Tolerate Unemployment, but Blame the Unemployed:

The Contradictions of NAIRU Policy-Making in Australia

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Summary

'The natural rate is in many respects an article of faith, always sought but never seen'

– The Economist (2017)

This paper begins by documenting the evidence that 5 per cent unemployment is the government's policy objective, which it believes is consistent with 'full employment'. Indeed, in effectively defining as 'full' something that is less than full, the government attempts to avoid justification by defining away the problem. The government belief relies heavily on a particular stream of economic thinking that is far from unanimous among mainstream economists. That thinking is expressed in concepts such as the 'natural rate of unemployment' or its virtual synonym the 'non-accelerating inflation rate of unemployment', often known by its initials 'NAIRU'. However, there have been fierce debates among economists about the nature and existence of the concept. Most recently, the Reserve Bank of Australia, having made it clear that it believes that the natural rate of unemployment is now well below 5 per cent, is an important critic of government policy. In the rest of the paper, we outline some of the objections to the concept of the natural rate of unemployment, on both theoretical and empirical grounds. In addition, we outline the disastrous effects it can have on people's lives and the state of the economy generally.

Almost since the beginning of the use of the natural rate and its synonyms, doubts have been expressed about the empirical estimates and what they mean. Supporters of the natural rate concept adopted the notion of hysteresis to 'explain' why the natural rate could move over time. However, by invoking hysteresis, natural rate advocates virtually concede that there is no invariant natural rate of unemployment, which makes it a very poor concept for policy purposes. And acknowledging the existence of hysteresis opens the door to recognising that there are long-lasting, substantial costs from unemployment that would be avoided by keeping unemployment low. For example, periods of unemployment can permanently undermine jobless workers' chances at re-employment, even when macroeconomic conditions improve: loss of economic and social attachments, and deterioration in skills and employability, means that unemployment can set in motion a chain of events that permanently undermines their economic and personal success. Apart from providing a powerful reason for reducing unemployment to the lowest level possible, these hysteresis effects also constitute a good case for boosting the rate of Newstart payments. An adequate Newstart is an investment in the well-being and future

employability of unemployed workers, as well as being intrinsically desirable as an anti-poverty measure.

We make the point that using official figures for unemployment is likely to be very misleading. The entire Australian workforce is assumed to be the recorded employed people plus those defined as unemployed. The thinking is that as people gain and lose jobs, they go into and out of the unemployment pool. The unemployment pool is like an industrial reserve army. But we examine a number of different labour market datasets that together give overwhelming evidence that officially recorded unemployment is only the tip of the iceberg, and that reliance on that figure, therefore, is going to vastly underestimate the real level of unemployment. These points would be valid even if the natural rate of unemployment concept were to be upheld. If there were, in fact, a true NAIRU, then it would certainly be well below 5 per cent.

If the reasoning behind the natural rate is wrong, it is useful to consider the alternatives. As it happens, the relationship between unemployment and price and/or wage inflation has long been explained as the outcome of the relative bargaining strengths of capital and labour, or simply as class struggle. The contributions to this line of thinking can be grouped together under the heading 'conflict theories'. To explain how inflation occurs, the relative power of capital and labour needs to be examined. In particular, inflation is the likely outcome when the claims of business and workers exceed 100 per cent of the national product.

At this point, we make explicit some concerns that are usually implicit. Specifically, if the concept of the natural rate is wrong, then government policy stands to severely damage the economy. This is important when so many people, including mainstream economists, cast doubt on the concept. We also make the point that there is a major inconsistency between the 5 per cent policy and the government's attempts to change the incentives/punishments to encourage people out of unemployment.

We then turn to examine in more detail the consequences of the 5 per cent target. It certainly means hardship for those who are victims of the policy. It is wrong to assume that the unemployed are voluntarily out of work while they wait for the best offer. Yet that is the theory behind the natural rate. We must recognise instead that the policy involves real costs on a large number of people at any one time. Moreover, these people are victims of a policy community that uses economic policy as a weapon against labour in the interests of fighting inflation: perhaps a case of the generals fighting the last war. The results are inevitably a lower level of economic activity and worse outcomes for the budget and other economic variables.

Introduction

Australian unemployment increased in the wake of the Global Financial Crisis (GFC) in 2009 and 2010, and then further again following the major downturn in business investment that began in 2013 (associated with the completion of major resource projects). The unemployment rate peaked at 6.4 per cent in October 2014. After that, unemployment gradually declined, returning to near 5 per cent. Given this progress, the government began to demonstrate some complacency about the remaining number of people who were unemployed. However, the unemployment rate has more recently begun to creep up again, now hovering at around 5.3 per cent, or 713,000 people (figures for August 2019, ABS Labour Force, Catalogue 6202.0).

In fact, until very recently the federal government and the Reserve Bank have ascribed to a target unemployment rate of 5 per cent, in a belief that anything lower than that would set off endlessly accelerating wage and price inflation. Below, we document that there was indeed an official unemployment target of 5 per cent. The fact that wage growth slowed to postwar lows at the same time as the unemployment rate approached that 5 per cent 'barrier' – and that CPI inflation consistently fell below the RBA's inflation target throughout that period – clearly contradicted the traditional fear that falling unemployment would spark dangerous inflation.

More recently, the Reserve Bank of Australia (RBA) has split with the government and now believes that the official target should be 4.5 per cent unemployment. Being able to reduce the unemployment rate an additional half-percentage-point allows for a reduction in unemployment of around 70,000 people, and perhaps about $10 billion in additional production.[1] In essence, the government and RBA 'targets' are different versions of what is often called the 'natural rate of unemployment.' In official documentation, it is also known as the 'non-accelerating inflation rate of unemployment' ('NAIRU', for short). The two concepts are largely synonymous; still other common terms for the concept include the 'equilibrium' rate of unemployment or the 'full employment rate of unemployment'. Indeed, sometimes, senior officials just refer to the NAIRU as 'full employment.' The emerging split between the government and the RBA results from the contrast between the government's complacency about unemployment (and its reluctance to undertake additional stimulatory policies), and the RBA's frustration that the government is not doing more to address increasing unemployment.

[1] This assumes the marginal increase in production per worker would broadly equal the average product per worker in Australia.

The NAIRU is defined as that rate of unemployment at which inflation has no tendency to increase or to decline. According to the theory, if unemployment is lower than the NAIRU, then inflation will accelerate continuously (until unemployment is increased), while if unemployment is greater than the NAIRU, inflation will decelerate. As we will see below, the NAIRU is taken to reflect some sort of real equilibrium in the labour market, and hence it is regarded as an optimal rate of unemployment—suggesting in some sense that it is 'better' than any other rate of unemployment. However, as we will see, how or whether the NAIRU is indeed superior is not spelled out. Moreover, there are serious problems in using the NAIRU as a policy target, not least being its unobservability.

It is important to note that the NAIRU literature rests on some fundamental and controversial views about the nature of the Australian economy. It is assumed, largely without comment, that inflation impulses arise only from the labour market. It is also assumed that the product market is very competitive, so that rates of return are maintained through competition at levels that do not change with the state of the economy. Hence by omission we are deterred from examining price-setting in the corporate sector as a source of inflation. Instead, whenever there is inflation, it is assumed to reflect an excess demand for labour, which causes wages to increase, and which employers then pass on through higher prices. In this view, capital is merely a passive actor. However, it is sometimes very clear that prices, not wages, initiate wage-price spirals. For example, opportunistic price setting that kicked off inflationary spirals was especially evident in the early 1970s, beginning with commodities but soon spreading into manufacturing and other sectors.

The NAIRU approach to inflation, focused on workers and the labour market as the ultimate source of the problem, is reinforced in Australia by the disproportionate role of business representatives on the board of directors of the RBA. As a result, the RBA rarely considers anything outside the labour market as the cause of inflation.[2] A notable exception was the commodity price increases associated with the resources boom (Denniss and Richardson 2011), yet even the resources boom was considered mainly through its impact on the labour supply/demand balance.

The *Economist*'s 'issues brief' on the natural rate of unemployment begins with the following statement:

> Why does unemployment exist? If there is a central question in macroeconomics, this is it. There are few bigger wastes than the loss to idleness of hours, days and years by people who would rather be

[2] There may be other factors, such as construction booms, which produce the excess demand for labour.

> working. Unemployment can ruin lives, sink budgets and topple governments. Yet policymakers do not wage all-out war on joblessness. Most, like the Federal Reserve, America's central bank, target what is known as unemployment's 'natural' rate, at which inflation is stable. (*Economist* 2017)

To appreciate the importance of the issue in Australia, note that the lost production associated with 5 per cent unemployment is of the order of $95 billion per year.[3] The rest of the *Economist* article quoted above tries to explain the concept of the natural rate, and its weaknesses. The *Economist* mentions that even for supporters, volatility in estimates of the natural rate limits its usefulness for policy. Moreover, it points out that 'recent experience has led some to doubt the very existence of the natural rate of unemployment'. Stiglitz (1997), who is sympathetic to the concept, nevertheless concedes that half the mainstream economics profession is hostile to the concept.[4]

Just as the rest of the world is becoming more suspicious of the very idea of a natural rate of unemployment, it remains official policy in Australia and has become an influential tool in economic modelling and policy-making. However, that official policy is theoretically unfounded, empirically ambivalent, and practically dangerous. The aim of the present paper is to increase awareness of the many weaknesses of notions of the natural rate of unemployment, and to forestall its future use in Australian policy making.

[3] This assumes that a hypothetical zero unemployment would be associated with a 5 per cent increase in Gross Domestic Product (GDP). That figure would be higher if we took into account the waste associated with underemployment and hidden unemployment, as we discuss below.

[4] Stiglitz (1997) says many economists are hostile to the NAIRU specifically (not the natural rate), but as we have seen the two concepts are synonymous.

Five per cent Unemployment Redefined as Full Employment

The government has made it clear that its preference is for an unemployment rate of 5 per cent, which it regards as a sort of equilibrium or normality. The Department of the Treasury is responsible for advising the government on fiscal policy, and its views have been set out in a number of places. For example, the *2015 Intergenerational Report* explained Treasury's use of the NAIRU, stating:

Projections in this report use an assumption of a constant rate of unemployment of around 5 per cent over the projection period.

