Fiscal Policy and the Job Guarantee

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Abstract

Most OECD economies have suffered from persistently high unemployment since the mid-1970s as a result of demand deficiencies promoted by inappropriate fiscal and monetary policy. Governments have failed to understand the opportunities that they have as the issuer of the currency. In this paper, a framework for analysing these opportunities is presented. We compare two buffer-stock means of stabilising the price level: (a) the NAIRU approach, which uses a buffer stock of unemployed; and (b) the Job Guarantee, which is an open ended, fixed wage buffer stock of employed workers. The government offers a fixed wage to anyone willing and able to work, and allows market forces to determine the total quantity of government spending. This option is available to the government as the monopoly issuer of fiat currency.

We show that budget deficits are necessary to maintain full employment if the private sector is to pay taxes and has a positive desire to net save. In this regard, the orthodox treatment of the accounting relation termed the government budget constraint as an ex ante financial constraint is in error. We show that government spending is only constrained by what real goods and services are offered in return for it. There is no financing requirement. Debt issuance is seen as part of a reserve maintenance operation by the RBA consistent with their monetary policy cash rate targets.

"The political revival of free-market ideology in the 1980s is, I presume, based on the market's remarkable ability to root out inefficiency. But not all inefficiencies are created equal. In particular, high unemployment represents a waste of resources so colossal that no one truly interested in efficiency can be complacent about it. It is both ironic and tragic that, in searching out ways to improve economic efficiency, we seem to have ignored the biggest inefficiency of them all". Alan Blinder (1987, p. 33)

Introduction

Discretionary monetary and fiscal policy decisions have meant that the Australian economy, like most others, has been prevented from generating enough jobs in the last 25 years to match the growth of the labour force. The same policy decisions have also not allowed the economy to generate enough hours of work to match the preferences of the employed. The result has been persistently high unemployment and rising levels of underemployment (Mitchell and Carlson, 2001). Ironically, highly desirable, labor intensive projects go undone; to the detriment of all (see Mitchell, 1998a; Mosler, 1997-98; Wray, 1998; Kregel, 1998). The dominant economic orthodoxy has, since the mid-1970s, supported policy makers and politicians who have deliberately and persistently

constrained their economies under the pretext that the role of policy is to ensure the economy functions at the so-called natural rate of unemployment. The cumulative costs of the foregone output and unemployment are huge and dwarf the costs of alleged microeconomic inefficiency (Mitchell, 1993; Mitchell and Watts, 1997; Watts and Mitchell, 2000; Harvey, 2000). There is also mounting empirical evidence undermining the NAIRU approach (Chang, 1997; Fair, 2000; Akerlof et al., 2000, Mitchell, 2001a; Mitchell and Muysken, 2001).

Modigliani, who introduced the term NAIRU to the economics profession, has recently argued that (Modigliani, 2000, p. 3) that 'Unemployment is primarily due to *lack of aggregate demand*. This is mainly the outcome of erroneous macroeconomic policies … [the decisions of Central Banks] … inspired by an obsessive fear of inflation, … coupled with a benign neglect for unemployment … have resulted in systematically over tight monetary policy decisions, apparently based on an objectionable use of the so-called NAIRU approach. The contractive effects of these policies have been reinforced by common, very tight fiscal policies (emphasis in original).'

Underpinning the economic and political debate is a question: Is it better to fix the economy at full employment and then attend to any perceived problems that arise like inflation and exchange rate pressures; or, is it better to fix the economy at a low inflation rate and then try to solve the problem of persistently high unemployment? Though the evidence dictates the real costs of unemployment substantially outweigh any costs of inflation (and there is no strong evidence that a low inflation-environment delivers more external stability); politically, the desire to use unemployment to fight inflation has prevailed in most OECD countries.[1] Voters have been convinced it is better to suffer high unemployment than to risk even moderate levels of inflation.

As a consequence, full employment has been abandoned in most OECD countries. With this myopic NAIRU-buffer stock attack on employment, unemployment will continuously inhibit both real growth and the standards of living of the Australian people (see Mitchell, 2001a; Mitchell and Muysken, 2001 for Australian and Dutch evidence to support Modigliani's claim).

In this paper, we argue that there is another option available; instead of mandating a buffer stock of unemployment to stabilise prices, governments can both more effectively anchor prices and maintain full employment with an open ended, fixed wage buffer stock of employed workers. We term this approach the Job Guarantee (JG) policy (Mitchell, 1998a; 2000a; Mosler, 1997-1998; and Wray, 1998).[2] The paper juxtaposes these two buffer stock options: employment (JG) versus unemployment (NAIRU). We confine ourselves to the macroeconomics issues only, including, (a) the impact and implications of the impact on the budget deficit; (b) the implications for inflation; and (c) the implications for the balance of payments. A number of papers have analysed broader microeconomic concerns (see Mitchell, 1998a; Kregel, 1998; Wray, 1998; Forstater, 2000; and Mitchell and Watts, 2001).

