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ANALYSIS OF MONEY, DEBT AND EMPLOYMENT

Ralph S. Musgrave

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Ralph S. Musgrave
United Kingdom

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Introduction

This book consists of a series of working papers written by the author and published by the Munich Personal RePEc Archive between 2006 and 2011 inclusive. The extent to which the ideas in each paper have subsequently been revised or updated by the author in later publications varies from paper to paper. This is a rough guide to how much revision there has been.

Ch 1. Not revised in any subsequent publication.

Ch 2. The ideas here were subsequently set out in a paper entitled "An Employer of Last Resort Scheme which Resembles a Free Labour Market" published in the Journal of Economics and Political Economy. The basic ideas in the two works are not much different. [Retrieved from].

Ch 3. The author's views on this topic have not changed much since publication, but there is a more up to date version of the author's ideas in a paper entitled "The arguments for a permanent zero interest rate" published by Advances in Social Sciences Research Journal. [Retrieved from].

Ch 4. Not revised in any subsequent publication.

Ch 5. Not revised in any subsequent publication.

Ch 6. This deals with the same idea as Ch 2 above, and the same applies, namely that there is a subsequently published work in the Journal of Economics and Political Economy.

1. Consolidation causes little austerity

There is a widespread view that reducing national debts and deficits, or "consolidating" them, causes austerity or would hinder the recovery. The reality is that reducing structural debts and deficits and "stimulus debts" is easily done without any significant deflationary effects. In contrast, stimulus deficits cannot be reduced in that they are required to deal with recessions, thought they can perfectly well accumulate as extra monetary base rather than as extra debt.

Money for the above debt and deficit reduction can be obtained from raised taxes and/or public spending cuts, while making good the deflationary effect of the latter with quantitative easing. As long as the deflationary effect of the former equals the stimulatory effect of the latter, there is little net effect on GDP, aggregate employment and so on. Meanwhile debts or deficits are reduced.

There is a widespread view that reducing national debts and deficits, or "consolidating" them, causes austerity or would hinder the recovery. This view often takes the form of claims to the effect that deficits and debts must be reduced, but not before the recovery takes hold. Most readers will probably have seen innumerable examples of this sort of claim. But for the benefit those who have not, a few examples are: OECD (2010), Rivlin (2010:3), Harding (2011) or Ostry (2010A & 2010B).

Some readers may be puzzled by the fact that three out of the above five works come from two reputable international organisations: the IMF and OECD. However this paper is nowhere near the first to suggest that these two organisations have a less than full grasp of debts and deficits, to put it politely. Prof. William

Mitchell, for example, has been a constant critic of these two organisations (e.g. Mitchell, 2011).

The conventional "consolidation causes austerity" argument is usually to the effect that taxes must be collected (and/or public spending cut) in order to obtain the money with which to repay debts or reduce deficits. And tax increases or public spending cuts are deflationary, therefor, so the argument goes, consolidation is deflationary. The purpose of this paper is to show that the latter argument is badly flawed: that is, consolidation and a country's stance on the "stimulus

– deflation" scale are essentially independent of each other.

Various simplifying assumptions are made below, as follows.

ii) The argument below is concerned only with countries which issue their own currencies. That is, while the arguments apply to the Eurozone as a whole, individual countries that are part of a common currency system, like the Eurozone, are not considered here.

iii) Governments and central banks are considered as a single unit below, and are referred to simply as "government".

iv) The argument starts with the "closed economy" assumption. Open economies, that is economies which trade with the rest of the world, are considered towards the end.

Structural and stimulus debt

A distinction is made below between debt arising for structural reasons and for stimulus reasons. Structural debt is taken here to mean debt which arises purely through failure to collect enough tax to fund government spending: there being no intention to impart stimulus. In practice this usage of the word "structural" amounts to the same as the definition given, for example, in the Reuters Financial Glossary definition, which is "The portion of a country's budget deficit that is not the result of changes in the economic cycle. The structural deficit will exist even when the economy is at the peak of the cycle."

This distinction between structural and stimulus debt is not in practice very important. The distinction is only made here so as to clarify the theory.

Structural debt

The idea that structural deficits or debts cannot be reduced without deflationary consequences is on the face of it bizarre because as mentioned above, structural deficits and debts do not arise out of any intention to impart stimulus. Thus the removal of

structural deficits and debts will not, by definition, have any "anti-stimulatory" effect.

This raises the question as to why there is a widespread belief that removal of structural deficits or debts will be deflationary. The answer is that those who make the latter claim make a simple mistake, which will now be explained.

Let us consider a government which raises spending by $X a year and fails to collect tax to cover this expenditure, and which has to borrow in consequence. The effects of consolidating the debt a few years later will then be considered.

