wage demands than otherwise. In professional occupational markets, it is likely that some wait unemployment will remain. Skilled workers who are laid off are likely to receive payouts that forestall their need to get immediate work. They have a disincentive to immediately take a JG job, which is a low-wage and possibly stigmatized option. Wait unemployment disciplines wage demands in Sector A. However, the demand pressures may eventually exhaust this stock, and wage-price pressures may develop.

At first blush, it might appear that the BER would have to be greater than the NAIRU for an equivalent amount of inflation control. This is because the JG workers will have higher incomes and so a switch to this policy would see demand levels higher than under a NAIRU world. But the JG provides better inflation proofing than a NAIRU approach because the JG workers represent a more credible threat to the current private sector employees. In other words, the JG pool is a more effective excess supply of labour.

The buffer stock employees are more attractive than when they were unemployed, not the least because they will have basic work skills, like punctuality, intact. This reduces the hiring costs for firms in tight labor markets who previously would have lowered hiring standards and provided on-the-job training. They can thus pay higher wages to attract workers or accept the lower costs that would ease the wage-price pressures. The JG policy thus reduces the "hysteretic inertia" embodied in the long-term unemployed and allows for a smoother private sector expansion because growth bottlenecks are reduced.

A further source of cost pressure comes via the exchange rate for small trading economies like Australia. Under a fixed exchange rate regime, unless there is a coordinated fiscal policy among countries it would be difficult for a small open economy to pursue its own full employment strategy. With higher spending on imports arising from the domestic expansion, the stimulus spreads throughout the fixed exchange rate bloc and the small country would face a borrowing crisis that would negate its full employment ambitions.

It is easy to see that a JG model requires a flexible exchange rate to be effective. We can identify two external effects. First, given the higher disposable incomes that the JG workers would have compared to if they were unemployed imports would likely rise. With a flexible exchange rate, the increase in imports would promote depreciation in the exchange rate. We should expect the current account to improve and net exports increase their contribution to local employment. The result depends on the estimates of the export and import price elasticities. Recent work by the Dwyer and Kent (1993) finds that import elasticities are small (around –0.5). We interpret this as saying that following depreciation, import spending will actually rise because while we are importing less goods and services we are paying disproportionately more for them. The improvement in the current account thus depends on the estimate of the export elasticity. State of Play 8 (1995: 125) says, “Fortunately, this seems to be the case … the supply responses to higher prices are thought to be strong in both agriculture and mining, and the numbers for manufactures are … embarrassingly high. … There is little objective reason to be worried by elasticity pessimism.” (see also Bullock, Grenville and Heenan, 1993). Vickrey (1996)

said, “The danger of world speculative gyrations under freely floating conditions would be greatly diminished under a well-established full-employment policy, especially if combined with a third dimension of direct control over the overall domestic price level.”

The direct control to allow the depreciation to be insulated from the wage-price system could be an income policy. If the increased spending led to depreciation, through rising imports, a comprehensive incomes policy would be required to reduce inflationary pressures. Workers and firms would have to agree to allow real the depreciation to stick, as part of the return to the collective will. For everyone to have jobs those who are currently employed would have to sacrifice some real income to permit other to increase their claim on it. The scheme itself would not force up labour costs

The JG wage provides a floor that prevents serious deflation from occurring and defines the private sector wage structure. However, if the private labor market is tight, the non-buffer stock wage will rise relative to the JG wage, and the buffer stock pool drains. The smaller this pool, the less influence the JG wage has on wage patterning. Unless the government stifles demand, the economy will then enter an inflationary episode, depending on the behavior of labor and capital in the bargaining environment.

In the face of wage-price pressures, the JG approach maintains inflation control by choking aggregate demand and inducing slack in the non-buffer stock sector. The slack does not reveal itself as unemployment, and in that sense the JG may be referred to as a "loose" full employment. This leads to the definition of a new concept, the Non-Accelerating Inflation Buffer Employment Ratio (NAIBER), which, in the buffer stock economy, replaces the NAIRU/MRU as an inflation control mechanism. The Buffer Employment Ratio (BER) is the ratio of Job Guarantee to total employment.

As the BER rises, due to an increase in interest rates and/or a fiscal tightening, resources are transferred from the inflating non-buffer stock sector into the buffer stock sector at the fixed buffer stock wage. This is the vehicle for inflation discipline. The disciplinary role of the NAIRU, which forces the inflation adjustment onto the unemployed, is

replaced by the compositional shift in sectoral employment, with the major costs of unemployment being avoided. That is a major advantage of the JG approach. The only requirement is that the buffer stock wage be a floor and that the rate of growth in buffer stock wages be equal or less than the private sector wages growth.