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[1] What are the costs of inflation? Blinder (1987, pp. 45-50) 'More precisely, is the popular aversion to inflation based on fact and logic or on illusion and prejudice? … Too many trips to the bank? Can that be what all the fuss is about? … Can that be all there is to the costs of inflation? The inefficiencies caused by hyperinflation are, of course, monumental. But the costs of moderate inflation that I have just enumerated seem meager at best'. Blinder (1987, p. 51) also reacts to critics who lay all manner of societal ills on inflation at 6 per cent, says 'Promiscuity? Sloth? Perfidy? When will inflation be blamed for floods, famine, pestilence, and acne? … And the myth that the inflationary demon, unless exorcised, will inevitably grow is exactly that – a myth. There is neither theoretical nor statistical support for the popular notion that inflation has a built-in tendency to accelerate. As rational individuals, we do not volunteer for a lobotomy to cure a head cold. Yet, as a collectivity, we routinely prescribe the economic equivalent of lobotomy (high unemployment) as a cure for the inflationary cold. Why?'.
[2] Mosler (1997-98) and Wray (1998) use the term Employer of the Last Resort (ELR) instead of the Job Guarantee. The two policy approaches are virtually identical.

We show that the JG approach represents a break in paradigm from both traditional Keynesian policies and the NAIRU-buffer stock approach. The difference is a shift from what can be categorised as 'spending on a quantity rule' to 'spending on a price rule'. For example, under current policy, the government generally budgets a quantity of dollars to be spent at prevailing market prices. In contrast, with the JG option, the government offers a fixed wage to anyone willing and able to work, and thereby lets market forces determine the total quantity of government spending. We categorise this as spending based on a price rule.

The paper is laid out as follows. Section 2 provides a brief history of the pathology in the Australian economy since the 1970s. Section 3 provides a theoretical structure for understanding the persistently high unemployment. In section 4, we compare two buffer stock methods of stabilising prices: (a) the NAIRU approach, and (b) the approach we call the Job Guarantee. Section 5, examines the financial implications of using budget deficits to facilitate the JG policy. In section 6, we briefly review the balance of payments effects of introducing the JG policy. Concluding remarks follow.

2. A Brief History of Pathology

The course of inflation and unemployment in Australia since 1970 is plotted in figure 1. Mitchell (2001a) uses an accounting framework to decompose the unemployment increases into demand and supply factors and finds that the 1974 recession was markedly different to those that had occurred in the 1960s and also different to the two major downturns since (1983 and 1991). The rise in unemployment between 1975 and 1978 has never been reversed. Once the economy resumed more normal aggregate relations from 1978, the jobless stock was trapped in this historical episode. The 25 year period of persistently high unemployment had begun and the policy response since has been inadequate. Since the December 1974 trough the unemployment-unfilled vacancies ratio has averaged 11.1.

Figure 1 Inflation and Unemployment, Australia, 1970-2000
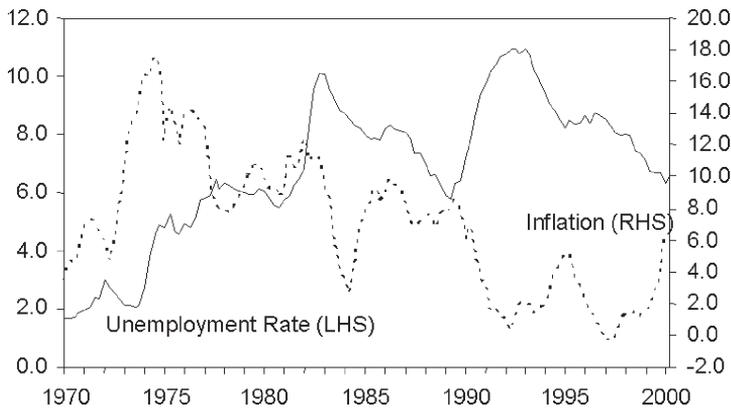
Source: ABS Treasury Model database.

Figure 2 Labour Demand and Unemployment, Australia, 1966-2000
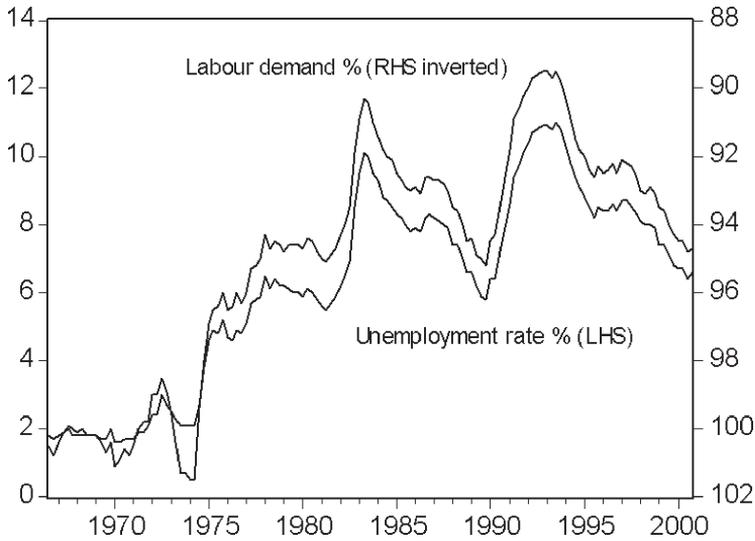
Source: ABS AUSSTATS, NIF current series data. The ratio is total unemployed (000s) to unfilled vacancies (000's).

In figure 2 the unemployment rate is plotted on the left hand scale against the sum of employment and vacancies (as a percentage of the labour force) as a measure of labour demand on the right hand scale (inverted). The correspondence between the two series is striking and a major part of the variation in the unemployment rate appears to be associated with the evolution of demand. Modigliani (2000, p.5) concluded, 'Everywhere unemployment has risen because of a large shrinkage in the number of positions needed to satisfy existing demand'.