The above failure to collect enough tax has a stimulatory or inflationary effect which must be countered by some sort of deflationary instrument, for example borrowing, assuming aggregate demand is to remain constant. Where government goes for the borrow option, the deflationary effect, is unlikely to be sufficient if government simply borrows $X. Reasons are as follows.

The latter "borrow and spend" scenario involves having government take $X from the private sector, give the private sector $X of bonds in return and spend the $X back into the private sector. The net result is that the private sector is $X up (in the form of $X worth of bonds).

That is different from extracting $X per year of tax from the private sector and spending the money. In the latter case, the private sector is no better off: at least the private sectors' net financial assets (PSNFA) do not rise.

Thus under the borrow option, government will need to take some further deflationary measure. This additional deflationary measure could be to raise interest rates, or it could be to borrow an additional amount over and above the $X and doing nothing with the money concerned. Effectively, the "additional amount" is extinguished or "unprinted".

Indeed, raising interest rates and borrowing the above "additional amount" come to much the same thing, since governments force through interest rate increases by borrowing, i.e. selling bonds. So let us assume that given a tax shortfall of $X, government has to borrow $(X + X^1), where $X represents money that is borrowed and spent, while the $X^1 is money that is simply borrowed, period.

Consolidating the debt

When government subsequently decides to consolidate the debt after let us say Y years, government will, all else equal, just need to reverse the above process: that is, it will need to raise taxes by

enough to buy back $XY of bonds, plus it will need to implement quantitative easing (QE) to the tune of $\$X^{1}Y$.

And this is where the big mistake comes by those who think that consolidating structural deficits or debt is deflationary. That is, in the case of debt for example, they think that the repayment of $XY of debt involves simply raising taxes and/or cutting public spending by $XY, and repaying creditors. And that certainly would be deflationary. In fact the latter mode of debt repayment is excessively deflationary and for no good reason: it is not a mirror image of the way in which the debt was incurred in the first place.

No doubt some adherents to the conventional view would claim that implementing QE while repaying debt is some sort of cheat. One answer is that the above process of incurring debt and then repaying it simply returns the relevant economy and its money supply to where it would have been if the above debt had not been incurred: that is, if the above extra government spending had been funded by increased tax right from the start.

Indeed, it is ironic that what are sometimes called "economic conservatives" or the political right (who tend to oppose governments running up large debts) are the very ones likely to object to paying off debt in the above manner, because debt repayment is "assisted" by printing money to the tune of $\$X^{1}Y$.

To repeat, the latter process simply returns the economy to where it would have been had structural debt never been incurred! Thus much of the West's elite, economic conservatives in particular, are in the bizarre position of objecting to the very thing they want: the scenario that would obtain if no structural debt had been incurred.

Debt derived from stimulus

In contrast to structural debt, there is debt incurred as a result of Keynsian stimulus: having government borrow and spend.

The conventional wisdom is that this Keynsian policy makes some sort of sense. However, it can well be argued that borrowing for stimulus purposes makes no sense at all. In particular, it is hard to see the point of government borrowing money and paying interest for the privilege when it can print as much money as it wants at no cost.

Keynes (1933), Friedman (1948: 250), Mosler (2010) and Hillinger (2010:3) pointed out that deficits can perfectly well accumulate as extra monetary base rather than extra debt. Of course having deficits accumulate as monetary base rather than debt is doubtless more stimulatory, dollar for dollar, than accumulation in the form of debt. But that just means that fewer

dollars need be employed for given stimulatory effect under the "base" option than the debt option.

If incurring debt for stimulus purposes does indeed make little sense, it follows that if a government *has accumulated* debt for stimulus purposes, it should be possible to convert this debt to monetary base without any austerity. And indeed, this is easily done simply by "printing" or creating monetary base and buying back debt (or ceasing to roll it over). In short, debt can be converted to monetary base via QE.

That on its own would probably be too stimulatory because PSNFA becomes more liquid. And that in turn would necessitate some form of compensatory and deflationary measure, like increased taxes.

As long as the stimulatory effect of the QE equals the deflationary effect of the extra tax (and/or public spending cuts), the net effect is neutral. That is, there is no effect on GDP, aggregate employment and so on: in short, no austerity.

Apart from the above PSNFA effect, there are of course additional ways in which the Keynsian "borrow and spend" policy might work. For example, Keynsian borrow and spend involves taking cash from the relatively well off, and spending it in ways that channel money into the pockets of the population at large. Given that the less well-off spend a larger portion of additional income than the rich, there may well be an aggregate demand expanding effect.