While employment growth depends on the dynamics of the labour force and the wider economy, the assumption of 5 per cent unemployment is based on estimates of the NAIRU. The government believes the NAIRU is the lowest sustained unemployment rate that does not cause inflation to increase (Australian Government 2015, p. 22). In the budget papers, Treasury also explicitly assumes a NAIRU of 5 per cent, which is used to determine potential output (Australian Government 2018). Below that, we get a cyclical upturn in the budget balance; above it, we get a cyclical downturn in the balance. But the 5 per cent unemployment is not a real barrier. It is just that Treasury thinks that below 5 per cent unemployment, the economy will overheat. This belief is based on the idea that the economy is like a pendulum that swings back and forth around its central or equilibrium point—in this case, 5 per cent unemployment. Thus 'potential' is imbued with some sense of 'normal' or 'natural.' Indeed, the NAIRU is often referred to as the 'natural rate of unemployment'. This is the term that Friedman (1968) originally used, as we will discuss below.

What we have cited above is just a sample of the official documents, which should enable some understanding of the thinking behind economic policy: in particular, the idea that once we hit 5 per cent, then macro-economic policy—both monetary and fiscal—has done its job, in so far as demand management is concerned. Again, the concept of the 5 per cent was clear in the 2018 Budget Papers, where it was stated that 'the unemployment rate is projected to converge back to 5 per cent over the medium term consistent with Treasury's estimate of the non-accelerating inflation rate of unemployment (NAIRU)' (Australian Government 2018, pp. 2–30).

Almost the same words were used in the 2019 budget. Moreover, the government has taken every opportunity to brag about its employment creation record. In his budget

speech, Treasurer Josh Frydenberg said, ‘Unemployment is lower … There are fewer people on welfare … There are a record number of Australians with a job’ (Frydenberg 2019 p. 14).

With these considerations in mind, this paper addresses the concept of the natural rate of unemployment, including whether it even exists, as well as the policy implications of targeting the natural rate. This is certainly not a settled field, as the concept of the natural rate remains controversial. We point out some of the implications of the natural rate concept, and then briefly describe alternative concepts of inflation and unemployment. In addition, we point to alternative economic strategies that reject the NAIRU as a central policy target. However, while it is clear that there are indeed alternative perspectives, it is beyond the scope of this paper to elaborate those alternatives more fully.

For a while, the 5.0 per cent Treasury estimate of the NAIRU was supported by the RBA. When unemployment was at 5.5 per cent, the RBA clearly thought that it was getting close to the NAIRU. The RBA Governor, Dr Philip Lowe, said in a speech in July 2017:

> If we look at just the past few months, there has been a welcome pick-up in employment growth right across the country, after a period of softness. The forward-looking indicators suggest that employment growth will continue. Job ads, job vacancies and hiring intentions have all lifted. Businesses are also reporting better conditions than they have for some years. This is good news, particularly given that the unemployment rate is still around ½ a percentage point above estimates of full employment in Australia. (Lowe 2017)

Subsequently, on 13 June 2018, he said:

> While we can't be definitive about what constitutes full employment, most conventional estimates for Australia are that it means an unemployment rate of around 5 per cent. It is possible, though, that we could do better than this, especially if we approach the 5 per cent mark at a steady pace, rather than too quickly. Indeed, in a number of other countries, estimates of the unemployment rate associated with full employment are being revised lower as wage increases remain subdued at low rates of unemployment. We have an open mind as to whether this might turn out to be the case here in Australia too. Time will tell. (Lowe 2018)

On 22 February 2019, Lowe told the House of Representatives Economics Committee that 'our central scenario for 2019 is for growth of around 3 per cent, inflation of around 2 per cent and unemployment of around 5 per cent … [T]his is not a bad set of numbers' (Lowe 2019a). He did not use the term 'natural rate' or its synonyms in this speech, but he certainly implied it.

The views of the Governor of the RBA are particularly important. Governments have two main macro-economic tools: monetary and fiscal policy. Monetary policy is devolved to the RBA which, under its founding legislation, is obliged to target 'full employment, low inflation and a stable currency', hence the importance of its views regarding the meaning and measurement of full employment.

The RBA's modelling of its own behaviour further confirms that it explicitly targets the NAIRU. For example, in outlining its recent macroeconomic modelling, RBA officials included a version of the Taylor rule to describe the Bank's own behaviour:[5]

> [P]olicy responds to deviations of … inflation from target and the unemployment gap … [T]he cash rate must eventually respond endogenously to bring inflation back to the midpoint of the target band and the unemployment rate to the NAIRU. (Cusbert & Kendall 2018)

Some suggest the RBA is only targeting inflation, and deviations from the NAIRU are used only as an indicator of likely inflation pressures. Even so, the practical implications are the same: if the RBA believes inflation will accelerate without end if unemployment falls below the NAIRU, then in targeting stable inflation it will also target the NAIRU.

Moreover, government thinking and the theories lying behind it are based on the idea of the economy as a naturally self-correcting system that, when disturbed from its equilibrium or resting place, will tend to quickly return to the original equilibrium position. In this sense, there is an inherent hostility to government intervention in the economy which might have the aim of producing a better outcome (see, for example, Makin 2016).

Official sources concentrate on the concept of the NAIRU, but, as we have pointed out earlier, the official quotations show that the NAIRU is broadly synonymous with the concept of the 'natural rate of unemployment'. To use one's authority to refer to something as 'natural' and imply that it cannot be changed seems the height of

[5] The Taylor rule (based on Taylor 1993) sought to test the empirical hypothesis that central banks' monetary policy can be understood as increasing (decreasing) interest rates when inflation is above (below) target, and reducing interest rates when unemployment is above (below) target.

arrogance. This arrogance began with Friedman (1968) in particular;[6] we might prefer to think that the Australian usage has been unwitting, but its assumptions and implications are similar.

Corresponding to the acceptance of the natural rate of unemployment is a redefinition of full employment. The NAIRU is sometimes referred to paradoxically as the 'full employment rate of unemployment.' In less careful language, when 95 per cent of the labour force is employed (using official definitions), some people refer to that as 'full employment.' In the quote above, Lowe (2018) makes it clear that 5 per cent is regarded simply as 'full employment'. He repeated this view in August 2019, when he told the House Economics Committee that the RBA was forecasting that 'the unemployment rate will remain above the level we estimate to be consistent with full employment' (Lowe 2019b). The NAIRU was by then being estimated by the RBA as 4.5 per cent. When it was put to him that the RBA treated 4.5 per cent unemployment as full employment, he confirmed it, saying, 'That would be my current best guess' (Lowe 2019b p. 184, my emphasis).

The use of the natural rate argument by many economists is summed up by Dobrescu, Paicu and Jacob (2011), who say:

> The central message of this line of reasoning is pragmatic in nature and has an immediate *practical* corollary: monetary authorities will never be able to influence unemployment over the medium and long term, because the unemployment rate tends towards a so-called natural level (p 184 my emphasis).

Joan Robinson (1976) referred to the attraction to business of

> …the cynical doctrine that the private enterprise economy needs unemployment to preserve the value of money. The spokesmen of capitalism were saying: Sorry, chaps, we made a mistake. We are not offering full employment, but the natural level of unemployment (p. 122).

[6] Friedman's use can be traced to his Presidential Address to the American Economic Association, later reprinted as Friedman (1968). That address was a polemic designed to persuade the economics profession to resist using activist economic management to achieve lower unemployment. In particular, he wanted to attack the Phillips curve, which purported to show a stable relationship between inflation and unemployment. The implication was that policy makers could trade off some additional inflation for a lower unemployment rate. However, Friedman insisted there was no trade-off.

In many hands, therefore, the natural rate of unemployment becomes a rationale for government to keep out of economic management and to not interfere with market processes. In this school of thought, unemployment is certainly not caused by Keynesian demand–deficiency problems. These are ruled out by assumption.[7] By contrast, our view is that the use of phrases like 'natural rate of unemployment' or 'full employment' is a linguistic trick designed to deflect attention from the severe social and economic disadvantage suffered by many Australians. Even if there were a reason to believe that unemployment could not be further reduced, it would still be a callous sleight of hand to call that 'full employment'.

Even if the NAIRU is somehow an equilibrium, its use for policy purposes is an altogether different matter. If the NAIRU is policy, the government must believe that any benefits of getting unemployment below 5 per cent are outweighed by the costs of unemployment below 5 per cent. But the costs of unemployment are very large, and therefore the benefits of any reduction in unemployment are huge, especially to the people concerned, but also to the broader economy.

Those who believe in the NAIRU no doubt consider that other costs, such as the cost of higher inflation and a more assertive workforce, offset the benefits of lower unemployment. But we find it hard to imagine that there is any economic goal more important than reducing unemployment, and so it is hard to imagine that there are larger costs from holding the economy below the estimated natural rate. If those costs have been overestimated, then the cruelty of the present target has been unnecessary. We go into more detail below, but it is worth noting for the moment that, for two months in 2008 (February and August), unemployment went down to 4.0 per cent (seasonally adjusted), well below what was then deemed to be the NAIRU. Inflation did not suddenly accelerate, and there appeared to be no other obvious costs associated with unemployment below the 5 per cent target on that occasion.

It goes without saying that no-one in government—whether politicians or officials—seems to be on the record outlining the costs or benefits associated with the economy being under the natural rate, and in particular the 5 per cent target. Rather, it is taken for granted that those costs must be huge, and therefore policy cannot even contemplate reducing unemployment below the NAIRU.

There is another aspect of the 5 per cent policy that is difficult to fathom. On the one hand, the government knows that its own policy actually targets permanent 5 per cent unemployment. However, on the other hand, it blames the unemployed themselves

[7] Indeed, in most of the thinking and arguments by advocates of the natural rate concept, unemployment is essentially a voluntary activity that people engage in until they find acceptable employment. This description of unemployment fits in with Tony Abbott's notion of 'job snobs'.

for their plight—and then designs policies using sticks and, to a lesser extent, carrots to encourage and coerce people out of unemployment and into work.

BLAMING THE VICTIM IS INCONSISTENT WITH THE NAIRU TARGET

The government's labour market policy is thus in a logical contradiction. Another way of putting the problem is that the government's macro-economic policy is inconsistent with its micro-economic policy, in so far as it applies to the labour market. On the one hand, it targets the NAIRU, which ensures that unemployment will not go much below 5 per cent. On the other hand, it consistently spruiks its labour market policies as designed to get the unemployed back to work. This is implied by its trite slogan 'The best form of welfare is a job'.