Further, the major shifts in the Beveridge curve since the 1960s have been driven by cyclical downturns rather than any autonomous supply side shifts (Mitchell, 2001a, Mitchell and Muysken, 2001). Mitchell (1987) has previously shown that structural imbalances (supply constraints) can be the result of cyclical variations and can be resolved, in part, by attenuating the amplitude of the downturns. Further, many studies have shown that the relationship between long-term unemployment and the unemployment rate is very close (Chapman et al., 1992). While Layard, Nickell and Jackman (1991) may claim search effectiveness declines and this contributes to rising unemployment rates, the empirical evidence supports the argument that both are caused by insufficient demand. The policy response then is entirely different.

To help account for the rise in unemployment in Australia it is useful to compute the evolution of the GDP gap. For the unemployment rate to remain constant, real GDP growth has to be equal to the sum of labour force and labour productivity growth, *other things equal*. In the midst of on-going debates about labour market deregulation, minimum wages and taxation reform, the most salient, empirically robust fact that has pervaded the last two decades is that the actual GDP growth rate has rarely reached this full employment rate.[3] This evolution can be captured by examining the relationshop between the labour force and total employment. The relationship is shown for Australia since 1960 in figure 3.

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[3] The full employment GDP rate is strictly the rate of GDP growth required to keep unemployment from changing. Given that we started from a period of full employment the two are the same.

Figure 3 Labour Force and Total Employment, Australia, 1960-2001
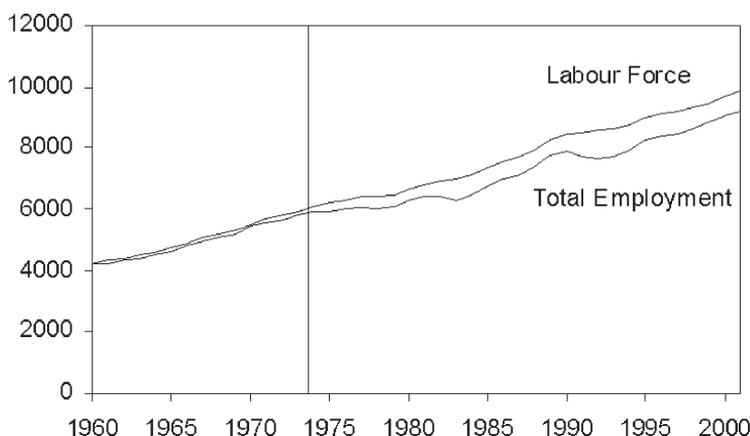
Source: ABS AUSSTATS Labour Force and National Accounts data.

Prior to 1974, GDP growth was sufficient to generate full employment. After that point, GDP gaps persisted and the evolution of unemployment reflects the history of that deficiency. Mitchell (2001a) finds that a measure of investment shortfall and the yield curve spread (as a measure of monetary policy) are the most significant determinants of the evolution of the GDP gap. No supply side measures were statistically significant. The period of deficient demand since the mid 1970s has corresponded with a regime shift in macroeconomic policy making. The goal of low inflation replaced other policy targets, including low unemployment. The result has been that employment and labour force growth in OECD countries has exhibited the pattern shown in figure 3. We refer to this period as the NAIRU-buffer stock era.[4] A major manifestation of the policy change has been sharp cutbacks in public sector employment. Mitchell (2001b) shows that while private employment growth (1.91 per cent per annum) more or less matched the growth rate of the labour force (1.87 per cent per annum) between 1970 and 1999, public employment growth average 0.6 per cent per annum over the same period and was negative throughout the 1990s. The rise in unemployment would not have occurred if public sector employment had have matched the labour force growth rate. It is worth noting that in the USA, the private and public sector growth rates matched the labour force growth rate between 1970 and 1999.

In the next section, we formalise this pathology in terms of a theory of demand-deficient involuntary unemployment.

3. A Monetary Explanation for Involuntary Unemployment

With today's central banking and floating exchange rates, bank deposit money is necessarily endogenous, as it only exists to the extent that there are outstanding bank loans. This is also true for all credit instruments - for every asset there is a corresponding liability. In aggregate, there can be no net savings of financial assets. We define involuntary unemployment as idle labor offered for sale with no buyers at the current price (money wage). As a matter of accounting, for the aggregate output to be sold,

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[4] Blinder (1987, p. 38) concurs, 'if both hard-headed proponents of efficiency and soft-hearted proponents of equity should prefer low unemployment, why have Western democracies offered up such high unemployment? The answer is both simple and vexatious: inflation'.

total spending must equal the total of all wages and profits. Unemployment will occur when the private sector, in aggregate, desires to earn the monetary unit of account, but doesn't desire to spend all it earns. That results in involuntary inventory accumulation among sellers of goods and services and translates into decreased output and employment. In this situation, nominal (or real) wage cuts *per se* do not clear the labour market, unless those cuts somehow eliminate the desire of the private sector to net save, and thereby increase spending. This point is articulated in Post Keynesian theory but plays no role in the neoclassical/monetarist explanations of unemployment.[5] It is the introduction of 'State Money' into a non-monetary economics that raises this spectre of involuntary unemployment.[6] Extending the model to include the foreign sector makes no fundamental difference to the analysis and as we will private domestic and foreign sectors can be consolidated into simply the *non-government sector* without loss of analytical insight.

The only entity that can provide the non-government sector with net financial assets (net savings) and thereby simultaneously accommodate any net desire to save and eliminate unemployment is the government sector. It does this by (deficit) spending. Furthermore, such net savings can only come from and is necessarily equal to cumulative government deficit spending. National income accounting is thus underpinned by the identity; the government deficit (surplus) equals the non-government surplus (deficit). The systematic pursuit of government budget surpluses must be manifested as systematic declines in private sector savings. This is contrary to the mainstream rhetoric.