The maintenance of full employment - Kalecki and the Captains of Industry

So far we have analysed the likely effects that would accompany the introduction of the JG and compared the outcomes to a NAIRU economy. However, there are further issues that arise when we consider the *maintenance* of full employment using the JG policy. While orthodox economists typically attack the JG policy for fiscal reasons, economists on the left also challenge its validity and effectiveness. In 1943, Michal Kalecki published the *Political Aspects of Full Employment*, in the Political Quarterly, which laid out the blueprint for socialist opposition to Keynesian-style employment policy. The criticisms would be equally applicable to a JG policy. Kalecki (1971: 138) said, "the assumption that a Government will maintain full employment in a capitalist economy if it knows how to do it is fallacious. In this connection the misgivings of big business about maintenance of full employment by Government spending are of paramount importance." The alleged opposition by big business to full employment mystified Kalecki because the higher output and employment would seemingly be of benefit to workers and capital alike.[5]

Kalecki (1971: 139) lists three reasons why the industrial leaders would be opposed to full employment "achieved by Government spending." The first is an assertion that the private sector opposes government employment *per se*. The second is an assertion that the private sector does not like public sector infrastructure development or any subsidy of consumption. The third is more general and involves a dislike by the private sector "of the social and political changes resulting from the *maintenance* of full employment" (emphasis in original).

One is tempted to respond to Kalecki with the reference to the long period of growth and full employment from the end of WWII up until the first oil shock (excluding the Korean War). As we discussed in Section 2, most economies experienced strong employment growth, full employment and price stability, and strong private sector investment over that period under the guidance of interventionist government fiscal and monetary policy. This period of relative stability was only broken by a massive supply shock, which then led to ill advised policy changes that provoked the beginning of the malaise we are still facing after 25 years. In Kalecki's defense it might be argued in reply that it took 30 odd years of the Welfare State to generate the inflationary biases that were observed in the 1970s (Cornwall, 1983).

Kalecki (1971: 139-140 explains how the dislike by business leaders of government spending "grows even more acute when they come to consider the objects on which the money would be spent: public investment and subsidising mass consumption." If public spending overlaps with private spending (the classic example is toothpaste) then "the profitability of private investment might be impaired and the positive effect of public investment upon employment offset by the negative effect of the decline in private investment." (Kalecki, 1971: 140). Business leaders will be very well suited according to Kalecki if there is no such overlap. But ultimately the government will want to move towards nationalisation of industries to broaden the scope for investment. This criticism is inapplicable to a buffer stock route to full employment. JG jobs are most needed in areas that have been neglected or harmed by capitalist growth. The chance of overlap and therefore substitution is minimal. Of-course, I am not arguing that as an industry policy the government may deliberately target an overlap to drive inefficient private capital out.

Kalecki (1971: 140) acknowledges that the "pressure of the masses" in democratic systems may thwart the capitalists and allow the government to engage in job creation. His principle objection then seems to be that "the *maintenance* of full employment would cause social and political changes which would give a new impetus to the opposition of the business leaders." The issue at stake is the relationship between the threat of dismissal and the level of employment. Kalecki (1971: 140-41) says:

> Indeed, under a regime of permanent full employment, ‘the sack’ would cease to play its role as a disciplinary measure. The social position of the boss would be undermined and the self assurance and class consciousness of the working class would grow.

Kalecki is really considering a fully employed private sector that is prone to inflation rather than a mixed private-JG economy. The JG creates loose full employment rather than tight full employment because the buffer stock wage is fixed (growing with national productivity). The issue comes down to whether the JG pool is a greater or lesser threat to those in employment than the unemployed when wage bargaining is underway. This is particularly relevant when we consider the significance of the long-term unemployed in total unemployment. It can be argued that the long-term unemployed exert very little downward pressure on wages growth because they are not a credible substitute. The JG workers, however, do comprise a credible threat to the current private sector employees for reasons noted above.

The JG pool provides business with a fixed-price stock of skilled labour to recruit from. In an inflationary episode, business is more likely to resist wage demands from its existing workforce because it can achieve cost control. In this way, longer term planning with cost control is achievable. So in this sense, the inflation restraint exerted via the NAIBER is likely to be more effective than using a NAIRU strategy.