In Parliament recently, following a question on the adequacy of the Newstart Allowance, the Prime Minister, Scott Morrison, said:

> [T]he most important support that is provided by this government is to ensure that people can get off welfare and into work … The best form of welfare is a job … Our government will not rest until we get all of them into jobs, because that's the pledge we made at the last election: 1¼ million new jobs over the next five years. (Morrison 2019)

This suggests he wants to assure us that all of the unemployed will get a job. And that becomes his excuse for ignoring the plight of people trying to live on the inadequate Newstart Allowance. If the government is going to get you a job soon, then why do you need a higher allowance? Indeed, on that issue, Prime Minister Morrison also accused the Opposition of showing 'unfunded empathy' (2019).Of course if unemployed people did begin to find jobs in large numbers and the rate of unemployment was to fall, then the logic of NAIRU policy would require government interventions (via monetary and even fiscal policy) to slow the economy and restore 5 per cent unemployment. So the government is adopting irreconcilable positions in pursuing a NAIRU, yet still blaming the unemployed for their own plight.

The government's other tactic is to blame the victim. The Minister for Employment poured fuel on the fire when she released data which were then reported under the headline, 'Welfare crackdown: Majority of job-seekers lose pay over missed meetings' (AAP 2019). This article went on to say: 'New figures released by Employment Minister Michaelia Cash show nearly four in five of the 744,884 Jobactive participants had payments suspended at least once in the 12 months to the end of June'. Channel 7's

Sunrise TV program was forced to apologise after it took the bait and referred to 'dole bludgers' (NewDaily 2019).

In 1999, when Tony Abbott was Minister for Employment, Workplace Relations and Small Business in the Howard Government, he referred to the unemployed (or to a good many of them) as 'job snobs' (Castles 2014). Later on, he elaborated this concept, saying:

> [P]eople in regional areas would rather be unemployed than work in jobs such as fruit picking and cleaning. This idea that you can be unemployed on benefits in a town where you can't get fruit pickers... [I]t's just wrong. (Quoted in Peatling 2016)

Abbott might have added that the unemployed have other options such as busking or windshield washing. Later, when he became prime minister, his first budget proposed some particularly cruel measures for the unemployed (Australian Government 2014). For example, one of the Abbott Government's measures was to deny the unemployed Newstart Allowance for months to discourage unemployment. Fortunately, the worst features of the 2014 budget never made it through the Senate. The next section of this report considers the issue of Newstart benefits further.

In sum, the effect of aiming for a 5 per cent unemployment rate means that the government is deliberately using macro-economic management to keep the Australian economy below its potential. The unemployed are clearly the main victims. By targeting a minimum unemployment rate, the government is essentially trying to keep the numbers of unemployed constant as a proportion of the workforce. This means that as people are assisted into work, they must necessarily displace other people, at least in aggregate. That is important, given that the government undertakes programs designed to assist some workers. At best, such programs merely rotate a subgroup of the workforce in and out of unemployment. Given that the official unemployment rate is much lower than the real level of underutilisation (as shown above), we can assume that a 5 per cent NAIRU target actually results in a much larger share of people suffering actual unemployment interspersed with temporary bouts of employment.[8]

Despite Prime Minister Morrison trying to suggest that he can find jobs for all the unemployed, the NAIRU target dooms large numbers of people to unemployment—no matter what carrots and sticks the government may use to encourage or browbeat them into a job. The government's various labour market programs at best churn people in and out of precarious employment, without altering the government's contradictory macro-economic policy stance.

[8] See Independent Inquiry into Insecure Work (2012) for more about insecure work.

Nothing here should be taken as suggesting that labour market programs themselves are a waste. Even in a buyers' market, with more workers than jobs, the prospects of unemployed people can improve through targeted training and other programs. It is also important that governments develop people's skills so that their experience in the labour market will be better, irrespective of the state of the labour market.

DOUBTS ABOUT THE ACTUAL NUMBER

Some analysts in Australia who accept the concept of the NAIRU or natural rate nevertheless think the actual rate is less than 5 per cent. For example, Capital Economics said it is more likely to be 4 per cent (Turner & Poljak 2018), while Westpac says it is less than 5 per cent (Turner & Poljak 2018). Apparently, too, the Deputy Reserve Bank Governor, Guy Debelle, said that he was open minded about the 'level of full employment … having witnessed the experience of other advanced economies which have been able to achieve much lower levels of unemployment' (quoted in Turner & Poljak 2018).

The concept of the NAIRU also underpins official wage growth estimates in Australia (such as those prepared by the RBA, and those contained annually in the Commonwealth government's budget documents). The assumption is that wages will accelerate once the NAIRU is reached, but that assumption has been proven wrong consistently. The RBA has conceded that its own and other official forecasts have consistently overestimated wages growth since 2011 (Stanford, Hardy & Stewart 2018). That raises the question of what to do when predictions based on theory do not match the real world. Rather than revise the theory of the NAIRU, RBA Governor Lowe virtually admonished workers for not being more aggressive in their wage bargaining (see Hutchens 2017)—in other words, criticising them for not behaving as the RBA models said they should! Should you admonish the model for not behaving like the real world, or the real world for not behaving like the model?

Two Australian researchers writing in 1996 reported that estimates of the NAIRU vary enormously: ranging from as low as 2.3 per cent to as high as 9.5 per cent in Australia over the period studied (Crosby & Olekalns 1997). A Treasury estimate from 1996 put the estimate at 8.3 per cent (Downes & Stacey 1996). In 2006, Treasury put the NAIRU at 'around 7.0 per cent, although this estimate lacks precision, as in statistical terms there is a 95 per cent chance that the true NAIRU lies in the range [of] 5.4 to 8.6 per cent' (Johnson & Downes 2006). Other researchers (Song & Freebairn 2004) cite still other estimates of the NAIRU for Australia: 6.3 per cent at the beginning of 1980, 8.0 per cent in early 1990, and 7.9 per cent at the end of 1998. There have always been

different estimates of the NAIRU—and even estimates that follow similar methodologies are not stable over time.

THE SPLIT IN THE OFFICIAL FAMILY

Over the course of 2019, the RBA made it clear that it believed the NAIRU was below 5 per cent, and more like 4.5 per cent. There had been earlier hints that the NAIRU might be revised downwards. For example, in October 2017 Deputy Governor Guy Debelle noted that the NAIRU estimates overseas were being continuously revised downwards without adverse consequences, as countries experienced unemployment well below previous NAIRU estimates. He said:

> [Downward revisions of the NAIRU have] been an issue (to some extent a pleasant issue) for a number of central banks. The unemployment rate has approached and gone below previous estimates of the NAIRU in the US, Germany and Japan, yet wage and price inflation has remained subdued. As a consequence, estimates of the NAIRU in those countries have continued to be revised lower.

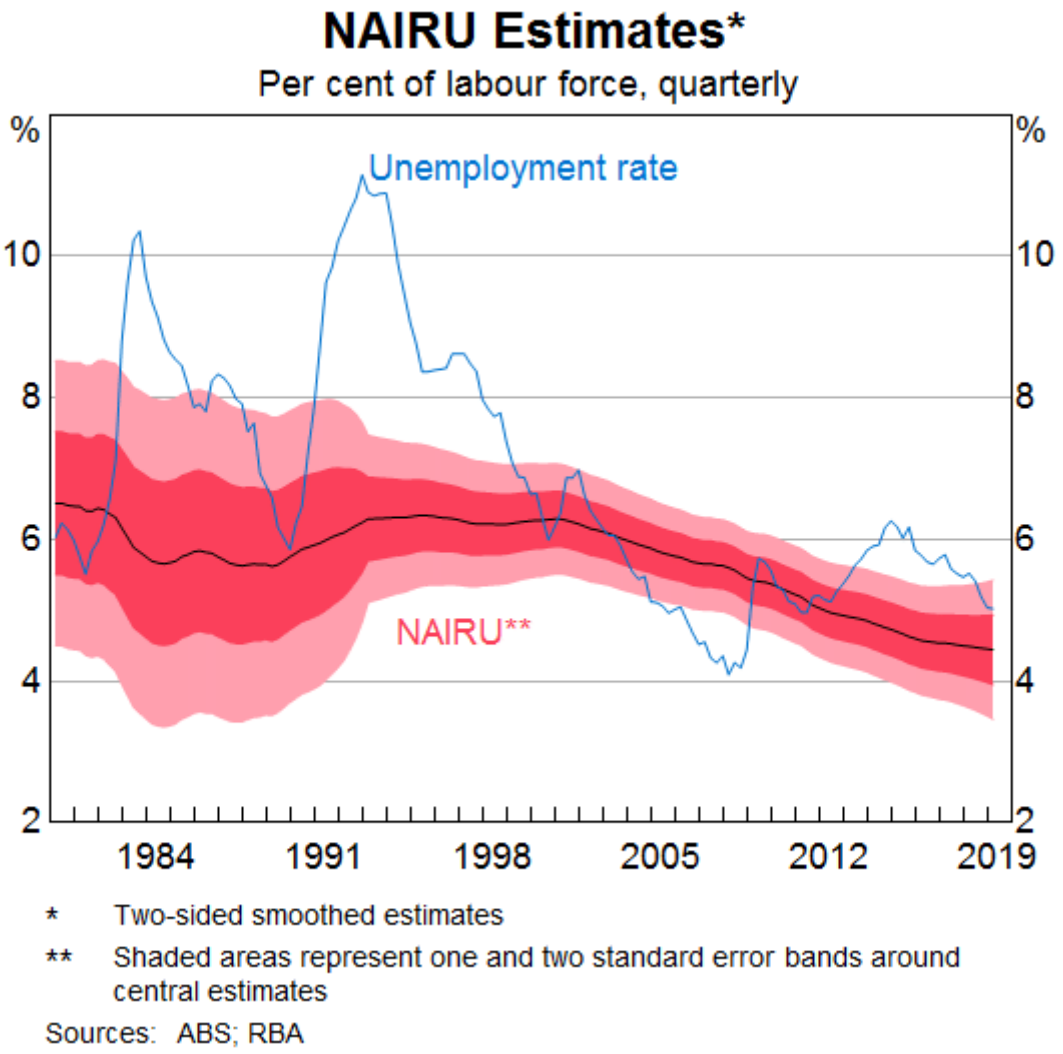
Here in Australia, our assessment is that there still remains a sizeable degree of spare capacity in the labour market. Our forecast is that spare capacity will be gradually reduced in the period ahead. But, as it is reduced, we will be alert to the possibility that these developments we see in other labour markets, in terms of subdued inflation in the face of minimal spare capacity, occur here too. (Debelle 2017)

Perhaps Debelle's remarks were too oblique to be widely reported at the time, but reading them now it seems clear that Australia was being prepared for further downward revisions in the NAIRU estimates. In February 2019, the RBA Governor, Philip Lowe, met the House of Representatives Economics Committee to give the regular biannual report on monetary policy. In response to a question on the NAIRU and whether he thought it was still 5 per cent, Lowe said:

Normally there's quite a large ball of uncertainty … And the central point of that ball of uncertainty we used to think was around five; I now think it's lower than that. But the ball of uncertainty is quite large. It sits solidly in the fours. I think this country can have an unemployment rate close to 4½ per cent without wage growth causing problems for inflation. (Lowe 2019a)

In addition, Lowe's report included a graph, reproduced in Figure 1, which clearly showed a strong downward trend in recent estimates of the NAIRU.

