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# Creative destruction of 'government as employer of last resort'.

## **Abstract.**

The claim that the unemployed should be allocated to 'government as employer of last resort' schemes (like the WPA in the US in the 1930s) has major flaws. One flaw is the assumption that public sector work of this sort is less inflationary than private sector employment. A second flaw is the idea that WPA type schemes should be separate from existing employers. Once these two flaws are removed, WPA turns into a temporary employment subsidy that creates jobs with existing employers public and private.

A second argument leads to the same 'temporary employment subsidy' conclusion: as unemployment falls, the marginal product of labour falls, till NAIRU is reached. The above subsidy compensates for this fall, and thus reduces NAIRU.

Yet a third argument leads to the same conclusion: this temporary subsidy imitates a perfect labour market, a zero unemployment scenario. Thus this subsidy should facilitate a move towards zero unemployment.

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**Glossary:** NAIRU: Non Accelerating Inflation Rate of Unemployment (i.e., roughly speaking: ‘the level of unemployment at which inflation becomes serious’). WPA: Works Progress Administration. OFP: Other Factors of Production. TES: Temporary Employment Subsidy.

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## **1. Introduction.**

Three main arguments are set out here which lead to the same conclusion: that there is a case for subsidising the unemployed into temporary jobs. A large number of different temporary employment subsidies have been implemented in the developed world in recent decades. The sheer number of different schemes indicates a lack of agreement on the logic behind them. Hopefully this paper sorts out some of the logic and false logic.

The first argument starts by examining the old idea that government should set up ‘make work’ schemes for the unemployed: an idea that has been around for centuries. This idea occurred to Pericles in Ancient Greece. The work houses in Europe and North America in the 17<sup>th</sup> to 19<sup>th</sup> century were based on this sort of idea. And the WPA and similar schemes in the US in the 1930s were similar in nature. In these schemes, government acts as employer of last resort. The more active advocates of this idea in the last decade or so include Mosler (1997), Mitchell (2001 & 1998) and Wray (1998 & 1999).

This idea has two basic elements. The first is that the work concerned is public sector in nature (e.g. weeding flower beds in a public park) rather than private or commercial sector. The second is that these schemes are separate from existing or regular public sector employers.

The flaws in this idea set out below revolve around the other factors of production (OFP) employed alongside those in WPA type jobs. And there are essentially two 'OFP arguments' which are briefly as follows.

i) If WPA type schemes involve little or no OFP, then output will be hopeless. On the other hand if OFP ratios rise to anywhere near those that obtain with normal or regular employers, then WPA schemes amount to much the same thing as a normal employer. The distinction between the two types of employer then becomes meaningless. This suggests that, if WPA makes any sense, those concerned should be allocated to existing public sector employers not to WPA type schemes.

ii) The advocates of WPA type schemes normally claim that raising employment this way is not inflationary because no increase in demand is required. This claim is based on the implicit assumption that no OFP need be withdrawn from the private sector to make WPA work. It is shown that when this false assumption is rectified, there is little difference in the inflationary impact as between public and private sector. Thus there is little reason to confine WPA (or the employment subsidy that evolves out of it) to the public sector.

Rectifying the above two flaws in WPA type schemes turns the latter into a system where the unemployed are subsidised into temporary jobs with existing employers, public and private. The latter system will be called Temporary Employment Subsidy (TES).

As mentioned above, three main arguments for TES are set out here. The above ‘WPA rectifying’ argument is the first. As to the second and third, these have been set out before. Both are in Musgrave 1991 and 2006. Thus they are set out here only in abbreviated form, and appear below after the heading ‘The second main argument: the declining marginal product of labour.’

The reasons for repeating these two latter arguments are, first that together with the above first argument, the three form a ‘whole’: that is, as pointed out above, the three lead to the same conclusion.

Second, since 1991, plenty of labour market research has been done, and it is of relevance to show how this research supports the 1991 arguments.

As for terminology, WPA type schemes will be referred to below simply as ‘WPA’. Occasionally the original US 1930s WPA is referred to, and it will be made obvious when this is done. The phrase ‘unemployment benefit’ refers to all forms of social security received by the unemployed through reason of being unemployed.