The non-government sector is dependent on the government to provide funds for both its desired net savings and payment of taxes to the government. To obtain these funds, non-government agents offer real goods and services for sale in exchange for the needed units of the currency. This includes, of-course, the offer of labor by the unemployed. The obvious conclusion is that unemployment occurs when net government spending is too low to accommodate the need to pay taxes and the desire to net save. We show in a later section that government spending is never inherently revenue-constrained. It is only constrained by what is offered for sale in exchange for its currency.

Returning to the textbook case (with a consolidated private sector including the foreign sector), total private savings thus equals private investment plus the government budget deficit. And, if we disaggregate the non-government sector into the private and foreign sectors, then total private savings is equal to private investment, the government budget deficit, and net exports, as net exports represent the net savings of non-residents. Wray (1998, p. 81) says, "Normally, taxes in aggregate will have to be less than total government spending due to preferences of the public to hold some reserves of fiat money". Thus, in general, he expects deficit spending to be necessary to ensure high levels of employment.

This framework also allows us to see why the pursuit of government budget surpluses will be contractionary. Pursuing budget surpluses is necessarily equivalent to the pursuit of non-government sector deficits. They are the two sides of the same coin. In recent years, financial engineers have empowered consumers with innovative forms of credit, enabling them to sustain spending far in excess of income even as their net nominal wealth (savings) declines. Financial engineering has also empowered private-sector firms

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[5] Blinder (1987, p. 105) concludes, 'Keynesians do insist that they see involuntary unemployment in the land, no matter how many idealized theoretical models say that no such thing can exist. To a Keynesian, seeing is believing. New classicists insist on seeing what they believe.'

[6] Following the chartalist perspective fiat currency (money) is a vehicle used by the state to transfer goods and services between the public and private sectors. It is demanded by the private sector because it is the unit of account that clears tax liabilities imposed by the state. Mosler (1997-98) thus refers to fiat currency as tax-driven currency.

to increase their debt as they finance the increased investment and production. The resulting sharp decline in the desire to net save temporarily allowed the US government to realise a budget surplus, but the process was not sustainable (Godley, 1999). The decreasing levels of net savings 'financing' the government surplus increasingly leverage the private sector. Increasing financial fragility accompanies the deteriorating debt to income ratios and the system finally succumbs to the ongoing demand-draining fiscal drag through a slow-down in real activity. A similar trend has occurred in Australia (see Mitchell, 1998b).

4. Buffer Stocks and Full Employment

There is a long history of commodity price stabilisation schemes that employ buffer stocks (Newberry and Stiglitz, 1981). Buffer stocks in labour markets are the current preferred method of overall price stabilisation. It is in this context – the widespread use of unemployment as a buffer stock – that we use the term the NAIRU-buffer stock approach. In this section we show that an alternative buffer stock system, the Job Guarantee model, can deliver radically improved outcomes for the economy.

Mitchell (1998a, 2000a) and Mosler (1997-98) have outlined in detail the inflation control mechanisms using employment as a buffer stock (the JG) compared to the NAIRU approach, which uses unemployment as the buffer stock. We summarise the arguments briefly here. Inflation is defined to be a continuous increase in the price level. There are two considerations: (a) The price pressures upon introduction of the JG; and (b) The changes to the inflation-sensitivity of the economy over a normal business cycle.

The TV–NAIRU Buffer Stock Approach

In a TV-NAIRU economy, rising demand will increase output and employment and a range of wage-wage (relativity) and wage-price (distributional struggle) forces as the product market softens can lead to acceleration in price inflation.[7] In response, the government represses demand. The higher unemployment brings the real income expectations of workers and firms into line with the available real income and the inflation stabilises. In addition to lost output, other real costs are suffered by the nation, including the depreciation of human capital, family breakdowns, increasing crime, and increasing medical costs.

The JG Buffer Stock Approach

The JG proposal was conceived independently by Mitchell (1996, 1998a) and Mosler (1997-98). It has since been developed further by a range of authors listed previously. A recent extended summary of its evolution and features is found in Mitchell and Watts (2001). The JG is also based on the buffer stock principle.[8] Under the JG, the public sector offers a fixed wage job, which we consider to be 'price rule spending', to anyone willing and able to work, thereby establishing and maintaining a buffer stock of employed workers. This buffer stock expands (declines) when private sector activity declines (expands).

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[7] The constant NAIRU has now been abandoned and replaced by time-varying NAIRUs, which have high standard errors. The evolution from cyclically-invariant NAIRU's to the TV-NAIRU has occurred as ad hoc responses to empirical anomalies. The concept is now all but meaningless for policy analysis (Staiger, Stock and Watson, 1997; Chang, 1997; Gordon, 1997).

[8] Mitchell (2000a) discusses the link between the Job Guarantee approach and the agricultural price support schemes like the Wool Floor Price Scheme introduced by the Australian Government in 1970. While generating 'full employment' for wool production, there was an issue of what constituted a reasonable level of output in a time of declining demand. The argument is not relevant when applied to unemployed labour. If there is a price guarantee below the 'prevailing market price' and a buffer stock of working hours constructed to absorb the excess supply at the current market price, then full employment can be generated without tinkering with the 'price structure'. The other problem with commodity buffer stock systems is that they encouraged over-production, which ultimately made matters worse when the scheme was discontinued and the product was dumped onto the market. These objections to do not apply to maintaining a labour buffer stock (see Graham, 1937).