Figure 1: RBA estimates of NAIRU.



Lowe's earlier remarks did not seem to have been widely reported. However, in June 2019, Assistant Governor Luci Ellis said, 'A year or so ago, we were saying that we thought the NAIRU was around 5 per cent. The point estimate at the time was rounding to 5 per cent'. She went on to say that new data and analysis had led the RBA to revise the figure down. She presented a graph showing the current estimate for 2019 at 4.4 per cent, which, rounded, gives 4.5 per cent. Ellis (2019) said: 'We have therefore gradually revised down the estimate of the prevailing NAIRU from 5¼ per cent a few years ago to 4½ per cent now'.

In something of an exaggeration, the *Financial Review* headline for an opinion piece read: 'The RBA just backflipped on the job market' (Holden 2019). Nevertheless, this was the occasion when the media noticed, and began to report on the new and lower official estimate of 4.5 per cent.

HYSTERESIS

'Hysteresis' refers to a process whereby the very nature of an equilibrium is changed when the system departs from that equilibrium: there will be a new equilibrium created as a result of the change. We saw that currently the natural rate of unemployment is taken to be around 5 per cent. Clearly, that natural rate (if the concept is accepted) must have drifted up substantially since the 1950s and 1960s, when the actual rates of unemployment averaged barely over 1 per cent, and remained fairly stable for decades.

The American economist Edmund Phelps (1972) was the first economist to ascribe the movement in the natural rate to hysteresis. With the hysteresis effect, a temporary increase in unemployment may have permanent effects. Hence, if unemployment increases to a higher level for a significant period of time, then it is less likely to return to the initial, lower levels. To explain this effect, economists have pointed to such things as the atrophy of skills, work ethic, work habits, motivation, social connections, confidence and other consequences of longer-term unemployment; these all inhibit employment success the longer unemployed people remain out of the workforce. All of these problems are exacerbated by the inadequate level of Newstart payments in Australia. Evidence presented by The Australia Institute to the Senate Committee examining the adequacy of Newstart showed that an unemployed family of four receives 20 per cent less than the poverty line (Richardson 2019). Meanwhile a single person on Newstart was $182.17 a week (more than one-third) below the poverty line of $529.57 (Richardson 2019). Other evidence to that Committee confirmed that Newstart is not sufficient to maintain a person as attractive to employers (ACOSS 2019).

An especially important dimension of this problem is the effect of unemployment on young people. Young people tend to experience higher unemployment for many reasons. However, a cohort of young people who arrive in the labour market when it is in recession may be permanently affected by the difficulties they face in such a labour market.

Strong evidence supports the existence of hysteresis effects in Australia. Those effects can be thought of as increasing or reducing the structural level of unemployment in Australia. The International Monetary Fund (IMF) recently studied the analogous situation in the US and found that long-term unemployment in the US reduces the probability that an individual will find a job, so that the individual's experience of long-

term unemployment tends to increase the level of structural unemployment.[9] The IMF (2012) recommended that forceful measures should be introduced to reduce long-term unemployment and address the risks associated with long spells of unemployment—namely, skills erosion and a weaker attachment to the labour force. (It should be pointed out that by 'forceful' the IMF did not mean using force on the unemployed, through workfare-like punishments, but rather 'policies to increase demand for the long-term unemployed in the short run' (IMF 2012 p. 51)—in other words, active labour market programs to get people back into work.

Hysteresis represents an important qualification if not a critique of the NAIRU. It seems that if we started the post-war era with unemployment at less than 1 per cent but now have a much higher 'natural' rate, we should be able to get back to the lower rates by reversing those increases in structural unemployment: through labour market and education/training programs on the one hand, and better income maintenance on the other hand. Higher aggregate demand would also be a critical factor. Accepting hysteresis-induced increases in structural unemployment as an inevitable, indeed 'natural' outcome, seems a particularly perverse conclusion of NAIRU thinking—and should be repudiated in the strongeerst of terms.

Whether or not we accept the natural rate of unemployment, the mechanisms attributed to hysteresis may still be at work and would have important consequences. As Dobrescu, Paicu and Jacob (2011) suggest, 'high persistent unemployment might have surprisingly deep consequences, because it leads to an increase in the NAIRU, whereas low unemployment has a beneficial effect, in that it leads to a reduction in the NAIRU' (p. 192). This effectively refutes the Friedman idea, or the common interpretation of Friedman, that nothing can be done to influence the natural rate of unemployment. Holding the rate below the natural rate lowers the natural rate itself and so refutes Friedman's argument against policy activism. It also casts doubt on the meaning, and even the existence, of this 'natural' rate in the first place.

In short, hysteresis raises the question of whether we should even maintain a concept of a NAIRU that shifts with the state of the economy. The theory of hysteresis has been tacked onto the NAIRU to try and keep the latter concept alive. However, it could be regarded alternatively as indicating the failure of the NAIRU—a failure that throws serious doubt about any policy based on a supposedly optimal and invariant rate of unemployment.

[9] Structural unemployment refers to unemployment by certain categories of workers whose skills may be unwanted, whose location puts them at a disadvantage, or who otherwise remain unemployed due to so-called structural factors, and whose plight is unlikely to be addressed by macro-economic settings.

Australia's Experience Defies the NAIRU Model

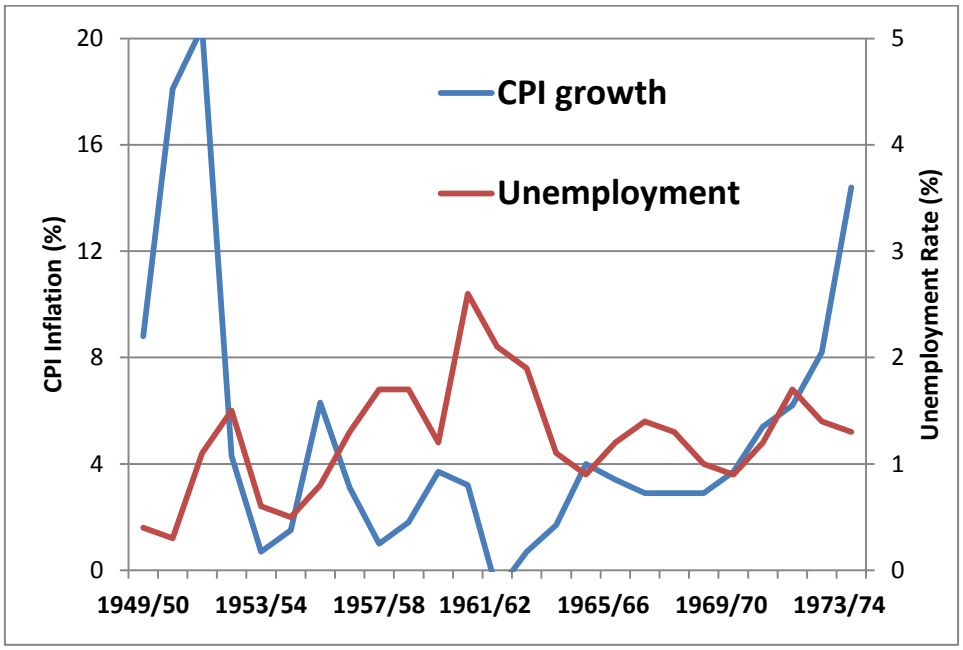
In this section, we examine historical Australian labour market statistics to gather context for the appropriateness of a 5 per cent unemployment policy.

Given our discussion up to this point, it is critical to question the extent to which 5 per cent unemployment is indeed 'natural' in any sense. Australia had a long experience of unemployment below 2 per cent, from the late 1940s through to the early 1970s. Commonwealth Employment Service (CES) figures show that between 1950 and 1970 inclusive, unemployment averaged 1.2 per cent, ranging from 0.3 per cent in 1951 to 2.6 per cent following the Menzies government's credit squeeze in 1961 (RBA 1998). Barely a decade later, unemployment hit 10.5 per cent in July 1983. Any attempt to explain such a dramatic shift in the Australian labour market using the natural rate of unemployment would certainly fail. And the idea that there has somehow been a constant natural rate of unemployment would not pass what Ross Garnaut has famously called the 'laugh test'.

Compared to later periods, inflation was barely a problem in Australia until the oil and other commodity price shocks of the early to mid-1970s. Figure 2 shows Australian inflation and unemployment over the period 1949–50 to 1973–74. Unemployment figures are financial year averages as reported by the CES. The left-hand vertical axis in Table 1 measures the inflation rate as a percentage change, while the right-hand vertical axis measures unemployment as a percentage of the workforce.

Figure 2 confirms that unemployment was generally very low over the period in question. Its peak at 2.6 per cent was associated with the 1961 credit squeeze; otherwise, it remained below 2 per cent. Despite being a fraction of even early Australian estimates of the NAIRU, inflation remained relatively low, with the exception of the temporary inflation associated with the Korean War and the period beginning in 1969–70 (with the first OPEC shock). Apart from that, there was no apparent trend in inflation, which averaged 2.6 per cent from 1952–53 through 1969–70. Indeed, looking back to that time, it is clear that unemployment could fall to very low levels without sparking inflation (Beggs 2018). This contrasts with the NAIRU logic discussed above, which suggests that inflation should have accelerated continuously over that 17-year period.