***The ‘at NAIRU’ assumption.*** Where unemployment is above NAIRU, the best remedy is obviously to raise demand, rather than use WPA or TES (or any other measure, come to that). That is, WPA and TES come into their own in taking unemployment below NAIRU (or ‘reducing NAIRU’, to put it another way). Thus the discussion below is on the basis that unemployment is at NAIRU. But this is not to suggest that WPA or TES are totally unsuitable for dealing with ‘above NAIRU’ unemployment. Indeed the above trio of authors (Mosler, Mitchell and Wray) advocate WPA as being suitable for dealing with this unemployment where normal employment is not available, e.g. in a recession. While objections are obviously

raised here to WPA, no objections are raised in principle to an employment subsidy aimed at dealing with both 'above NAIRU' and 'below NAIRU' unemployment.

To put the above paragraph another way, the ideal is to raise demand to deal with 'above NAIRU unemployment'. But we live in a 'non-ideal' world. That is governments cannot raise demand at the flick of a switch and by a precise amount. Moreover, no one knows with any certainty what level of unemployment corresponds to NAIRU. It is thus desirable to have a form of employment that aims to reduce both 'above NAIRU' and 'below NAIRU' unemployment, and this is exactly what WPA and TES do. (Incidentally, any readers who do not like the phrase 'below NAIRU unemployment', or the fact that no one is sure what level of unemployment corresponds to NAIRU, please see note 1 at the end).

A second reason for the 'at NAIRU' assumption is that creating jobs when unemployment is at or below NAIRU is more difficult than when unemployment is above NAIRU. The objective here is to solve a difficult problem, not an easy one.

Third, the above trio of authors claim that WPA works at NAIRU, a scenario where WPA faces its sternest test. It is shown below that WPA does not pass this test, at least not with flying colours.

## **2. The Flaws in WPA.**

The reason normally given by WPA advocates for confining WPA to the public sector is that employment can be created in this sector with no increase in demand and hence no additional inflation. Thus it would seem that there is no limit to the number of jobs that can be created by WPA. Indeed some of the advocates of WPA

(the above three in particular) claim it can bring more or less a hundred per cent full employment. However, there are flaws in this argument, as follows.

WPA employees are bound to be similar if not identical to the unemployed: relatively unskilled. Obviously there are some skills amongst the unemployed – even when unemployment is low (i.e. at or near NAIRU). But NAIRU is almost by definition the level of unemployment at which finding the right skill at the right time at the right place is difficult for employers.

Also those doing WPA work will turn over far more quickly than employees working for normal or regular employers. Indeed, assuming WPA employees search for normal employment with the same effort as when unemployed, then these employees will turn over at much the same rate as the unemployed. Moreover, WPA employees with skills relevant to the WPA project they happen to work on will also turnover quickly, and in many cases will be replaced with people who, while skilled, do not have relevant skills.

Unskilled employees (never mind rapidly turning over unskilled employees) need permanent skilled supervisory labour – and other factors of production: materials and equipment.

If WPA employs no OFP, output will be pathetic. If small amounts of OFP are employed, output will still be pathetic. On the other hand if OFP rises to anywhere near the level that obtains with regular employers, private and public, then WPA becomes little different to a regular public sector employer! The distinction between WPA and normal public sector employers then becomes meaningless. WPA is in check mate. (Incidentally, the above theoretical reasons for supposing that output on

WPA schemes tends to be low is illustrated by the nickname that the 1930s WPA acquired: we piddle around.)

Also, there is an obvious economic logic in having OFP ratios on WPA roughly similar to those that exist with normal employers, for any given product or type of output. Economists will know the reasons for this. But to illustrate for non economists, imagine two trench digging teams. One team uses bare hands to dig their trench. The other uses earth moving equipment, picks, shovels, etc. Now it is pretty obvious that the combined output from the two teams can be improved if the well equipped team gives the 'bare hands' team some picks and shovels, and perhaps even one mechanical digger. (In fact it is not difficult to prove that the combined output of the two teams is maximised when shovels, diggers and picks are shared equally between the two teams.)

In short, whatever a WPA project does, there is little point in it not having something like the usual OFP ratios. (Incidentally, a 'bare hands trench digging team' is a nice, if somewhat extreme illustration of the hopeless output, alluded to from the outset of this paper, where WPA has little or no OFP.)

Conclusion so far: WPA with no OFP makes no sense, and WPA with normal OFP ratios makes no sense either. WPA is 'stuck between a rock and a hard place'. This suggests that WPA employees, if WPA makes any sense at all, should be allocated to existing public sector employers, not to WPA. (Incidentally, any readers who think that some original 1930s WPA schemes were reasonably efficient, and thus that reincarnations of the idea today, nearly a century later, can be equally efficient, please see Note 2 at the end.)