The International Labour Organisation (1996/97) says, "prolonged mass unemployment transforms a proportion of the unemployed into a permanently excluded class." As these people lose their skills, warns the ILO, they are no longer considered as candidates for employment and "cease to exert any pressure on wage negotiations and real wages." The result is that "the competitive functioning of the labour market is eroded and the influence of unemployment on real wages is reduced."

In what form does Kalecki see the opposition by capitalists coming? I am leaving aside the political rationale where presumably funds directed to sympathetic political parties and control of the media could all be effective means to oppose an incumbent

government. He is very vague about what might transpire. Kalecki (1971: 142-143) outlines that counter-stabilisation policy is not a concern of business as long as the "businessman remains the medium through which the intervention is conducted." Such intervention should aim to stimulate private investment and should not "involve the Government either in … (public) investment or … subsiding consumption." Kalecki (1971: 144) says if attempts are made to

> maintain the high level of employment reached in the subsequent boom a strong opposition of 'business leaders' is likely to be encountered. As has already been argued, lasting full employment is not at all to their liking. The workers would 'get out of hand' and the 'captains of industry' would be anxious to teach them a lesson.

But how would they do this? Kalecki seems to imply that the reaction would work via business and rentier interests pressuring the government to cut its budget deficit. Presumably, corporate investors could threaten to withdraw investment. An examination of the investment to income ratio in Australia over the period since the 1960s is instructive. Figure 4 shows the investment ratio and the unemployment rate for Australia from 1960 and 1998. The investment ratio moves as a mirror image to the unemployment rate, which reinforces the demand deficiency explanation for the swings in unemployment. The rapid rise in the unemployment rate in the early 1970s followed a significant decline in the investment ratio. The mirrored relationship between the two resumed albeit the unemployment rate never returned to its 1960s levels. Far from being a reason to avoid active government intervention, the JG is needed to insulate the economy from these investment swings, whether they are motivated by political factors or technical profit-oriented factors.

Another factor bearing on the way we might view Kalecki's analysis is the move to increasingly deregulated and globalised systems. Many countries have dismantled their welfare states and enacted harsh labour legislation aimed at controlling trade union bargaining power. Trade union membership has declined substantially in many countries as the traditional manufacturing sector has declined and the service sector has grown. Trade unions have traditionally found it hard to organise or cover the service sector due to its heavy reliance on casual work and gender bias towards women. It is now much

harder for trade unions to impose costs on the employer. Far from being a threat to employers, the JG policy becomes essential for restoring some security in the system for workers.

There have been major reductions in barriers to international trade and global investment over the last 20 years. While globalisation may still not have as large an impact on depressing wages as say the effects of declining union membership, anti-labour legislation (Workplace Relations Act in Australia, Employment Contracts Act in New Zealand), and corporate restructuring, there is still concern about the destruction of jobs in manufacturing and the downward pressure on wages. Richard Du Boff (1997) says,

> As international trade wipes out jobs in manufacturing, the displaced workers seek jobs somewhere in the service sector, exerting downward pressure on the wages of maintenance and custodial workers, taxi drivers, fast food cooks, and others who hold similar positions. Even if the displaced workers can be absorbed easily, their new service jobs will usually pay less than their old jobs, pulling down average low-skill wages. And the effects will not be restricted to low-skilled labor. A worldwide labor supply network is now extending to middle-range skills. India has a large pool of English-speaking engineers and technicians who make roughly the same wages as low-skilled workers in the United States.

Finally, but looking to the future, those who criticise the JG from a Kaleckian viewpoint have to address the issue of binding constraints. Kalecki comes from a traditional Marxian framework where industrial capital and labour face each other in conflict. The goals of capital are antithetical to those of labour. In this environment, the relative bargaining power of the two sides determines the distribution of income and the rate of accumulation. Industrial capital protects its powerful position by balancing the high profits that come from strong growth with the need to keep labour weak through unemployment. However, the swings in bargaining power that have marked this conflict over many years have no natural limits. But the concept of natural capital, ignored by Kalecki and other Marxians, is now becoming the binding constraint on the functionality and longevity of the system. It doesn't really matter what the state of distributional conflict is if the biosystem fails to support the continued levels of production. The research agenda for Marxians has to embrace this additional factor - natural capital. The concept of natural capitalism developed by Paul Hawken (1997) provides a path for full

employment and environmental sustainability within a capitalist system. Hawken (1997) says,

> Decades from now ... Historians will show, perhaps, how politics, the media, economics, and commerce created an industrial regime that wasted our social and natural environment and called it growth.