Figure 2: Inflation and unemployment, 1949–50 to 1973–74 (%).



Source: RBA (1998).

On the eve of the GFC, Australia had unemployment well below 5 per cent for a couple of years, with few apparent problems. Unemployment has regularly fallen below 3 per cent in Western Australia (WA) and the Australian Capital Territory (ACT), as well as in areas such as the eastern suburbs of Sydney. So there is considerable evidence in Australian experience that the unemployment rate can fall well below 5 per cent, without sparking the continuous acceleration in inflation that NAIRU believers so fear.

5 PER CENT JUST THE TIP OF THE ICEBERG

The official (seasonally adjusted) unemployment rate presently stands at slightly above 5 per cent (ABS 2018a). However, other labour market data show that these official figures hide the real extent of unemployment and underutilisation in Australia. Even for non-employed Australians who genuinely want to work, many are nevertheless not recorded as unemployed by the ABS. They cannot have worked even a single hour in the reference week. They must have been 'actively looking for work' in the previous month—and that requires submitting regular active applications, not just watching want ads or internet job sites. Finally, even if they have been actively looking, they must also be available to start work almost immediately—within the same week during which they were surveyed.

This strict definition thus excludes many women with caring responsibilities who want to work, but who would need to find alternative care arrangements in order to do so;

this may prevent their immediate return to work. It also excludes workers who have given up actively looking for work (or never started), because they know there are no jobs to be found. While the number of those unemployed and officially part of the labour market is around 700,000, a separate ABS survey of people considered 'not in the labour force' (NILF) shows that over 1 million other individuals want to work but have been excluded from the official definition of unemployed (ABS 2018c); instead, they are defined as 'marginally attached to the labour force.' Overall, then, at least 1.7 million people do not have a job, but want one. Put another way, less than 40 per cent of the people who aren't working but want to work are counted as officially unemployed. If we include all those who want to work, then the real unemployment rate rises to around 12 per cent of the workforce, not 5 per cent.

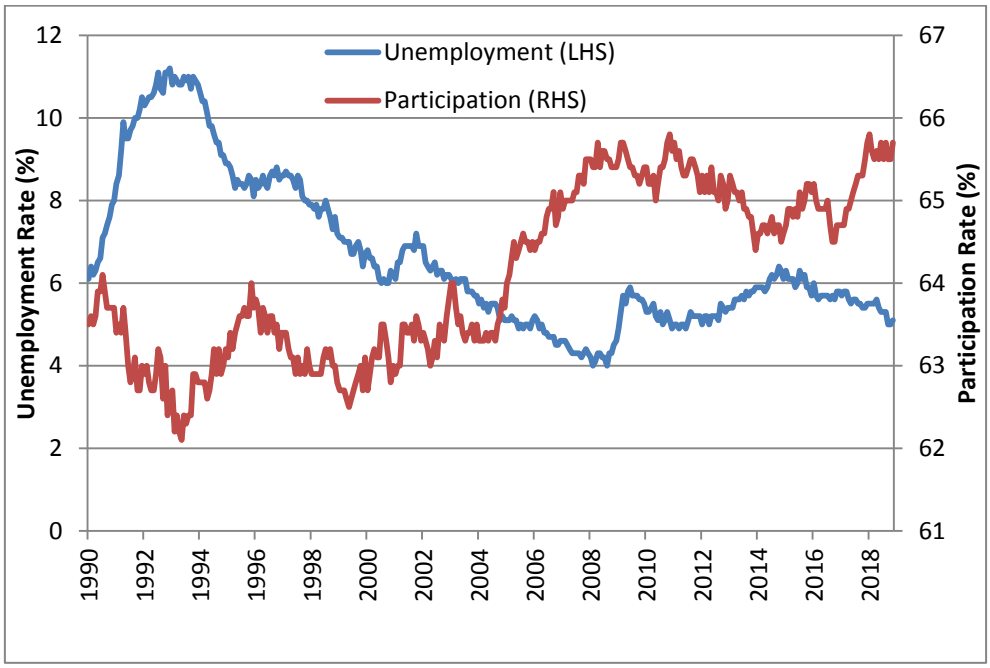
Moreover, there is also a substantial level of underemployment, which the ABS defines as people who 'want, and are available for, more hours of work than they currently have'. Close to 1.2 million people were underemployed in August 2019 (ABS 2018a), the highest on record. Taking account of all un- and underemployed people, therefore, the real rate of unemployment plus underemployment rises to closer to 20 per cent.

In sum, these figures show that the official unemployment rate is just the tip of the iceberg of labour underutilisation in Australia. This point is critical. Our labour market definitions and categorisations are out of date. In the labour market decades ago, at a time when most jobs were full-time, a 5 per cent official unemployment rate may have indicated a similar real level of unemployment and little underemployment. However, today the officially measured rate is just a fraction of the total effective unemployment rate.

To some extent, the discouraged worker and related effects show up in the labour force participation rate. The participation rate refers to the proportion of the workforce over 15 years of age who are either employed or officially unemployed (not working at all, but actively seeking it). The inverse relationship between the unemployment rate and the participation rate is shown in Figure 3.

Figure 3 clearly shows that increases in unemployment tend to be associated with falls in the participation rate, and vice versa. As unemployment increased from early 1990, so the participation rate fell, until both reversed direction in 1992. Subsequently, there was a long decline in unemployment that was eventually associated with an increase in the participation rate, until unemployment worsened again with the GFC.

Figure 3: Unemployment and participation rates (%).



Source: ABS 2018a.

Figure 3 is consistent with the workings of the hysteresis effect, whereby low unemployment encourages more people to enter the workforce, so that both officially measured unemployment and hidden unemployment are reduced. Figure 3 could also be interpreted more simply as a 'demand–pull effect', according to which as the labour market improves for workers, it attracts more people into it. Recent federal government and Treasury documents have repeatedly emphasised the need to boost participation rates in the context of the aging population (for example, see Australian Government 2015). But the impact of unemployment on participation is a critical, but underemphasised, part of that challenge. Policy should be set to maintain strong demand at the macro-economic level, as well as to assist people to move away from structural unemployment, if we want to attain high labour force participation.

MONTHLY FLOWS INTO AND OUT OF EMPLOYMENT

Another perspective on the dynamics of unemployment is provided by data showing ongoing flows into and out of employment, including by people who were previously out of the workforce (that is, they were neither unemployed or employed) but subsequently returned to it. Most discussion of labour market data focuses on net changes in employment or unemployment form one period to the next. But underlying these net flows are much larger gross flows, whereby large numbers of Australians

lose, gain, or change employment in any given period. Examining those gross flows reveals several important aspects of labour force participation and mobility.

Typically, discussions of labour force statistics assume that the major changes in the labour market consists of flows from employment to unemployment, and back again. In recent years, however, the flows from employment to not-in-the-labour-force (NILF) have been roughly twice as high as the flows between the employed and unemployed. Indeed, on average in 2018 , almost 100,000 people per month moved out of unemployment into employment. However, over the same period, a monthly average of 219,500 people moved from NILF into employment. At the same time, 72,000 employed people moved into unemployment, while 240,000 employed people moved right out of the official labour force into NILF.

These and other gross flows are shown in Table 1, based on ABS (2018a) data. Note that these figures tend to underestimate the scale of gross flows, for various reasons: new survey respondents are continuously added to the sample (and others removed after nine months), and some respondents are not able to be matched from month to month. Nevertheless, the data confirm the general finding that movements into and out of NILF are much greater than movements in and out of unemployment, as officially defined.

To understand the relative magnitudes of these gross flows, consider Table 1—derived from ABS data on survey respondents' labour market status in two consecutive months (October and November 2018). Column 1 shows the three possible states of the people concerned: employed, unemployed, or not in the labour force. Column 2 reports the numbers of people initially in each of those three states in Month 1 (October). Column 3 reports the three possible labour market states in Month 2 for each of the three initial states; Column 4 reports the number of respondents in each. Hence, in Month 1 there were 9,269,900 employed people; in Month 2, 8,957,900 of those individuals were still employed (Column 4). Of the originally employed people, 72,000 became unemployed and 240,000 moved right out of the labour force altogether. In a similar way, we can follow the status of people who were unemployed or NILF in Month 2 as they move from the left to the right-hand side of Table 1.

Table 1: Monthly labour flows ('000 people).

Initial status Month 1		A month later Month 2	
1	***2***	***3***	***4***
Employed	9269.9	employed	8957.9
		unemployed	72.0
		NILF	240.0
Unemployed	518.7	employed	99.2
		unemployed	306.1
		NILF	113.4
NILF	4923.3	employed	219.5
		unemployed	130.8
		NILF	4573.0
Source: ABS (2018a)			

What Table 1 clearly shows is that the flows into and out of the NILF category are over twice as high as the flows into and out of the unemployed category. This implies that there is a hidden 'black hole' of unemployment in Australia that is at least twice the size of the official numbers. The importance of this finding cannot be overemphasised. The official rate of unemployment refers strictly to the workers ready to take new jobs—what Marx called the 'industrial reserve army'—whose function is to keep downward pressure on wages. However, if the officially unemployed are only a small fraction of the total pool of those keeping downward pressure on wages, then official estimates of the industrial reserve army are seriously awry. Conceptions of the labour market that concentrate solely on net flows between employment and unemployment (as officially defined) are highly misleading.

For many people, including many economists, 5 per cent unemployment may sound acceptable and economically feasible. However, given the misleading nature of current labour market statistics, the implication of 5 per cent 'official' unemployment is a level of true unemployment and underemployment (counting the officially unemployed, marginally attached non-employed, and underemloyed) that is closer to 20 per cent. It stretches the imagination to believe that 20 per cent is in any way 'natural'.

AN EQUILIBRIUM?