### **3. Where does OFP come from?**

Assuming that WPA does employ some OFP, this will include skilled supervisory labour. This labour cannot come from the ranks of the unemployed and for the following reason. If a set of unemployed individuals change from 'unemployed job seekers' to 'permanently employed WPA supervisors', then aggregate labour supply to the normal or regular jobs market is reduced, which is inflationary. Therefore this skilled supervisory labour must be withdrawn from the regular employed workforce.

Moreover, the 'non human OFP' (i.e. materials and equipment) employed alongside WPA labour cannot be obtained simply by placing orders for materials and equipment with the private sector. This is because any extra demands placed on this sector will be inflationary (remember the above NAIRU assumption).

In short, demand stemming from orders for WPA materials and equipment has to displace other demand: it cannot be additional to other demand.

The relevance of these points will not be immediately obvious, but the relevance will become apparent in the next section.

### **4. The similarities of public and private sectors.**

Advocates of WPA claim that increasing demand is inflationary, and this demand stems from the private sector. But this claim is based on the 'other things being equal' assumption. In particular it is based on the assumption that the public sector is not scaled back to release resources for the private sector (OFP in particular). It is also based on the assumption that additional jobs resulting from this additional demand involve more or less normal OFP ratios.

Well exactly the same criticism can be made of the public sector! That is, increasing the number of public sector WPA employees will be inflationary, on the assumption that the private sector is not scaled back so as to release OFPs and on the assumption that the work concerned involves more or less normal OFP ratios (because as explained in the above section, any OFP purchased for WPA schemes will have an inflationary effect).

In fact, the only fair comparison between the two sectors would involve expanding parts of the two sectors that employed all factors of production in the same ratio. And this, almost by definition, will result in the same OFP shortage for the economy as a whole, which in turn will result in the same inflationary effect. This suggests that as far as WPA goes, there is no reason to treat the public sector any different from the private sector. That is, there is no reason to confine WPA to the public sector.

And there is a further reason for private sector involvement. This is that the private sector is much better at employing unskilled labour than the public sector.

Conclusion: it looks as though WPA labour should be allocated to existing employers public and private. In short, WPA with defects removed turns into a form of temporary employment subsidy with existing employers, public and private – TES.

Incidentally, there is an inherent subsidy element in WPA in that WPA ‘employers’ do not extract money from those consuming the relevant output in order to pay WPA employees. As to whether TES employees are allocated to employers for free, or alternatively, whether employers contribute to TES employees’ wages, this is considered below.

## **5. Does TES reduce NAIRU?**

To summarise so far, it has been argued that WPA can in theory bring almost one hundred per cent full employment. But this is only achieved with very unproductive forms of work. Thus it would be better to allocate those concerned to existing employers (public and private).

This raises the question as to whether the NAIRU reducing effect of WPA is preserved in making the change from WPA to TES. The answer is 'yes – at least to some extent'. The NAIRU reducing effect of WPA stems from the fact that involves little or no OFP – that is, WPA increases the ratio of 'unskilled labour to OFP' for the economy as a whole.

Now this characteristic is very much inherent in TES in that TES labour is allocated to employers at a subsidised rate, which would induce employers to expand the number of relatively unskilled people employed (which includes TES people) relative to the amount of OFP they utilise. This is not to suggest that the unemployment reducing effects of TES would be as dramatic as WPA. On the other hand TES work is bound to be more productive than WPA work.

Incidentally, some readers will notice a problem, namely the difficulty of distinguishing between employees who are supposed to be TES subsidised, and those who are not. This problem is addressed a few paragraphs hence.

## **6. TES increases the value of money (or reduces inflation).**

TES works via several channels or 'cause effect chains'. First, there is the NAIRU reducing effect dealt with above. Second, as WPA advocates rightly point out, WPA

tends to stabilise aggregate demand, (just like unemployment benefits). And TES has the same characteristic (assuming the number of TES employees rises as unemployment rises). But there is a third way in which TES reduces unemployment, as follows.

Where government allocates the unemployed to employers at a subsidised rate, this reduces employers' unit costs. If competitive forces are working, this in turn will cause employers to cut prices (or raise prices more slowly than they otherwise would have). This in turn means that demand in real terms will be higher than it otherwise would have been (assuming constant demand in money terms, for the sake of simplicity). And more aggregate demand means less unemployment.