Hawken (1997) emphasises that the old concepts of industrial capital will have to give way to a new awareness of natural capital.

> Ironically, organizations like Earth First!, Rainforest Action Network, and Greenpeace have now become the real capitalists. By addressing such issues as greenhouse gases, chemical contamination, and the loss of fisheries, wildlife corridors, and primary forests, they are doing more to preserve a viable business future than are all the chambers of commerce put together. While business leaders hotly contest the idea of resource shortages, there are few credible scientists or corporations who argue that we are not losing the living systems that provide us with trillions of dollars of natural capital: our soil, forest cover, aquifers, oceans, grasslands, and rivers. Moreover, these systems are diminishing at a time when the world's population and the demand for services are growing exponentially.

6 Issues not dealt with

Issues that are not dealt with in this paper but which are central to the development of the JG model include:

- Does the JG turn the unemployed poor into working poor? (Mitchell, 1999d)
- Is the JG just a workfare scheme? (Mitchell and Burgess, 1998; Burgess *et al*, 1998).
- Do the JG workers do anything useful? How does the JG model counter the criticisms that the jobs are make-work and a waste of resources? (Mitchell, 1999d).
- Should the JG policy replace all safety net welfare payments for the unemployed? Should people be entitled to welfare support in the event that they refuse to take a buffer stock job?
- Is the JG policy essential to preserve human rights given that the current system deliberately denies a large number of its working-age population employment? (Mitchell and Burgess, 1998b, 1998c).

- What is the future of work? How can we ensure full employment and environmentally sustainable production systems? Will the capitalist system provide enough meaningful work into the future and how can we redesign distribution systems to ensure that people participate in the wealth generation process?
- How can the public sector restore the collective will?

Conclusion

We conclude that unemployment is an entirely social construct engineered by humans. There is nothing natural about it at all. The renowned ex-Dominican priest, Matthew Fox said that humans are the only species not to have full employment. Instead of being primarily concerned with how much employment we can derive from using raw materials and energy sources, the dominant concern of capitalism is in maximizing the monetary return on privately owned capital. It seems that a focus on the latter results in large numbers of human resources being left idle. Paul Hawken (1999) says, "We fire people, perfectly capable people, to wring out one more wave of profits. Some of the restructuring is necessary and overdue. But, as physicists Amory Lovins and Ernst von Weizsšcker have repeatedly advised, what we should do is fire the unproductive kilowatts, barrels of oil, tons of material, and pulp from old-growth forests -- and hire more people to do so." The restructuring has been exacerbated by the abandonment of the goal of full employment by governments since the mid-1970s.[6]

Unemployment arises because the budget deficit is too low. It is always a macroeconomic problem. The Job Guarantee model is the only logical way of providing jobs for everyone with guaranteed price stability. Whether it is accompanied by an income policy is a matter of refinement rather than substance.

Appendix A Phillips curve regressions

Figure 4 suggests three distinct periods in the Phillips curve history since the early 1960s. Much of the earlier Phillips curve estimation ignored the problems associated with non-stationarity in the time series. It is now routine to test for the time series properties of the data before formal estimation is performed. If a series is non-stationary and integrated then using it in regression equations with other integrated series raises the problem of spurious regression (Granger and Newbold, 1974). A standard Phillips curve specification could still be valid in the presence of non-stationarity in the data if the variables formed a cointegrating vector (see Engle and Granger, 1984).

Using a testing method described in Mitchell (1983) it was found that the level of the Consumer Price Index was non-stationary, the rate of inflation was ambiguous but probably non-stationary, the unemployment rate was non-stationary, and the changes in the rate of inflation and the unemployment rate were clearly stationary. It is worth clarifying the result for the unemployment. In the sample used (1971 to 1999), the Augmented Dickey-Fuller tests suggested that the unemployment rate was not stationary. In theory the unemployment rate should be a stationary series because it is bounded from above and thus cannot have an infinite variance. The standard unit root tests, which are used to test for integration, suffer from low power and in small samples find it hard to detect the difference between a highly autoregressive time series and a random walk, especially if the former series has undergone mean shifts over the sample (Mitchell, 1993). The depiction of unemployment in Figure 1 would be consistent with a long memory (persistent) series, which has undergone structural shifts in its mean. However, given the low power of the tests and the ambiguity they sometimes deliver, it is still useful to test if the rate of inflation and the unemployment rate co-vary in a cointegrated manner.