In principle, the NAIRU is supposed to constitute some sort of equilibrium to which the actual rate will automatically and promptly return (guided by appropriate monetary policy reactions if necessary, as codified in the Taylor rule). As outlined above, this is

based on the idea that the economy moves like a pendulum around its central point—in this case, 5 per cent unemployment. Unfortunately for this view, we know that unemployment does not quickly return to the full employment rate. For example, following the peak unemployment rate of 10.5 per cent experienced in July 1983, it took until August 1989 (over 6 years) to get back under 6 per cent. Later, after the 'recession Australia had to have', when unemployment peaked at 11.2 per cent in December 1992, it took until August 2003 (over a decade) until unemployment fell back below 6 per cent (5.8).

These are glacial, not prompt, adjustments to disequilibrium. Stiglitz (2018, p. 83) points out:

> Experience … is that high levels of unemployment persists … [M]odels assume that even without government intervention, the economy is on the (unique) convergent path. [Stiglitz quotes Hendry and Muellbauer who] go on to argue that 'The world is usually in disequilibrium: economies are wide-sense non-stationary from evolution and sudden, often unanticipated, shifts both affecting key variables directly and many more indirectly … The assumption made in the business-cycle accounting framework that the economy is never very far from its steady-state trend was simply wrong'.

A former member of the Federal Reserve Board said:

> In the absence of another theory that can explain the behavior of inflation, and thereby guide policymaking, I suspect that a lot of economists are reluctant to fully let go of an approach that uses the natural rate and that assumes some robustness of the Phillips Curve. (Tarullo 2017, p. 8)

Bell and Keating (2018) point out that eschewing fiscal policy and basically leaving it to the market to achieve the natural rate of unemployment, occasionally nudged by monetary policy, produces secular stagnation. They say:

> The experience of the last few decades is that the future for many advanced economies may well involve some degree of secular stagnation of aggregate demand because of stagnating incomes for the majority of the workforce. (p. 294)

That is hardly an equilibrium. Arguably, a policy of targeting the NAIRU may produce an ongoing condition of sub-optimal growth.

5 PER CENT IN THE STATES AND REGIONS?

No matter where they live, Australians are subject to a common industrial relations system, a common tax system, fairly standard regulatory environments, common cultures and so on. Arguably, Australia makes up one large labour market. However, if we examine labour market performance across states and territories, we observe a wide variation, as is evident in Table 2.

Table 2: Unemployment rate, % seasonally adjusted (trend figure for NT and ACT).

	Oct 2018	Oct 2014
NSW	4.4	5.9
Vic	4.5	7.0
Qld	6.3	7.2
SA	5.4	6.8
WA	5.7	5.1
Tas	5.3	6.6
NT	4.6	3.7
ACT	3.7	4.8
Australia	5	6.4
Source: ABS (2018a).		

Table 2 clearly shows that on the two dates chosen (in October 2014 and 2018) there was a large variation in unemployment rates across Australia. In the later year, for example, we see that the lowest unemployment rate was 3.7 per cent in the ACT, followed by 4.4 per cent in NSW. At the other end was Queensland, at 6.3 per cent. In 2014, there is a similar pattern, with Queensland highest at 7.2 per cent and the Northern Territory swapping with the ACT for the lowest unemployment, at 3.7 per cent. But over that time Victoria went from well above to well below the average. These comparisons and transitions cast doubt on any rationale that says natural rates are roughly constant, if different across states.

If we examine variation across smaller regions of Australia, the contrasts are more dramatic. Hence in September 2018, the 'City and Inner South' region of greater Sydney had an unemployment rate of 2.3 per cent, while the Queensland 'Outback' region had an unemployment rate of 16.1 per cent (ABS 2018b). This range of experience makes one very suspicious of anything that suggests that there is a uniform 5 per cent NAIRU in Australia. No-one seems to have bothered to ask why the variation comes about and why it changes over time, or how any of that could be considered as trending towards equilibrium.

INTERNATIONAL COMPARISONS

It is important to note that many industrial countries have unemployment rates far below Australia. For example, Table 3 lists countries recently recorded as having an unemployment rate of 4 per cent or less.

Table 3: Unemployment rates in selected countries.

	Unemployment rate, July 2019 (%)
South Korea	4.0
Denmark	3.8
Britain	3.8
US	3.7
Taiwan	3.7
China	3.6
Mexico	3.5
Norway	3.4
Malaysia	3.3
Germany	3.1
Hong Kong	2.8
Japan	2.3
Switzerland	2.3
Singapore	2.2
Czech Republic	2.0
Source: *Economist*, 9 August 2019.	

It goes without saying that the countries in Table 3 encompass many very different labour markets, policy approaches, and unemployment benefits. Indeed, among high-unemployment countries, there is also a vast variation in policies, structures, and benefit systems. To explain the differences in unemployment experiences among countries, we have to look to other factors: such as their history, their demographic profile, and their varying degrees of policy commitment to full employment.

International comparisons of unemployment rates must consider country-specific factors. For example, the currently low unemployment rate in the US partly reflects a

large decline in the proportion of the population participating in the workforce–and hence reflects labour market weakness, not strength. Many Americans simply dropped out of the labour market beginning in the early 2000s, with participation falling from over 67 per cent of the working age population at the turn of the century to below 63 per cent recently (Sherman 2018).

Obviously, Australia can be proud of the way it managed to survive the GFC without a large increase in unemployment. However, the 5 per cent unemployment rate we seem to regard as now normal is well above many of the rates achieved by other countries, just as it is also well above our recent lows before the GFC, and well above our early post-war history.

RBA ESTIMATES OF THE NAIRU

Recent research by the RBA suggests that its present estimate of the NAIRU is 4.5 per cent, as we mentioned earlier. But the RBA's discussion of this and related concepts is very curious. For example, in one of the most recent attempts to explain how it estimates the NAIRU, an RBA official says, '[W]hen the observed unemployment rate is below the NAIRU, conditions in the labour market are tight and there will be upward pressure on wage growth and inflation' (Cusbert 2017).

Notice that there is no mention of accelerating inflation, just 'upward pressure', and so this definition of the natural rate is consistent with higher, but not accelerating, inflation. This is reminiscent of the original Phillips curve argument, which suggested a stable trade-off between inflation and unemployment. Moreover, estimates of the NAIRU over time shows that they have tended to follow the actual rate of unemployment. Hence any attempt to reduce unemployment below the NAIRU will place upward pressure on inflation for a while, on the basis of this specification of the NAIRU. However, in the next period the NAIRU itself will have fallen somewhat, and hence a given target unemployment will eventually result in reduced wages pressure. This suggests that the NAIRU is not a real barrier at all, but merely a 'caution' sign to indicate that further reductions in unemployment should be attempted gradually and slowly.

In fact, the RBA's analysis is consistent with a stable long-term relationship between unemployment and inflation. Under the natural rate hypothesis, holding the unemployment rate below, say, the 1990 estimate of the NAIRU at 8 per cent was supposed to generate ever-increasing inflation. Attempts to lower unemployment were doomed to fail, as unemployment was supposed to return to the NAIRU, leaving only higher inflation. Instead, the estimated graphs and associated estimates clearly

suggest a more stable Phillips curve relationship (see, for example, Graph 3 in Cusbert 2017). The RBA interprets this finding as proof of the gradually changing value of the NAIRU; but in fact it is consistent with other explanations that do not rely on the NAIRU at all.

Philip Lowe (2017) has raised the possibility that the Phillips curve is getting 'flatter'. The Phillips curve can be interpreted as telling us how much extra inflation we need to bear to reduce unemployment by a certain amount. If the relation is flatter, it means that lower unemployment implies less 'cost' in higher inflation. RBA researchers also put forward the flattening of the Phillips curve as an explanation of the recent slowdown in wages growth (Arsov & Evans 2018)—and the seemingly puzzling result that wages remained stagnant despite unemployment reaching what until recently was considered 'full employment.' Gillitzer and Simon (2015) have also reported statistical evidence that shows a flattening of the Phillips curve. Similar results have also been found in the US (Gordon 2018) and the UK (Cunliffe 2017). Indeed, as the Phillips curve gets flatter, we can say that there is virtually no relationship at all between unemployment and inflation. That is also suggested by Australia's recent experience.

All of this suggests that the RBA is using Friedmanesque NAIRU language in a completely inappropriate way. Strictly speaking, the Phillips curve is not at all consistent with the theoretical model underpinning the NAIRU. And now empirical evidence seems to suggest that even Phillips curve relationships have disappeared. In sum, the RBA's own presentation of the empirical evidence does not sit at all well with the language of the NAIRU or its synonyms—and is certainly incompatible with the Bank's constant, overarching concern with the inflationary consequences of strong employment outcomes.

Conflict Theories of Inflation and Unemployment

This section of the report will engage further with the theory and logic behind the NAIRU. We have seen that the empirical evidence of Australia's labour market history is clearly at odds with NAIRU thinking. We can also critique the logic of the NAIRU model by considering alternatives to the mainstream theory of inflation.

There are several theories of inflation that are not based on the assumption that inflation always arises from excess labour demand. For example, one important approach locates a major cause of inflation in conflict between labour and capital.[10] Post-Keynesians like Joan Robinson (1976) saw the inflation problem as being a by-product of 'class war', writing:

> [W]orkers must struggle to keep their share of the product of industry and corporations must struggle to prevent them from increasing it … There is not only a class war between employers and workers as a whole. There is an internal struggle of each group to maintain its relative position. (p. 122)

Michael Kalecki (1971) also made important contributions to this line of thinking, showing how the mutual interactions of wage and price setters would determine the distribution of income, and showing in which sectors of the economy profits and outputs might contract or expand. Kalecki also pointed to policies such as prices and incomes controls, along with wage/cost of living subsidies, which could manage and moderate the incidence of conflict-driven inflation. Other theories of inflation have also further developed the idea that the income claims of capital and labour may be inconsistent; if those claims add up to more than the value of national product, the result will be inflation (Lavoie 2014).

These alternative theories are important and relevant to evaluating NAIRU models. If inflation has nothing to do with whether the economy is above or below some assumed equilibrium level of unemployment, then there is nothing necessarily desirable about a rate of unemployment at which inflation appears to be stable. Stable

[10] Sometimes other factors are included, such as the actions of the Organisation of Petroleum Exporting Countries (OPEC) in the 1970s, which dramatically increased oil prices and spilled over into a broader acceleration of inflation.

inflation may occur well above or below the rate of unemployment at which everyone who wants a job can reasonably get one.