The JG thus fulfills an absorption function to minimise the real costs associated with the flux of the private sector (Berger and Piore, 1980). When private sector employment declines, public sector employment will automatically react and increase its payrolls. The nation always remains fully employed, with only the mix between private and public sector employment fluctuating as it responds to the spending decisions of the private sector. Since the JG wage is open to everyone, it will functionally become the national minimum wage. To avoid disturbing the private sector wage structure and to ensure the JG is consistent with price stability, the JG wage rate should probably be set at the current legal minimum wage, though an initially higher JG wage may be set higher as part of a broader priority for an industry policy.

The JG introduces no relative wage effects and the rising demand *per se* does not necessarily invoke inflationary pressures because firms are likely to increase capacity utilisation to meet the higher sales volumes. Given that the demand impulse is less than required in the TV-NAIRU economy, it is clear that if there were any demand-pull inflation it would be lower under the JG. There are no new problems faced by employers who wish to hire labor to meet the higher sales levels. The rise in demand will stimulate private sector employment growth while reducing JG employment and spending.

However, these demand pressures are unlikely to lead to accelerating inflation. While the JG policy frees wage bargaining from the general threat of unemployment, two factors offset this. First, in professional occupational markets, while any wait unemployment will discipline wage demands, the demand pressures may eventually exhaust this stock and wage-price pressures may develop. With a strong and responsive tertiary education sector skill bottlenecks can be avoided. Second, private firms would still be required to train new workers in job-specific skills in the same way they would in a non-JG economy. However, JG workers are likely to have retained higher levels of skill than those who are forced to succumb to lengthy spells of unemployment. This changes the bargaining environment rather significantly because the firms now have reduced hiring costs. Previously, the same firms would have lowered their hiring standards and provided on-the-job training and vestibule training in tight labour markets. The JG policy thus reduces the 'hysteretic inertia' embodied in the long-term unemployed and allows for a smoother private sector expansion. It is also worth noting that with high long-term unemployment, the excess supply of labour does not pose a very strong threat to wage bargaining (Mitchell, 1987, 1998a). We thus hypothesise that the threat factor under the JG is now higher.

The JG wage provides an in-built inflation control mechanism (Mitchell, 1998a, 2000a). The ratio of JG employment to total employment is called the Buffer Employment Ratio (BER). The BER conditions the overall rate of wage demands. When the BER is high, real wage demands will be correspondingly lower. If inflation exceeds the government's announced target, tighter fiscal policy would be triggered to increase the BER, which entails workers transferring from the inflating sector to the fixed price JG sector. Ultimately this attenuates the inflation spiral. So instead of a buffer stock of unemployed being used to discipline the distributional struggle, the JG policy achieves it via compositional shifts in employment. The BER that results in stable inflation is called the Non-Accelerating-Inflation-Buffer Employment Ratio (NAIBER). It is a full employment steady state JG level, which is dependent on a range of factors including the path of the economy.[9]

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[9] There is an issue about the validity of an unchanging nominal anchor in an inflationary environment. The JG wage would be adjusted in line with productivity growth to avoid changing real relativities. Its viability as a nominal anchor relies on the fiscal authorities reigning in any private wage-price pressures. Clearly, in a hyperinflation environment, the discipline of the JG wage would fail. But in historical experience these circumstances have been rare.

Would the NAIBER will be higher than the NAIRU? The issue has its roots in the fact that a particular level of demand (unemployment) curbs the inflationary process in a NAIRU-world. Clearly, if we introduce a JG scheme, the initial level of JG employment will deliver a higher demand level than inherited under the NAIRU economy. Logically, in a NAIRU-world this should be inflationary. But the JG policy introduces 'loose full employment' for the reasons noted above. In this sense, the inflation restraint exerted via the NAIBER is likely to be more effective than using a NAIRU strategy.

Following Layard (1997, p. 190) we concur that 'if we want a big cut in unemployment, we should focus sharply on those policies which stand a good chance of having a really big effect'.[10] Layard believes that supply-side remedies have achieved little to reduce unemployment. He argues that further cuts in the duration of benefits would only increase employment at the costs of the creation of an underclass with an 'ever-widening inequality of wages'. (1997, p. 192). He now prefers government job creation, which would allow people to reacquire 'work habits … to prove their working capacity … [and to restore] … them to the universe of employable people. This is an investment in Europe's human capital.' (Layard, 1997, p. 192) The JG clearly is the big effect the Australian economy needs to initially clean up the huge stock of unemployed that has persisted since the mid-1970s. The on-going size of the JG pool is likely to be relatively smaller as the economy adjusts to higher levels of activity associated with full employment.

5. Fiscal Policy and the Job Guarantee

The Cost of the Job Guarantee, Budget Deficits and Financial Markets

The JG operates as a built-in stabiliser and as such avoids most of the criticisms of Keynesian fiscal activism and possible problems associated with Lucas-type behaviour.[11] However, the critics of the JG approach also point to financial constraints that they allege would arise from higher budget deficits. For example, Sloan and Wooden (1993, p. 325) referring to the so-called costs of a public service employment schemes say that 'these costs have to be financed in some way, raising the spectre of 'crowding out' and choking off job creation in the private sector.' In this section, we argue that this viewpoint is unfounded. The willingness of government to allow the budget deficit to increase and decrease as is necessary to maintain full employment is essential to the viability of the JG policy.[12] As we outlined above, under a price rule JG policy, market forces determine the size of government spending (the quantity associated with the price rule), as the private sector sends it workers to the JG pool to obtain the funds desired in aggregate by the private sector to pay taxes and net save.