Over the complete sample, 1969(4)-1999(2), using a cointegrating testing equation with the inflation rate regressed against a constant and the unemployment rate; the null of cointegration was unable to be rejected. The regression performed poorly on other diagnostics and the rate of unemployment was statistically insignificant. Using a sample

of 1974(1)-1990(4), cointegration was accepted and the unemployment rate was correctly signed and significant. For the final period of 1991(1) to 1998(4), cointegration was found but the unemployment rate was statistically insignificant.

To reinforce the difficulty in finding a unique NAIRU via regression analysis, Phillips curve relationships were estimated for the full sample and the sub-samples. Table A reports the results of the Phillips curve regressions using OLS estimation. More sophisticated regression methods and functional forms do not provide for an improvement in the estimation results. There is clearly no statistically sound characterisation of a relationship between price inflation and the unemployment rate. The full sample regression (1.1) fails to define statistically significant negative relationship consistent with a Phillips curve and shows signs of serious misspecification. There were substantial residuals around the period of the first oil shock in 1974. The coefficient on the lagged inflation terms (capturing expectations) does include unity in the 95 per cent confidence interval. This means that a specification involving the change in inflation is not indicated. The regression also exhibited instability at this point using a Chow test.

Only Equation (1.3), which estimates the relationship over the second clustering of observations in Figure 4 [1974(1) to 1990(4)], finds a correctly signed and statistically significant coefficient on the unemployment rate. The coefficient on the lagged inflation term is not consistent with Phillips curve theory and the equation fails on the standard misspecification tests. The equation implies a long run trade-off, which does not allow for a unique NAIRU to be computed. Overall, the results clearly do not support a robust statistical relationship that would deliver a consistently accurate and stable measure of the NAIRU.

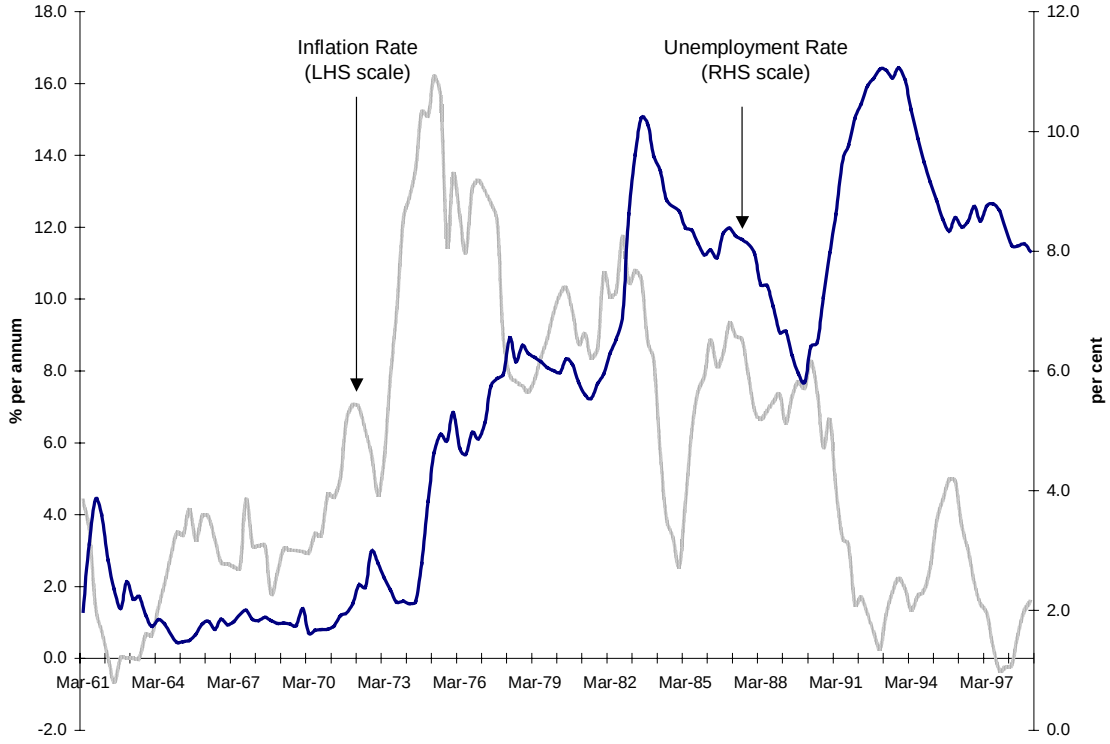
Table A Phillips Curve Regressions for Australia, Level of the Unemployment Rate