This characteristic of TES is of course not unique to TES: the same point probably applies to most employment subsidies that expand as unemployment rises. But the characteristic is worth a mention.

## **7. Is the fact that a country issues its own currency relevant? No.**

This section is a diversion from the main argument and is concerned with a claim made for WPA by the above trio of authors over the last decade or so.

The advocates of WPA never seemed to refer to currencies till the above mentioned trio appeared on the scene. These three authors claim that a country which issues its own currency has options not available to countries in a common currency area, like the Euro zone. Moreover, they claim that this gives 'own currency issuing' countries the freedom to spend large sums on WPA.

An 'own currency issuer' can certainly effect more stimulation in a recession than some common currency countries. But the freedoms that come from issuing one's own currency are not an argument specifically for WPA. The existence of these freedoms is a good reason to make maximum use of these freedoms, and to stimulate the economy concerned as far as is possible without exacerbating inflation. Exactly which channels this stimulation ought to flow through is an entirely separate issue. WPA and TES are only two of the possible channels. Thus being an 'own currency issuer' has little relevance to the question as to which are the best employment creating measures. Indeed, the above authors themselves advocate significant spending on employment measures other than WPA.

Sawyer (2005, p.10) makes a very similar point to that made in the above paragraph, namely that WPA has little to do with the fact that a country issues its own currency.

## **8. The second main argument: the declining marginal product of labour.**

As pointed out at the outset, the two 'pro TES' arguments set out in Musgrave (1991) are now introduced. The first '1991' argument is thus.

Given high unemployment, it is easy to find more or less any skill required on any local labour market. But as unemployment falls towards NAIRU the quality of dole queue labour falls, and finding the right skills becomes more difficult. Put another way, the suitability of the unemployed for available vacancies falls.

This means that each succeeding person hired as unemployment falls, tends to be less and less productive. Or to use technical economics phraseology, the marginal net

revenue product of labour falls. And when the output or 'net revenue product' of this labour falls to somewhere around the union wage or minimum wage or unemployment benefit, employers will, instead of getting extra labour from the ranks of the unemployed, will tend to poach labour from each other, and that spells inflation. NAIRU has been reached. (Note that this reason for the declining marginal product of labour is completely different from the well known micro economic cause of the same phenomenon: where an employer raises numbers employed given fixed amounts of OFP.)

However the unsuitability of most unemployed individuals is temporary: that is they find jobs sooner or later where their suitability for some job or other is sufficient to cover the minimum wage (and possibly cover much more than the minimum wage).

There would thus on the face of it seem to be a solution to this problem, namely to hire out the unemployed to employers at a subsidised rate or for free, and on a temporary basis. This would compensate employers for the above unsuitability, and as a result, NAIRU ought to decline. Now, this should ring a bell. This sounds very much like TES does it not?

Put another way, this 'declining marginal product of labour' point is an additional reason for thinking that TES makes sense.

Incidentally, the above mentioned poaching of each other's labour that employers increasingly engage in as unemployment falls is not necessarily conscious. That is, when a vacancy which involves any significant skill is advertised, given a general labour shortage, those applying for the vacancy are less likely to come from the ranks of the unemployed than in a recession. This is because of the poor quality of labour that makes up these ranks given low unemployment.

## **9. The third main argument: free labour markets.**

The second 1991 argument was thus. Minimum wage rules, union wage rates and unemployment benefits are not free market phenomena. In a totally free labour market (i.e. in the absence of the latter three phenomena) the unemployed would to a greater extent than where these non free market policies operate, tend to get relatively low paid temporary work on becoming unemployed, instead of doing no work, while engaged in job searching. Indeed, the evidence is that this actually happens: that is, in countries where social provision is weak, the unemployed have a greater tendency to get these temporary low paid jobs than where social provision is strong (Werner (1998)).

Now this should ring a bell again. Temporary and relatively unproductive work is more or less what TES is. Put another way, TES more or less IS the free market with the difference that while in a totally free labour market some of those doing temporary and not desperately productive jobs might get starvation wages, under TES, the state guarantees a socially acceptable take home pay.

And finally, in a totally free and perfectly functioning labour market (a very theoretical construct, of course!) there is almost by definition no unemployment. TES is a movement of a sort towards a perfect labour market, therefore TES ought to reduce NAIRU.