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[10] Layard (1997,p. 2002) concludes that 'Unemployment is one of the major sources of misery in our society… a civilized society should not tolerate our present levels of unemployment…If we seriously want a big cut in unemployment, we should focus sharply on those policies which stand a good change of having a really big effect. It is not true that all polices which are good in general are good for unemployment. There are in fact very few policies where the evidence points to any large unambiguous effect on unemployment and … some widely advocated policies for which there is little clear evidence.' He included changes to 'social security taxes', changes to 'job protection rules', 'productivity improvements', and 'decentralizing wage bargaining' as 'policies whose effects are difficult to forecast". He believes that they are unsuitable policies to create large reductions in unemployment.

[11] Okun (1981, p. 353, footnote 15) devoted merely a footnote to supply side economics, which he termed 'an analysis of the determination of changes in the production function'. From a policy perspective he says that 'their position cannot be taken seriously'. Nordhaus (1983, p. 247) commenting on the divided state of macroeconomics in the 1970s said "Out of the ashes of defeat rises a new phalanx of competing theories, a ragtag collection of discarded ideas from the past as well as unproved fancies for the future … The new phalanx of theorists – monetarists, supply siders, rational expectations, 'deficists', goldbugs, and constitutionalists – have contributed little to resolving the dilemmas of economic policy. They only provide diversion from the real task of economic policymaking'.

[12] Watts and Mitchell (2001) estimate the costs of a JG program to achieve 2 per cent unemployment in Australia. Using a comprehensive revenue-outlay framework, they estimate for 1999(4) that the net budgetary costs lie between $5.5 and $6.4 billion for a full year.

Despite this logic, the use of budget deficits remains controversial since the NAIRU era has been marked, in part, by a vigorous pursuit of budget surpluses. Wray (1998) provides an excellent account of the destructive consequences of this policy. We now carefully deconstruct the financial arguments to show where the negative connotations of budget deficits fail to meet the test of logic and empirical scrutiny.

One of the most damaging analogies in economics is the alleged equivalence between the household budget and the government budget. This has been captured by the government budget constraint framework (GBC) (Ott and Ott, 1965). However, a household, the user of the currency, must finance its spending, *ex ante*, whereas the government, the issuer of the currency, spends first and never has to worry about financing. The government is the source of the funds the private sector requires to pay its taxes and to net save (including the need to maintain transaction balances).

The GBC is used by orthodox economists to analyse the three alleged forms of public finance: (1) Raising taxes; (2) Selling interest-bearing government debt to the private sector (bonds); and (3) Issuing non-interest bearing high powered money (money creation). Various scenarios are constructed to show that either deficits are inflationary, if financed by high-powered money (debt monetisation), or squeeze private sector spending, if financed by debt issue. It should be noted that the GBC is just an *ex post* accounting identity, whereas orthodox economics claim it to be an *ex ante* financial constraint on government spending.

There are many flaws in this argument. For our purposes we note four. First, as issuer of the currency, government spending is inherently constrained by what is offered for sale, not available funds. Second, bonds issues are best thought of as following spending (not preceding it), as they function to support interest rates rather than to provide funding. Third, as a consequence the concept of debt monetisation (money creation to finance spending) is not a distinction from the general case of 'government spending'. Fourth, there is no inevitable link between monetary growth and inflation. We examine each of these flaws starting with the money-inflation myth.

Money and Inflation
The conclusion that monetary growth causes inflation is a replay of the neutrality argument embedded in the Quantity Theory of Money (QTM). Apart from assuming that velocity is constant, the QTM assumes that the economy is already operating at full capacity, so that the aggregate supply curve is vertical. Then the truism that high powered money growth is directly reflected in the inflation rate is clear. But an economy constrained by deficient demand (defined as demand below the full employment level) can respond to a nominal impulse by expanding real output. We refute the inevitability of the association of inflation with monetary growth within relevant capacity utilisation ranges. The experience of the growth phase in the 1990s in both Australia and the United States demonstrates that the real economy responds to increasing nominal demand without inflation.

Reserve Accounting – Why Debt Monetisation Does Not Apply
Deficits/surpluses between the public sector and the private sector (more/less government outflows than inflows) have major implications for what is termed 'system wide liquidity' and promote changes in the reserves in the financial system. See RBA

(1996) for a review the operations of the payments and settlement process. To fully understand the financial analysis that underpins the JG we need to consider the portfolio adjustments that accompany the increase in outside money (deficit increase). The likely transmission mechanisms are as follows: (a) the JG worker receives the difference between the unemployment support and the JG wage and will probably increase his/ her consumption commensurately; (b) some agent along the resulting expenditure trail may desire to increase their holdings of cash; (c) if the increased demand for cash is less than the injection, then eventually there will be an excess cash supply manifested as excess reserves in the Exchange Settlement (ES) Accounts of the commercial banks at the central bank.

Exchanges between ES accounts in settlement sum to zero in terms of the system wide balance and so in net terms the money market cash position is unchanged. In Australia, only transactions between the Commonwealth government and the private sector change the system balance. Government spending and purchases of Commonwealth Government Securities (CGS) by the Reserve Bank of Australia (RBA) add liquidity and taxation and sales of CGS drain liquidity. These transactions influence the cash position of the system on a daily basis and on any one day they can result in a system surplus (deficit) due to the outflow of funds from the official sector being above (below) the funds inflow to the official sector. The system cash position has crucial implications for RBA monetary policy, which targets the level of short-term interest rates. The system balance is an important determinant of the use of OMO by the RBA.