Dependent Variable: **DLP**	(1.1)	(1.2)	(1.3)	(1.4)
	60(3)-98(4)	60(3)-73(4)	74(1)-90(4)	91(1)-99(2)
Constant	0.005 (2.54)	0.004 (1.12)	0.054 (5.83)	0.006 (0.34)
DLP(-1)	0.66 (10.71)	0.74 (6.42)	0.004 (0.04)	0.24 (1.72)
LUR	-0.000 (0.021)	-0.001 (0.28)	-0.017 (4.20)	-0.001 (0.15)
R^2	0.43	0.45	0.27	0.10
s.e.	0.008	0.006	0.009	0.005
AR(1-5)	F(5,146)=11.69	F(5,46)=2.23	F(5,60)=4.20	F(5,24)=2.73
ARCH(4)	F(4,143)=7.04	F(4,43)=0.46	F(4,57)=2.26	F(4,21)=0.37
RESET	F(1,150)=8.45	F(1,50)=3.12	F(1,64)=0.28	F(1,28)=10.05

Numbers in parentheses are the absolute t-values.

Following Ormerod (1994b: 45) who claims "the relationship is not in fact between the rate of inflation and the level of unemployment, but between the rate of change of inflation and the rate of change of unemployment." it was difficult to find a well-specified relationship of this type in any sample period. The coefficient on the change in unemployment was usually positive and always statistically insignificant.

Figure 1 Inflation and the Unemployment Rate, Australia, March 1961-December 1998



Source: Australian Treasury NIF Model Database.