## **10. Phelps, marginal subsidies and intra marginal subsidies.**

Subsidies come in two basic forms. First there are marginal subsidies: those where the only units subsidised are the additional units brought into production or bought because of the subsidy. Second, there are subsidies where all relevant units are subsidised (e.g. all youths, all apples, all cars, etc). This latter type of subsidy is sometimes called an intra marginal subsidy, and this phrase is used here.

TES is a marginal subsidy; moreover, it is effectively a marginal subsidy of low paid labour. The nearest equivalent intra-marginal subsidy here would probably be a subsidy of all unskilled labour, or all low paid labour. Indeed Phelps (1997) advocates a subsidy of all low paid labour. This raises the question as to why TES is better than the Phelps subsidy. Part of the answer is that under TES, the price paid by employers for each individual employee is more accurately related to each employee's actual worth or potential output, which in turn induces employers to make better use of each employee. Or put another way, under the Phelps subsidy, the majority of those subsidised do not need subsidising, which is an inducement for employers to make poor use of such employees.

The latter characteristic of intra marginal subsidies (subsidising large numbers of units which do not need subsidising) appears to involve a large waste of taxpayers' money. However this apparent waste is not all a waste of real resources: part of this wastage is simply money going round in circles. It is money taken from taxpayer/consumers to finance the 'waste', which in turn reduces the cost of labour for employers, which in turn reduces the cost of products bought by taxpayer/consumers. In effect, taxpayer/consumers are transferring money from their



left hand pocket to their right hand pocket! This type of cost will be called 'taxpayer cost' below.

In comparing the two subsidies, the important elements to quantify are the effects on real GDP. Unfortunately only around fifty percent of economists and about one percent of politicians have grasped the distinction between the two forms of cost: real costs and taxpayer costs.

The elements to quantify in order to get at the real effects on GDP are, 1, the administration costs of collecting the tax needed to finance the subsidies (TES does better than Phelps here). 2, there is the cost of administering the subsidies. (Only those with experience of administering subsidies are qualified to pass judgement here). 3, there is 'allocative efficiency', that is the inducement for employers to make good use of employees. (TES, again, does better than Phelps here.)

Incidentally, on the subject of administering TES, private temporary employment agencies manage to arrange commercially viable 'one day jobs' and 'one week jobs'. For reasons given in the next section, TES jobs would last on average about two months; it should be within the competence of public sector employment agencies to organise jobs lasting about this period of time without excessive administration costs.

## **11. Fraud and the rules governing TES.**

There would be an obvious temptation for employers to try to have some employees who they would have employed anyway subsidised by TES. Various measures would be needed to minimise such abuse.

Some measures are set out below, none of them perfect. However, this imperfection must be set against the defects that exist under the alternative to TES: unemployment benefits. It is not exactly a rarity for the unemployed while still in receipt of benefits to work for cash for rogue employers, or to act as entrepreneurs, that is do casual work on their own account.

The necessary anti-fraud measures are simple, at least in principle: a series of rules are required that make employers and TES people behave more or less as they would in a totally free labour market. There are numerous possible sets of rules that would induce something approximating free market behaviour. The following are just a few suggestions.

In a totally free labour market, temporary labour has a habit of disappearing for another job at a more or less random point in time (very roughly, two months after getting the temporary job on average). Thus if a rule of the game is that the time TES employees stay with a given employer is limited to a few months, this would imitate the market.

A possible and more realistic imitation would involve removing TES labour from employers at random moments in time. And another possibility, which would be an even more sophisticated imitation of the free market, would be for public employment agencies to withdraw a TES employee from the current employer where it appeared that some other employer was prepared to bid more for the services or skills of the relevant employee.

An important side effect of withdrawing TES employees from their existing employer after a fixed or random period of time is that this prevents employers putting employees onto the subsidy where the subsidy is not required. If there is one thing

employers treasure above all else, it is their most valuable employees. Employers will not put their more valuable employees onto the TES subsidy because that means losing them! In addition, TES employees get relatively low pay, and valuable employees are not normally happy with low pay.

Another obvious fraud would involve an employer putting an employee onto TES until the employee was removed by those running the TES system, and then hiring the employee soon afterwards as a normal employee. However there is an easy counter measure: outlaw such 're-hires' – or make the relevant employer repay a few month's worth of subsidy.