On any day, the transactions between the Commonwealth government and the private sector will not usually net to zero. The RBA pays a default return equal to 25 basis points less than the overnight cash rate on surplus ES accounts. Assume that the government runs a fiscal deficit. This results in a system-wide surplus, after the spending and portfolio adjustment has occurred. The commercial banks will be faced with earning the lower default return on the surplus ES funds. This will put downwards pressure on the cash rate. If the RBA desires to maintain the current cash rate then it must 'drain' this surplus liquidity by selling government debt. Therefore, the role of government debt is not to finance spending but rather to maintain reserves such that a particular cash rate can be defended by the central bank. What would happen if the government sold no securities? The 'penalty' for the government would be a Japan-like zero interest rate, rather than the positive cash rate target. Importantly, any economic ramifications (like inflation or currency depreciation) would be due to the lower interest rate rather than the government deficit.

Accordingly, the concept of 'debt monetisation' is a non sequitur. Once the cash rate target is set, the RBA should only trade CGS if the liquidity changes are required to support this target. Given the RBA cannot really control the reserves then debt monetisation is strictly impossible. Imagine that the RBA traded CGS with the Treasury, which then increased government spending. The excess reserves would force the RBA to sell the same amount of CGS to the private market or allow the cash rate to fall to the support level. This is not 'monetisation' but rather the logic of a interest rate setting monetary policy.

Aspromourgos (2000, p. 149) disputes this analysis and concludes that deficit spending must be financed by the issuing of securities. He constructs his case in terms of the following derived version of the government budget constraint:

$$G + iB = \Delta M^D + T + \Delta B$$
$$\left[(G - T) + iB\right] - \Delta M^D + \Delta B \tag{1}$$

He then chooses to see the issue in terms of whether the government is ''respecting' of private sector preferences for money versus securities (*emphasis in original*)' (Aspromourgos, 2000, p. 150). However, once we cast the argument in terms of the possible outcomes of adjustments by those not content with their portfolio compositions we have moved beyond the more simplistic argument about financial constraints on net government spending.[13]

Of-course, the following equation is equally true in an accounting sense:

$$\left[(G - T) + iB\right] - \Delta M^D = \Delta B + \Delta M^U \tag{2}$$

Here ΔM^U represents the unwanted cash balances and manifest as excess reserves in the banking system earning some support rate from the central bank, which could be zero. ΔM^D will most likely be positive if only because the expansion will increase the transactions demand for cash. The issue then is what are the implications of $\Delta M^U \neq 0$.

Aspromourgos (2000, p. 150) tries to reduce this to an issue of semantics:

> This indicates that to sustain G – in the sense of ensuring its consistency with private sector portfolio preferences in a market economy – government (or its agent, the central bank) must issue interest-bearing securities of some kind, to enable the private sector to release itself from any undesired holdings of outside money. In this sense, the increase in government securities held by the private sector is an essential part of the process of sustaining G. It matters little whether one calls this a case of securities … 'financing' G – although this is surely reasonable language for describing that process: it is the substance that matters. The increase in the private sector's holdings of government securities is an essential part of the process of successfully effecting the government expenditure (emphasis in original).

But this is equivalent to asking 'what if there are no bond issues?' We have already analysed that case. Aspromourgos is suggesting that the private sector ultimately imposes the limit on deficit expansion via its reaction to the portfolio disturbance. The bond issues keep testing the willingness of the private sector to hold government paper (after adjusting their cash holdings) and hence the extent of spending. Ultimately, private agents refuse to hold any more cash or bonds. Then, Aspromourgos (2000, p. 151, n. 13) says 'the unsustainability of the policy would be manifest in an incapacity to keep official interest rates down at desired levels – and probably inflationary pressures – as agents sought simultaneously to move out of money and government securities'. With no debt issues, the interest rates will fall to the RBA support limit. It is then also clear that the private sector can only dispense with unwanted cash balances in the absence of government paper by increasing their consumption levels. This reduced desire to net save would generate a private expansion and reduce the deficit, restoring the portfolio balance at higher private employment levels and a lower JG pool. Whether this generates inflation depends on the ability of the economy to expand real output to meet the rising

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[13] It is clear that only in extraordinary circumstances would the central bank dishonour a government cheque. In that sense, there are no financial constraints on government spending. Accordingly, the debate has to shift to analysing the implications of that spending for the real sector and the portfolio preferences of the private sector. David Gruen from the RBA conceded this point during the Creating Jobs: The Role of Government Conference at the Australian National University.

nominal demand. That is not compromised by the size of the budget deficit. The JG policy does not require the government to push net government spending beyond the capacity of the real economy. More far fetched would be the situation where the private sector refused to sell goods and services to the government in return for government money. Then limits on government spending would occur. But it is difficult to see a profit-seeking firm turning down sales just because the source of spending was a government cheque. To repeat, there would be no desire for government to expand the economy beyond its real limit.

A final related myth concerns the notion that budget surpluses create a cache of money that can be spent later. Government spends by crediting a reserve account. That balance doesn't 'come from anywhere', as, for example, gold coins would have had to come from somewhere. It is accounted for but that is a different issue. Likewise, payments to government reduce reserve balances. Those payments do not 'go anywhere' but are merely accounted for. In the USA situation, we find that when tax payments are made to the government in actual cash, the Federal Reserve generally burns the 'money'. If it really needed the money *per se* surely it would not destroy it. A budget surplus exists only because private income or wealth is reduced.