Figure 2 Inflation and Unemployment, Australia, 1961-1998

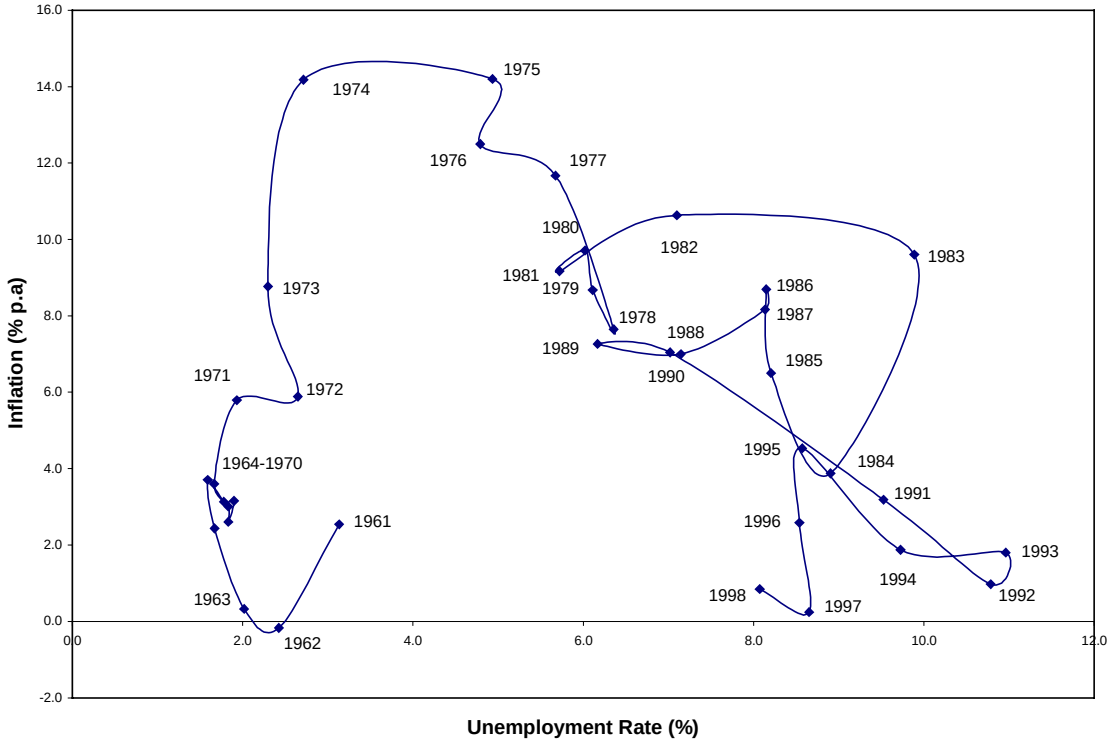


Figure 3 Instability of Inflation and Unemployment, Australia, 1961-1998

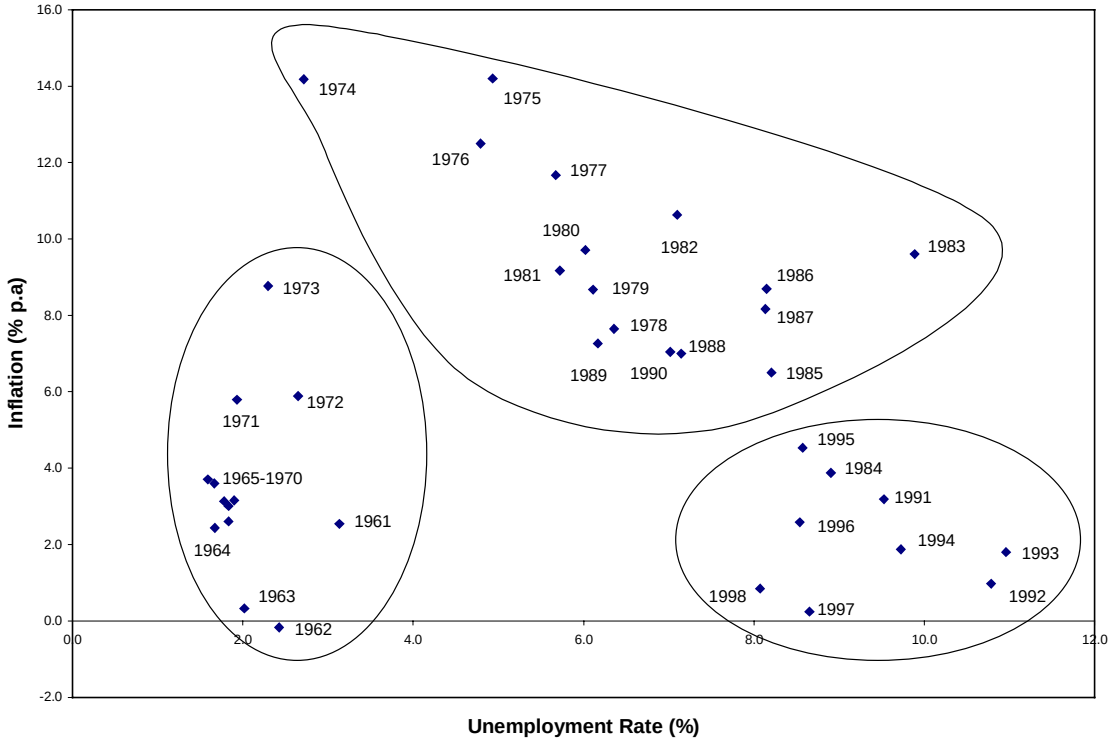
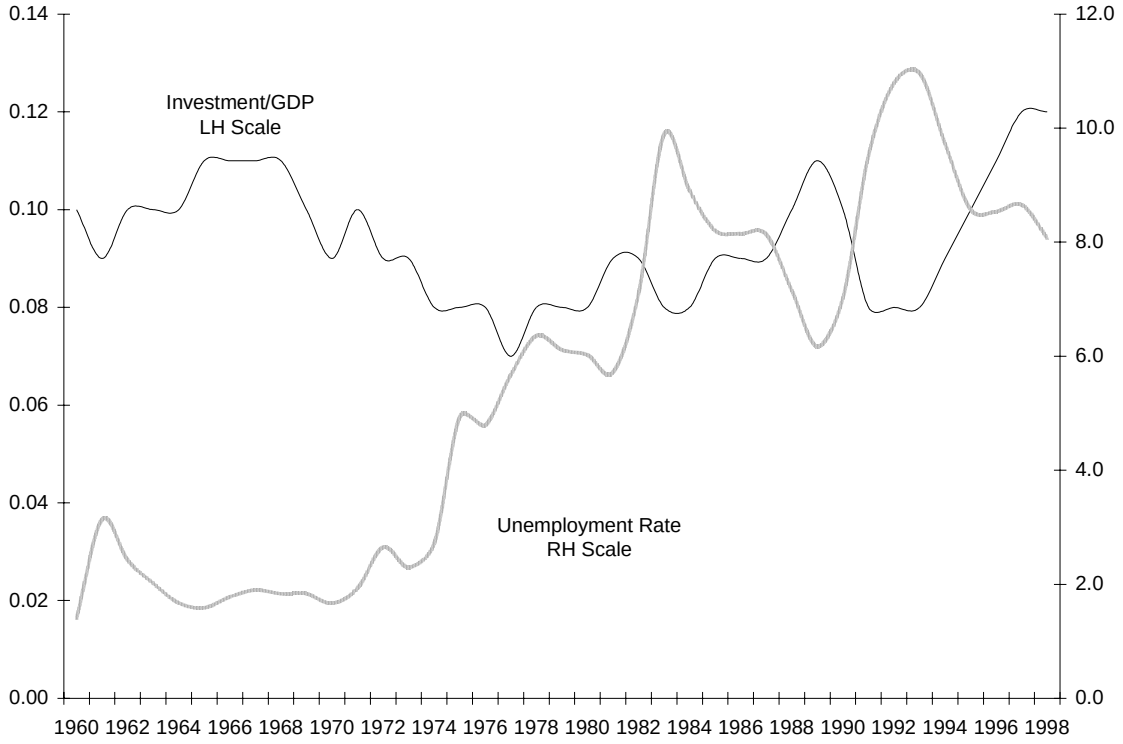