Indeed, this latter rule effectively makes TES work as an introduction subsidy. That is, TES in this mode operates in line with a policy normally adopted by private employment agencies: if the new employee proves their worth, i.e. stays with the relevant firm more than some minimum period of time, then the firm pays the employment agency a fee. In contrast, if the employee is not up to the job, and leaves soon after starting the job, then no fee, or a reduced fee is paid.

In addition to working more or less automatically as an introduction subsidy, it would be easy to make TES work as a redundancy delaying subsidy as well. Just one additional rule is needed along the lines of: 'employers can put existing employees onto TES'.

Another simple anti fraud measure would be to limit the number of TES people with a given employer to small proportion of the employer's workforce.

## **12. The workfare and other elements in TES are variable.**

Some advocates of WPA claim that what might be called the ‘workfare’ sanction is imposed right at the start of each person’s period of unemployment – i.e. unemployment benefit is abolished altogether and WPA work is offered instead as from day one of each person’s period of unemployment. Those refusing this work are not counted as unemployed, thus unemployment vanishes.

A weakness in this extreme version is that in some cases it would be difficult to offer any meaningful work: for example in a small isolated town, where a dominant employer went bust (as pointed out by Sawyer (2003) and Musgrave (1991)).

Some form of workfare sanction is as inherent to TES as it is to WPA, and an alternative to the above extreme version is to allow the unemployed a few weeks of unemployment during which to find suitable alternative employment, and only impose the workfare sanction after this period.

Incidentally, and harking back to Sawyer’s point about small isolated towns, this point can be put in more general terms (as Sawyer rightly does), and as follows. The small isolated town form of unemployment is an example of what is often called ‘structural unemployment’. This is particularly high levels of unemployment amongst particular clearly identifiable groups, e.g. youths, those in particular geographical areas: large areas or, as in the case of isolated towns, small areas.

As Sawyer rightly points out, WPA does not deal well with structural unemployment. And nor, it must be admitted does TES. That is, TES comes into its own in dealing with frictional unemployment.

### **13. TES and WPA can coexist.**

WPA advocates will doubtless criticise TES on the grounds that the latter does not promise one hundred per cent full employment. The first answer to this is that, as already mentioned, WPA only achieves one hundred per cent full employment by creating very unproductive work (and more on this below).

Second, there is nothing to stop the two systems running side by side. That is, the unemployed could be allocated to existing employers where the latter can make use of those concerned. That would doubtless not abolish unemployment. But if WPA enthusiasts wanted to then put the remaining unemployed (or most of them) onto zero or low OFP WPA, that would be possible. However, it is debatable as to whether this is worthwhile and for the following reasons.

It is widely accepted in economics that if a factor of production (labour or any other factor) is available to employers at \$x a week per unit, employers will expand employment of that factor up to the point where the least productive unit (or 'marginal' unit) yields a revenue, net of costs, of \$x a week. Or to put that in something nearer ordinary English, employers expand production up to the point where the value of what the least productive unit produces is \$x a week.

Now suppose a country takes the view that having people work where their output is less than \$x a week is not worthwhile, such a country would charge TES people to employers at \$x a week. But having taken the above view, WPA is then pointless because the output of WPA people would almost certainly be less than \$x a week!

Indeed, there are good arguments for allocating TES employees for free – in which case the output of the least productive TES employee would be zero. In this scenario,

the output of WPA employees would tend to be negative. And this point rather looks like the final nail in the WPA coffin. That is, advocates of WPA (the above trio included) cite a variety of worthy public sector type activities that the unemployed could do: picking up litter, painting pensioners' houses, etc. However, where WPA ran alongside TES where employees are allocated for free, it looks as though the output of such WPA employees would be negative: that is, the value of what they produced would be less than the cost of the relevant OFPs.

Of course it is possible that negative output or 'wealth destroying' employment can be justified on some sort of social or work experience grounds. But this is a significant departure from 'work' in the normal sense of the word: an activity that produces wealth. Moreover, if we want negative output WPA work, why not have negative output TES work as well? That is, as distinct from allocating TES people for free, why not actually pay employers for taking on TES people?

Something along these lines took place in Victorian times in that some apprentices had to pay for the privilege of being employed for their first year.

A third weakness in any claims by WPA enthusiasts to the effect that TES is not guaranteed to bring one hundred percent full employment is that 'full employment' is what economists sometimes call an 'intermediate objective', and intermediate objectives are frowned on in economics, and for the following reasons.