The Wages and Prices Accord between the Australian Council of Trade Unions (ACTU) and the Hawke Government in 1983 only made sense if wage-price outcomes were regarded not as a market outcome, but rather as the outcome of conflict between capital and labour. That policy had many antecedents. For example, in 1971 Richard Nixon imposed his wage price controls, the first peacetime use of wage and price controls in the US and a complement to a stimulatory macro-economic package (Abrams & Butkiewicz 2007). Going back further, the wartime price controls certainly dispensed with the niceties of 'leaving it to the market.'

These alternative approaches and policies may accept a relationship between inflation and unemployment, but that relationship is very different than the one implied in NAIRU theory. In fact, in conflict theory there is a trade-off between inflation and unemployment that should be managed in a way that might improve that trade-off, and hence achieve both lower inflation and lower unemployment. Beggs (2018) describes how Australia moved away from a successful wage-setting and demand-managed economy to a market-dominated model, by following the NAIRU logic.

Generally, economists rarely integrate economic power into their analyses and models. They prefer to work with models in which no actor has the ability to exercise any power over their price or wage—let alone over the economic levers exercised by government. However, in further exploring below the views of Kalecki, we will consider the view that the state of the economy is used as a weapon against labour. We also note the extensive current literature showing that the decline in the power of workers may be an explanation of both the shift in distribution of income towards capital, and the associated slowdown in wage growth. The ACTU have proposed a number of measures that would address the recent deterioration in workers' power, restore a more level playing field between labour and capital, and hence support a stronger trajectory for wages (Kyloh 2018).

Further Errors in NAIRU Thinking

FRIEDMAN'S THINKING BEHIND THE NATURAL RATE

This section considers some of the additional features and anomalies in the NAIRU model of inflation. The core theory has remained largely the same since Friedman (1968) first introduced the concept. The essence of Friedman's argument (1968) is, in his own words:

> [T]here is some level of unemployment which has the property that it is consistent with equilibrium in the structure of real wage rates. At that level of unemployment, real wage rates are tending on the average to rise at a 'normal' secular rate … [A]ssume that the monetary authority tries to peg the 'market' rate of unemployment at a level below the 'natural' rate … [T]he authority increases the rate of monetary growth. This will be expansionary … [S]pending [is stimulated]. Income and spending will start to rise. To begin with, much or most of the rise in income will take the form of an increase in output and employment rather than in prices … Because selling prices of products typically respond[s] to an unanticipated rise in nominal demand faster than prices of factors of production, real wages received have gone down—though real wages anticipated by employees went up, since employees implicitly evaluated the wages offered at the earlier price level. Indeed, the simultaneous fall ex post in real wages to employers and rise ex ante in real wages to employees is what enabled employment to increase (p. 8).

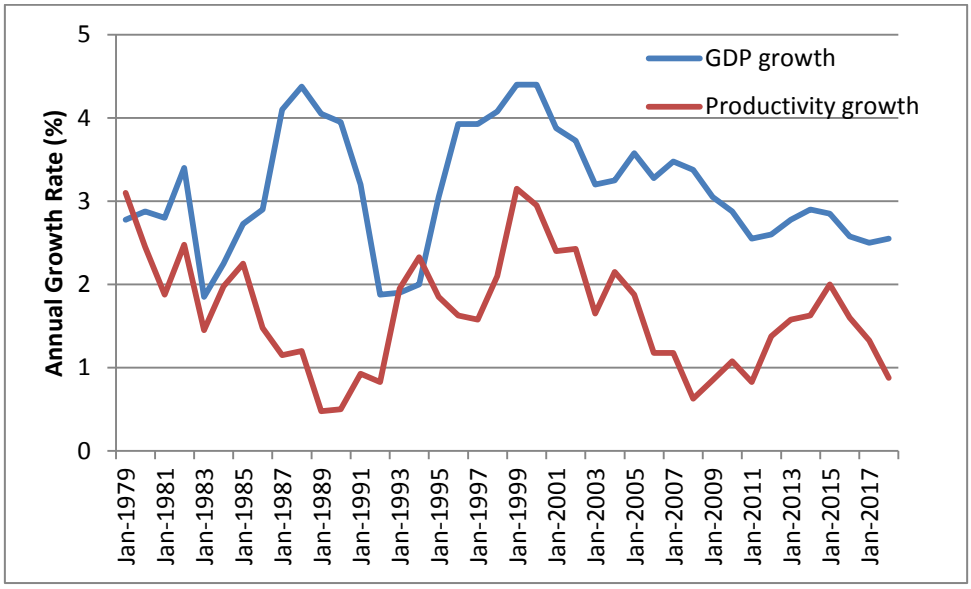
Thus, according to this logic, the only reason employment rises at all with rising inflation is that workers are fooled into thinking that real wages have gone up (when in fact they have not), so they voluntarily supply more labour. It is each worker's choice as to whether they are individually employed, and those choices (aggregated across the labour market) determine the residual number of unemployed (who Friedman thinks of as voluntarily non-employed). Ultimately, then, the NAIRU approach assumes that unemployment and fluctuations in unemployment are due to choices on the part of the workforce.

This flies in the face of ordinary experience, and it is an insult to unemployed workers. According to this view, the major increases in unemployment after the 1960s must

have been due to a big breakout in expectations of higher paying jobs among the workforce. Friedman acknowledges that the natural rate of unemployment itself might be influenced by such things as 'the strength of labor unions'. He also accepts that '[i]mprovements in employment exchanges, in availability of information about job vacancies and labor supply, and so on, would tend to lower the natural rate of unemployment'. However, the point is that for monetary and fiscal policy purposes, the natural rate can be regarded as fixed. *Movements* in unemployment reflect people being tricked into thinking they are being paid more or less than they actually are.

Notice, too, that when workers are fooled into accepting lower real wages, employers are encouraged to employ more people. It seems that no matter what the level of demand, employers will only employ more workers when real wages fall. The assumption here is that labour is subject to diminishing returns, and so increases in employment can only come about with a fall in the real wage. If this were true, we should see productivity fall as the economy surges, and we should see it rise during slumps. In other words, productivity should be countercyclical—rising when output falls, and falling when output rises.

Figure 4: GDP growth and productivity growth in annual 4-year moving averages (% change).



Source: ABS, *Australian System of National Accounts*, Catalogue 5204.0.

But instead of countercyclical productivity growth, researchers have long observed that productivity growth is pro-cyclical (Basu & Fernald 2001; Bernanke & Parkinson 1990). These findings suggest increasing returns to scale, rather than the opposite assumed by Friedman. In the case of Australia, Figure 4 plots the rate of growth in gross domestic product (GDP) and the rate of real labour productivity growth. The

figure is based on four-year moving averages to eliminate year-to-year volatility and isolate longer-run patterns.

Figure 4 shows quite clearly that there is usually a strong pro-cyclical pattern in productivity, with productivity growth rising on average when GDP growth is faster. The one major exception is in the years 1986 to 1992 (when productivity growth slowed even as growth accelerated), but otherwise the positive association is quite strong. This result is very important to macro-economic policy. A good deal of modern macro-economics is based on the notion that the economy is in equilibrium, or is promptly moving towards equilibrium, with firms able to sell all they want to sell (that is, there is no demand constraint on output and employment). The presence of increasing returns upsets that notion, because firms become able to sell more (at lower unit costs) if adequate demand is present—but that cannot be relied on if all firms are simultaneously facing falling unit costs. The state of the economy at any point in time cannot therefore generally considered to be in equilibrium, or close to it, when firms would happily increase output if only the sales were there.

Years ago, Evsey Domar (1988) argued that the fundamental characteristic of capitalism was an overall excess supply but a deficiency of demand. That appears to be the case even at or around the estimated NAIRU. For example, during the September quarter of 2018, the unemployment rate went from 5.3 per cent in July to 5.0 per cent in September (matching the official NAIRU), implying that the economy was at a full-employment equilibrium. Yet at that time, when the National Australia Bank (2018) conducted its quarterly survey of businesses, 50 per cent of businesses reported that sales and orders were constraining their activity. Indeed, over the last decade, this response has been consistently over 50 per cent. When over half of all businesses report that they are demand-constrained, then the economy is clearly a long way from 'equilibrium', and the thinking behind the NAIRU is seriously wrong. In reality, the Australian economy is clearly very different from the economy assumed in the NAIRU literature.

UNEMPLOYMENT: A CLASS WEAPON

If unemployment falls, and the economy moves closer to a sellers' market for labour, significant other changes will be sparked in both the economic and the political realms—as Kalecki (1943) pointed out many years ago. As he said:

> [T]he *maintenance* of full employment would cause social and political changes which would give a new impetus to the opposition of the business leaders … [T]he '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. Strikes for wage increases and improvements in conditions of work would create political tension. It is true that profits would be higher under a regime of full employment … But ‘discipline in the factories’ and ‘political stability’ are more appreciated than profits by business leaders. Their class instinct tells them that lasting full employment is unsound from their point of view, and that unemployment is an integral part of the ‘normal’ capitalist system (p.3, emphasis in original).

Resistance to full employment policies also comes about because if aggregate employment becomes independent of decision-making by businesses, then business loses a valuable tool. Threats about ‘business confidence’ are a powerful tool that business uses to achieve a more supportive government policy. In Australia, we often see references to the state of ‘business confidence’ and concepts such as ‘sovereign risk’—namely, the idea that governments might scare off business if they change policy on the environment, access to resources, etc.

Michael Keating refers to the ‘powerful and articulate’ Business Council of Australia (BCA), whose ‘reform agenda is stuck in the past with its demands for lower wages and taxes’ (Keating 2018). According to Rugitsky (2013, p. 460):

> Tiring references in the public sphere to the oscillations of ‘business confidence’ or ‘investor expectations’ are actually indicators of the constant blackmailing of governments by capitalist groups, and remind bureaucrats of the permanent danger of a ‘Kaleckian reaction’—that is, an investment strike of capital owners.

Most important here is the concern that full employment would reduce the discipline on the workforce—that is, the threat of being fired would no longer serve to elicit docile behaviour on the part of workers. Hence, business opposes its workforce on the factory floor, as it were, as well as in the political arena. In most countries, we can identify pro-business and pro-worker political parties. The political process is utilised to take collective action against the working class—proscribing, for example, the right to strike in Australia, and imposing heavy fines on successful unions.