Table 1 Changes in the Inflation Rate and the Unemployment Rate, Australia, 1964-1998

Unemployment Rate	Change in current Inflation Rate		Change in lagged Inflation Rate	
	Rise	Fall	Rise	Fall
< 2 per cent	5	2	5	2
2-3 per cent	4	0	3	1
3-4 per cent	0	0	0	0
4-5 per cent	0	1	0	1
5-6 per cent	0	3	1	2
6-7 per cent	3	1	2	2
7-8 per cent	1	2	1	2
8-9 per cent	3	3	2	4
9-10 per cent	1	2	2	1
10-11 per cent	0	2	1	1
> 11 per cent	1	0	1	0

Source: Australian Treasury NIF Model Database.
Note that the unemployment rate ranges overlap for simplicity of presentation but the upper-range in each category was 0.01 per cent less than shown. The results also do not materially change when computed for quarterly data.

Figure 4 Unemployment Rate and Private Fixed Capital Expenditure/GDP, Australia, 1960-1998



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[1] Inconsistency in the sense that Monetarism is built on a theoretical edifice that claims that markets will deliver full employment.

2 Beveridge had earlier, in 1942, authored the Social Insurance and Allied Service, commonly referred to as the Beveridge Report, which was the basis of the development of the Welfare State.

3 Arthur Altmeyer was one of the most influential persons shaping the course of social security in America. He was part of the President's Committee on Economic Security that drafted the original legislative proposal in 1934. He was a member of the three-person Social Security Board created to run the new program, and he was either Chairman of the Board or Commissioner for Social Security from 1937-1953.

4At the time, I also considered that the scheme could be financed by a levy on existing incomes, which was analogous to the MSF. As a result of other work, I now do not

consider that there is a financing problem (Mitchell, 1996; Mosler, 1997, Wray, 1998; Bell, 1998).

5 Kalecki poses the problem in terms of a “synthetic boom” created by the Government spending and he lists three reasons why the industrial leaders would not support full employment. The first two relate to an apparent dislike of Government involvement in the economy. The third is entirely general and would apply to a very tight labour market being created by strong private sector investment.

6 The philosophical considerations of a system that deliberately denies a large number of its working-age population employment were considered in Mitchell and Burgess (1998b, 1998c). That work covered the ethical aspects of unemployment and argued that in the context of the Universal Declaration of Human Rights (1948), governments in countries like Australia are systematically violating each of the clauses contained in Article 23. The Universal Declaration of Human Rights was unanimously agreed on December 10, 1948. Article 23 of the Universal Declaration of Human Rights states:

(1) Everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment.

(2) Everyone, without discrimination, has the right to equal pay for equal work.

(3) Everyone who works has the right to just and favorable remuneration, ensuring for himself and his family an existence worthy of human dignity and supplemented, if necessary, by other means of social protection.

(4) Everyone has the right to form and to join trade unions for the protection of his interests.