Implications
  (a) If the RBA ran a Japan-like zero cash rate target, deficit government spending would not require any debt to be issued. The zero interest rate may alter the net desire to save, which would then be reflected in the size of the JG pool.

  (b) The idea of financial crowding out in this environment is meaningless. Deficits add to the net disposable income and thereby net savings of households and/or businesses as they increase reserve balances, while surpluses reduce non government income, reserve balances, and savings in the economy, and goods and services offered for sale (in the first instance of sale to the government) provide the impetus for individuals to work for and trade for the currency in the market place.

  (c) No long-term government paper should be issued. It is not required to finance spending and is unnecessary as a vehicle for reserve maintenance operations outlined above. It supports long-term interest rates and thereby raises the price of investment.

  (d) If the central bank was truly autonomous and constrained the government by refusing to create high powered money (honour the Treasury cheques) then the government would be constrained. In general, we argue that the electorate should periodically sanction policy at the ballot box. The idea of an independent central bank, which could impose harsh monetary policy, without political scrutiny would be an anathema to this objective.

6. A Natural Rate Constraint Imposed by the Balance of Payments?

Some economists point to the current account problems that would accompany the higher demand if all the unemployed were absorbed into paid employment under the JG. Lopez-Gallardo (2000, p. 549) says that advocates of the JG 'do not address the problems associated with the trade deficit that will probably arise when a policy of full employment

in one country is pursued. These limitations may not be significant for the United States; they are, however, of the utmost significance for any other country pursuing a full-employment policy.' However, it is clear that this argument applies to any expansion in national income and cannot be related directly to the JG proposal *per se*. The implication is that the buffer stock of unemployed serves a dual role – to stabilise the inflation rate and to stabilise the current account position.

A further implication of this argument is that the deprivation suffered by those in the buffer stock of unemployed is required to allow those currently in employment to enjoy an array of attractive and relatively cheap imported goods and services.[14] The optimality of this position is not established in economic theory. It is illogical to maintain a costly buffer stock of unemployment in order to keep the exchange rate overvalued. If the exchange rate is overvalued and requires low import demand for stability, then increasing the income levels of those currently unemployed may promote depreciation. Expenditure-reswitching responses to the terms of trade changes would mean that the fully employed economy would be structurally quite different to the present sectoral composition. Consumption patterns would also be different. In this sense, real incomes of those not unemployed (firms and employed workers) would be lower and those of the current unemployed higher.

Economic growth in Australia has long been constrained by the so-called balance of payments constraint. Under a fixed exchange rate, the current account influenced the reserves of the central bank and made domestic expansion dependent on the needs to defend the external parity. This constraint does not apply under a floating exchange rate regime and domestic policy can thus pursue full employment targets with the exchange rate taking the adjustment. Mitchell (1998a, 2000a) analyses the consequence for the open economy of the introduction of a JG policy under flexible exchange rates. A once-off, modest increase in 'low end' import spending is likely to occur because JG workers would have higher disposable incomes. Any depreciation in the exchange rate is likely to shift the distribution of imports away from the low end somewhat and perhaps increase the contribution of net exports to local employment, given the estimates of import and export elasticities (Dwyer and Kent, 1993; and Bullock, Grenville and Heenan, 1993). Mitchell (2000a) has formally tested and rejected various claims that financial markets would react adversely to the initial expansion of the budget deficit. Additionally, international capital now flows more easily to where good returns are expected. It is also likely that a fully employed profitable economy with price stability would be attractive for long-term investors (Mosler, 2001).

6. Conclusion

Most OECD economies have suffered from persistently high unemployment since the mid-1970s. We have argued that the major explanation for this pathology has been a deficiency of demand promoted by inappropriate fiscal and monetary policy. Governments reacted to the onset of inflation with restrictive policy stances summarised by a fetish for budget surpluses. In doing so, they have failed to understand the opportunities that they have as the issuer of the currency.

In this paper, we have presented a framework for analysing these opportunities. In the context of the concern for inflation, we compare two buffer-stock means of stabilising the price level. First, the NAIRU approach, which uses tight fiscal and monetary policy to create a fluctuating buffer stock of unemployed designed to bring the competing

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[14] Cheaper relative to the same imports at full employment with a depreciated exchange rate.

demands over real income into line with actual output. The lesson of the last 25 years in many countries is that the pool has to be large and persistent. Advocates of this approach rarely recognise that the economic and social costs of the policy are huge and dwarf any known costs of microeconomic inefficiencies or inflation. Second, we introduce the Job Guarantee. This is an alternative option available, which, instead of mandating a buffer stock of unemployment to stabilise prices, governments can both more effectively anchor prices and maintain full employment with an open ended, fixed wage buffer stock of employed workers.

The JG approach is a paradigm shift from both traditional Keynesian policies and the NAIRU-buffer stock approach. The difference is a shift from what we term as 'spending on a quantity rule' to 'spending on a price rule'. Under the NAIRU approach, the government spends a given budget quantity at market prices. The private sector then adjusts to spending gaps via unemployment. The JG option represents spending on a price rule because the government offers a fixed wage to anyone willing and able to work, and allows market forces to determine the total quantity of government spending. It is available to the government as the monopoly issuer of fiat currency.

We show that budget deficits are necessary to maintain full employment if the private sector is to pay taxes and has a positive desire to net save. In this regard, the orthodox treatment of the accounting relation termed the government budget constraint as an *ex ante* financial constraint is in error. We show that government spending is only constrained by what real goods and services are offered in return for it. There is no financing requirement. Debt issuance is seen as part of a reserve maintenance operation by the RBA consistent with their monetary policy cash rate targets.

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