The corollary of such policy and the thinking behind it is that life cannot be too comfortable for those made unemployed, who must be kept desperate for work. In this respect, we see the complementarity between NAIRU-inspired macro-economic policy (targeting a minimum desired level of unemployment) and the vilification and impoverishment of unemployed people. On one hand, it is utterly contradictory to

demonise unemployed people and cut their benefits, when their status as unemployed is a deliberate outcome of macro-economic policy. But seen in the context of business opposition to full employment (because of its effects on worker resistance and militancy), harshly punishing unemployed people is quite consistent: because it enhances the disciplinary value of any level of unemployment.

LOST PRODUCTION

The article in *The Economist* (2017) cited earlier pointed to the economic waste associated with involuntary unemployment, the personal and social consequences, and the negative impact of unemployment on fiscal balances—among other major consequences. These consequences from long-term unemployment are starkly visible in Australia. An insight into their order of magnitude can be gained by contrasting Australia's experience with the record of Alan Greenspan's management of monetary policy in the US.

Greenspan pushed the US economy well past what was then its estimated NAIRU, with unemployment falling below 4 per cent in 2000—a level which had not been experienced in decades.[11] Yet there were no inflationary consequences, and inflation remained subdued in the face of labour markets tighter than any experienced in a generation. Greenspan was a well-known advocate of the 'new economy thesis', and he applied this theory to explain America's stronger-than-expected economic growth. According to him (Greenspan, 2000), 'the most compelling [explanation] appears to be the extraordinary surge in technological innovation that developed through the latter decades of the last century'. The fact that this high-demand high-growth economy managed to avoid inflationary pressures was the result of severe competitive pressures—not only on firms, but also on workers.

Nobel Prize winner Robert Solow asked, in the American context, whether the economy could have grown more rapidly in the 1980s and 1990s without much more inflation (Solow 1999). His answer suggests that policy-makers should not hide behind discredited concepts such as the NAIRU. Instead, they should push the economy as far towards full employment as possible, without setting off ever-increasing inflation. He cites evidence for the US that for every 1 per cent by which the unemployment rate is held below the estimated NAIRU, inflation is only 0.3 per cent higher than it would otherwise have been. Those are relatively trivial costs compared to the huge economic, social and fiscal costs of higher unemployment.

[11] These figures have been revisited again in 2018, again without inflationary consequences.

Certainly, the US experience suggests that an economy can be substantially below its estimated NAIRU without triggering ever-accelerating inflation. Moreover, if it was indeed found that lower unemployment pushes inflation to unacceptable levels, then the authorities can always ease off, and the net costs in the interim period will have been rather slight. Stiglitz also suggests that the costs of any higher inflation when unemployment is below the NAIRU are likely to be small relative to the benefits of the higher employment. He says that policy makers should go further towards lowering unemployment:

> Testing the waters, we do not risk drowning. If need be, we can always reverse course. But by experimenting, and showing some hesitation about restraining the economy through higher interest rates … as the NAIRU draws nigh, we might learn a little more about the depth of the waters and possibly become better swimmers … (Cited by Bell 1999 p. 80)

The Australian experience is much different. As Beggs (2018) describes it:

[The RBA] believe it is easier to feed inflation than to dampen it: sub-NAIRU unemployment increases inflation faster than above-NAIRU unemployment brings it down (p 265).

Unlike the US Federal Reserve, our central bank erred on the side of higher unemployment and lower inflation. The flatter Phillips curve mentioned above suggests that there is not much risk in attempting to lower unemployment: any increase in inflation will be much smaller than in previous years when the Phillips curve was steeper.

We referred to the large social and private costs associated with the individual's experience of unemployment. However, there are also large costs to the economy overall. Given the current distribution of income in Australia (with just under half of total GDP paid out to workers in the form of wages, salaries, and supplementary compensation), GDP must increase by around $2 to increase wages by $1. On that basis, taking 1 per cent of the official workforce, 134,000 people, and giving them a full-time job at the minimum wage would increase the wages bill by $5 billion per annum—which is consistent with GDP increasing by $10 billion. Thus without any multiplier effects or other indirect effects, an economic policy that targets a reduction of unemployment by just 1 percentage point increases economic output by at least $10 billion. This in turn generates increased tax revenue and an improvement in the budget balance.

In practice, a much larger increment of GDP may be required to reduce the official rate of unemployment by 1 per cent. The hidden unemployed and the underemployed are also likely to receive some of the additional hours of work on offer. But that is not a bad thing. If the ratio of GDP to new employment were much higher—say, $30 billion to reduce official unemployment by 1 per cent—that simply means that we can lower unemployment by that amount *and* enjoy $30 billion in extra output per annum.

PRODUCTIVITY

If the official policy of targeting 5 per cent unemployment is responsible for relatively low levels of aggregate demand, there can be consequences for productivity. When labour is scarce, employers are motivated to substitute capital for labour, which has the effect of increasing productivity and, ultimately, living standards. This has been evident in recent studies. Bill Martin and Robert Rowthorn, of the University of Cambridge, argue that traditional thinking about productivity has reversed cause and effect. Instead of productivity increases leading to higher wages, they say, the reverse is true: higher wages induce higher productivity. As they suggest:

> The UK's poor productivity is more plausibly interpreted as a symptom of a largely demand-constrained, cheaper labour economy—a condition misinterpreted by supply pessimists as a sign of structural weakness. Output is well below potential because workers, while cheaper to employ, are not working to potential. More output could be produced, but not sold. There is an effective demand failure, high unemployment and, within companies, under-utilisation of the employed workforce—a form of 'labour hoarding'. (Martin & Rowthorn 2012)

The joint effect of high wages and labour shortages under conditions of strong aggregate demand stimulates higher productivity growth as employers try to economise on their labour costs. Alice Rivlin, a former Vice Chair of the Federal Reserve Board, reflected similarly on the lessons of monetary policy in the US. A major theme for her was that 'tight labor markets have enormous social benefits' (Rivlin 1999). People with limited skills and experience are finally able to be hired, for example, which gives them the opportunity to learn on the job and to build up a work history. Other workers have the chance to obtain more training and take on greater responsibilities, and they can more easily sever from dead-end jobs. Moreover, the economic situation improves for the unskilled so that 'the widening gap between education groups appears to have stabilised, at least temporarily, and may even be beginning to narrow'.

On top of all this, there are productivity and other economic benefits to lower unemployment. As Rivlin (1999) says:

> Productivity growth accelerated in 1997 and 1998 as labor markets tightened. Nobody knows exactly why or how long it will last. My own conjecture is that, combined with rapidly evolving information technology, scarcity of labor forces firms to reorganise their processes, use employees more effectively, provide or encourage additional training, and substitute machines for people. To the extent that tight labor markets actually contribute to faster productivity growth, their inflationary impact is diminished.

Conclusion

Australian economic policy has been heavily influenced by the NAIRU for decades. Policy has been guided by an attempt to move unemployment toward the NAIRU—a level at which inflation should be steady and within the RBA's target range. One of the problems dealing with such a slippery and invisible concept is that there may be different opinions as to its value. Those differences have now spilled over into a policy disagreement between the RBA and the government. By conceding that the NAIRU (if it even exists) is at least a half-point lower than Treasury's official estimate, the RBA is essentially charging the government with wasting the economic potential of an additional 71,000 workers and perhaps $10 billion in lost production.

Our deeper concern is that government believes 5 per cent is the normal, and in some sense 'best', rate of unemployment—as well as an appropriate target for macro-economic policy. Based on the empirical evidence and theoretical critique presented here, we do not believe that the NAIRU or related concepts should be accepted by government or the RBA, let alone be elevated to the top of the list of economic priorities.

Further, by creating needless unemployment, adherence to the NAIRU generates costs for the economy and for society as a whole. Those costs are especially borne by some of the most vulnerable members of society. Accepting the NAIRU perpetually condemns 5 per cent of Australia's workforce to a miserable life—and that number is much higher if we include underemployed, 'marginally attached', and other potential workers who could perform productive work if they were given the opportunity. Moreover, the probability of being unemployed (officially or otherwise) is not shared evenly among the workforce, but instead is higher for those who have insecure work and move in and out of employment/unemployment. Australia's own history and the experience of other countries show that Australia could do a lot better in reducing unemployment. Indeed, one of the chief consequences of the long-standing intellectual and ideological dominance of the NAIRU is that government has entirely eschewed any commitment to a genuine full employment policy.

Australia's government and the RBA should make a joint recommitment to true full employment, backed up with real policy measures to attain it. This recommitment would be reminiscent of the 1945 White Paper on Full Employment (Parliament of the Commonwealth of Australia 1945), which shaped macro-economic policy in Australia for the most successful generation of growth and rising living standards in our history.

No matter what the cause of unemployment, government should be focused on its reduction and abolition, as the top priority of macro-economic policy.

Currently, fear of getting the 'sack' plays a disciplinary role, forcing workers to accept jobs with poor conditions and tenure. Employers control the working environment, and the confidence and power of workers to make successful wage claims is at a historic low. Workers and employers do not meet as equals in a free market—regardless of the attempts of business leaders and free-market economists to pretend that they do. Indeed, business unbelievably presents itself as the underdog, arguing that workers and their unions need to be hobbled with strict regulations and barriers to representation, collective bargaining and industrial action. For far too long, the labour market has been a buyers' market; it is high time to turn it into a sellers' market.

A genuine full employment policy is one which meets the old-fashioned meaning of full employment: that is, anyone who wants a job can quickly find one. We reject any approach that involves accepting 5 per cent unemployment as 'full employment'. Meanwhile Australia should be investing in the continuing attachment of the unemployed to the workforce through increases in Newstart and skills maintenance for the unemployed.

As governments move the economy toward full employment, business investment and productivity will also increase, while inequality should decrease. A shortage of cheap labour will force labour-saving investment, with consequent productivity improvements.

Businesses may complain that they can no longer readily find workers. If that is genuinely the case, then businesses will face a situation where they cannot realise as much potential profit as they would prefer (if they could hire more workers to produce more output). But they will still be profitable, and they can respond to labour shortages by investing in labour-saving technology and improving productivity. Meanwhile, workers, their families and the economy generally will all be substantially better off. It would seem difficult to argue that the interests of workers and the living standards of their families should be of equal importance to the profits of business—but that is exactly the implication of the NAIRU theory that still holds Australia back from reaching its true economic potential.

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