The basic or fundamental economic objective is maximising output per hour (within environmental constraints). Or more accurately, the objective is to maximise 'output per hour minus disutility of work'. Or in plain English, the objective is to maximise output per hour on the assumption that people have some sort of freedom to choose

which jobs they do, in particular, freedom to reject jobs where, while output per hour may be impressive, this is only achieved by the unpleasant nature of the work.

In contrast, to the above basic objective, there are several popular ‘intermediate objectives’ like the balance of payments, full employment, and so on. Certainly improving a country’s balance of payments, or employment level, other things being equal, is desirable. But the ‘other things being equal’ assumption is a big assumption: one that advocates of intermediate objectives do not normally bother examining in much detail.

In the case of employment levels, it could easily be that GDP is maximised where employment is a little below a hundred percent rather than at a hundred percent of the workforce. That is, it could be that rather than do jobs where output is near zero, a portion of the unemployed are better ‘employed’ job searching.

Or put it yet another way, an employment level of ninety eight percent could be Pareto efficient as compared to a ninety nine or hundred percent employment level.

Finally, having argued that WPA is pointless on ‘output’ grounds, it should be said that there is one remaining possible justification for ultra low or negative output WPA: such work does help enforce the ‘workfare sanction’, and the indirect effects of this could boost national output: a point which is now considered.

#### **14. How productive would TES jobs be?**

Some of the most productive jobs created by TES (or WPA) stem from the ‘workfare’ element. That is, the mere existence of unemployment benefit is an inducement for some people, including some with significant skills, to live on benefits rather than

take skilled and productive jobs. Thus if benefits are restricted, and TES work is offered instead, a number of these productive jobs would be created.

Another important point when trying to quantify the output of TES jobs is as follows. Traditional microeconomics teaches that, to over simplify, the price paid for something (e.g. labour) is a measure of its worth (or in the case of labour, a measure of its output). However, this idea breaks down, particularly in a recession and particularly with what might be called the sort of marginal labour that TES is concerned with.

To illustrate, in a recession the reluctance of employers or consumers to pay anything for the services of those who are unemployed because of the recession, does not prove that the potential output of the latter people is worthless. That is, the inability or reluctance to pay for such output stems from a lack of money, or from a perceived lack of money by employers and consumers: come the end of the recession, consumers revert to paying for the output of these unemployed individuals.

Now let us assume these unemployed individuals find work via TES, and that TES employees are charged to employers at \$x a week.

Conventional micro economics says that the worth of the least productive TES employee in this scenario will be \$x a week. But for reasons just set out above, this is a mistake: output of the marginal or least productive is arguably worth more than \$x a week.

In contrast to the above recessionary scenario, the value of the output of TES employees when unemployment is at NAIRU or below would not be as much. This is



because at or below NAIRU, TES employees would not be as well suited to their jobs as in recessions.

## **15. TES and the UK's New Deal.**

When advocating any idea, it is relevant to show how the idea relates to, or improves on existing ideas.

The UK's New Deal is a complicated and constantly changing system, which incorporates training, help for the disabled, and so on. But the main employment subsidy element in the New Deal consists of subsidising those who have been unemployed for about six months into work for a few months. This latter characteristic is obviously included in TES. Put another way, some countries, like the UK, want to spend minimal amounts on active labour market policy. Arguably it makes sense for such countries to confine employment subsidy money to the most disadvantaged section of the workforce. I.e. the employment subsidy element in the New Deal amounts to 'TES confined to the most disadvantaged' (or the most recalcitrant, depending on your point of view).

As to the training element in the New Deal, there are good reasons for thinking that this may be a waste of time and that TES is better. Reason is that there is a wealth of evidence from around Europe that the training typically offered as an alternative to subsidised work on schemes like the New Deal results in a poorer subsequent employment record for those involved than subsidised work. Or to put that in blunt language, rather a large proportion of training schemes are so useless that learning by

doing is better. See Calmfors, (2002); Bogdanor (2004); Bolvig, (2003); and Gerfin (2002a and 2002b).

Also Booth, (2000) found evidence that those prepared to do temporary jobs fared better in their subsequent employment history than those not prepared to do such jobs. This of course does not support the above 'TES versus training' point, but it is evidence that supports temporary work in general (and hence TES).

Finally, having said that the New Deal subsidy is essentially TES confined to the most needy, a similar point applies to large numbers of employment subsidies in countries other than the UK. That is, assuming the logic behind TES is valid, then this so far theoretical construct 'TES' will provide some rationale for various other employment subsidies in other countries. Plus it will indicate faults in these latter subsidies.

## **16. Conclusion – science likes simplicity.**

Science likes simple ideas or equations that explain a lot, or which incorporate existing ideas.  $E=MC^2$  is perhaps the most famous example. Put another way, science likes to hit several birds with one stone. TES does well on the 'bird hitting' criterion.

Some complicated reasoning above has lead to a very simple conclusion, namely that NAIRU can be reduced by subsidising the unemployed into work with any employer willing to take them for the time during which jobless individuals would otherwise be unemployed. Obviously various conditions are attached to this subsidy, for example, the employee stays with a given employer for a limited period. The various 'birds' which TES hits are as follows.

First, TES incorporates two merits of WPA: 1, TES counters frictional unemployment and 2, the workfare element in TES counters the temptation for the voluntarily unemployed to pose as involuntarily unemployed.

Second, TES does not have one merit of WPA namely that the latter can guarantee almost one hundred percent full employment. On the other hand, the latter merit is only achieved by creating very unproductive employment. But then again, very unproductive WPA work does have the merit that it helps enforce the workfare sanction: that is, WPA in this mode forms a 'work test'. If this is regarded as a significant merit, WPA can perfectly well be implemented alongside TES: that way, the advantages of both systems are obtained.

Third, TES works as an introduction subsidy.

Fourth, it could easily be made to work as a redundancy delaying system.

Fifth, as regards the UK's New Deal, the employment subsidy element in the New Deal is essentially TES confined (for perceived want of cash) to the most needy unemployed individuals.

Sixth, TES has 'aggregate demand stabilising' characteristics in much the same way as unemployment benefit or WPA. These characteristics could easily be enhanced in a recession, in much the same way as the Obama administration in the US made unemployment benefits in the US more generous in the 2008-10 recession.

Seventh, the Phelps subsidy of all low paid labour is an intra-marginal subsidy, and TES is essentially the marginal equivalent of it. TES is better than the Phelps subsidy unless the administration costs of TES are so much higher than the Phelps subsidy that this outweighs the better GDP increasing characteristics of TES.

**Note 1: below NAIRU unemployment.** Phrases like ‘reducing below NAIRU unemployment’ are arguably a contradiction in terms in that taking unemployment below NAIRU is supposedly not possible (without unacceptable inflation).

However, when any measure is considered which aims to reduce NAIRU (like WPA or TES), there are then two NAIRUs: NAIRU without the measure in place, and NAIRU with the measure in place. The phrase ‘below NAIRU unemployment’ refers above to the amount of unemployment between these two NAIRUs.

The concept ‘NAIRU’ is central to the above arguments, so does the fact that no one really knows for sure what level of unemployment corresponds to NAIRU weaken the argument? The answer is ‘no’, and for the following reasons.

First, it is almost inconceivable that there is no relationship between employment levels and inflation. That is, as aggregate demand rises, employment will rise; and at some point, demand will reach the point where the economy concerned cannot supply the requisite volume of goods and services demanded. And when demand exceeds supply, we all know what happens: prices rise.

Second, no one knows what the square root of minus one is, but it keeps cropping up in maths. Thus the square root of minus one is clearly part of the universe we live in. It is thus perfectly valid to insert a symbol for this ‘unknown’ in equations. To put that in more general terms, an entire branch of maths, namely algebra, is based on the notion that a large amount of useful work can be done on variables and the relationships between them without knowing or specifying the value of those variables.

Or take another example. Suppose we knew that atmospheric pressure declined with increased altitude, but not by how much. In this scenario, it would be sensible when doing weather forecasts to make some sort of assumption about the above decline in atmospheric pressure, rather than assume no such decline.

***Note 2 : some 1930s WPA schemes were efficient, so why are they criticised above?***

Kesselman (1978) cited some evidence that productivity on some 1930s WPA schemes was at least 75 per cent that of comparable private sector employers. This might tempt some readers to conclude that reincarnations of the idea today, nearly a century later could be equally efficient.

The flaw in this argument is that in the 1930s unemployment was at catastrophically high levels, a situation where it is easy to find skilled labour, and where labour turnover on WPA will be relatively slow. In contrast, the main text above addresses the more difficult question, namely how to make WPA work at NAIRU, a situation where skilled labour is NOT readily available, and where labour turnover is faster.

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