However, the effects of Keynsian policy is much in dispute, plus quantifying the effect is not central to the argument here. The central point made here is that whatever the effect of Keynsian policy and the debt it gives rise to, the debt can be paid off without any "recovery hindering" effects.

To illustrate, if Keynsian type stimulus has an effect way beyond the PSNFA effect, that just means that consolidation will have a relatively deflationary effect, which in turn means that the tax increase accompanying the above mentioned QE would have to be relatively small.

To summarise so far, structural deficits and debts can be removed without any big deflationary effects. Stimulus debt is equally easy to remove. In contrast stimulus deficits clearly must stay in place as long as the recession continues. However, the latter can perfectly well accumulate as extra monetary base rather than as extra debt.

The combined structural and stimulus debt

As most readers will have noticed, consolidating structural debt can be done in the same way as consolidating stimulus debt (extra tax or less public spending plus QE). Thus there is no real need to know how much of a country's debt has accumulated for structural rather than stimulus reasons. To repeat, the two were separated above just to clarify the theory.

Furthermore, the actual stimulus obtained from increasing stimulus debt years ago has nothing to do with how stimulatory or "unstimulatory" the consolidation of such debt this year or next ought to be. For example, if the private sector is currently in a fit of irrational exuberance, that would be an argument for consolidating debt in a relatively deflationary manner.

Indeed, to ignore both the size of the current debt and monetary base and the circumstances in which they arose is very much in keeping with Lerner (1983: 39), who said "government fiscal policy, its spending and taxing… and its issue of new money… shall all be undertaken with an eye only to the results …and not to any established traditional doctrine about what is sound or unsound".

Incidentally, if taken to the extreme, the above QE policy, would involve buying back all debt which would result in a "zero debt" economy. And that is not as outlandish an idea as it might seem: Friedman (1948:250) and Mosler (2010) advocated zero debt economies.

Open economies

As far as incurring and paying off debt goes, the basic difference between a closed and open economy is of course that foreigners can respectively buy and sell debt.

The word "foreigner" is not strictly accurate here in that as far as economic effects go, there is no difference between on the one hand a foreigner selling debt and reinvesting the proceeds abroad, and on the other hand, a native doing likewise. In other words it is the behaviour of those prepared to invest abroad rather than in just one country that is of relevance here. However, the word "foreigner" will be used below for the sake of brevity.

If foreigners sell debt during a debt consolidation phase and reinvest the proceeds abroad, the price of the currency of the country concerned falls relative to other currencies, that is devaluation takes place. And this of course involves a standard of living reduction for the country concerned, which certainly counts as "austerity". But there are several reasons for thinking the amount of austerity here will be or could be limited.

1. No austerity for the world as a whole is involved since in the absence of any evidence to the contrary, the best assumption that can be made is that the standard of living loss for the devaluing country will be matched by a standard of living rise for other countries.

2. Where foreigners hold a significant portion of a country's debt, there is a limit to how quickly they can withdraw their investment without causing a serious devaluation of the currency of the debtor country, which in turn devalues the worth of the rest of foreigners' investment in the country concerned. For example, China has been seriously concerned about the monetisation or threatened monetisation of US debt recently. But China has withdrawn very little of its investment in the US because of this. China, so to speak, has nowhere else to go.

3. As mentioned above, any austerity caused by the behaviour of foreigners can only occur via devaluation. If a significant number of countries coordinate their consolidation efforts, the foreign exchange effects are ameliorated, thus any austerity is also ameliorated.

Aggregate employment

Some advocates of the idea that debt consolidation hinders the recovery presumably mean "recovery" in the sense of returning aggregate employment to pre-recession levels, rather than returning GDP growth to pre-recession levels. In fact there is little reason for consolidation to reduce aggregate demand and thus aggregate employment.

The only reason for such a reduction comes from the fact that debt consolidation changes the pattern of demand, which in turn requires people to change jobs, re-train and so on. And that would temporarily worsen the inflation / unemployment relationship. (The altered pattern of demand stems, amongst other reasons, from the devaluation of the currency of the debt repaying country, mentioned above.)

But this altered pattern of demand occurs just as much during the build-up of debt as during consolidation, which is yet another reason for governments not to incur debt! (Yet more arguments against governments incurring debt are given in Musgrave (2010)).

The solution to this altered pattern of demand problem is to consolidate debt slowly rather than quickly. If the resulting altered pattern of demand is small compared to the constantly changing patterns of demand that occur anyway, then the effect on aggregate employment will be small.

Is consolidation urgent or necessary?

Having argued that consolidation can be effected with little or no austerity, this is not to suggest that consolidation is urgent for every country.

Several governments are currently paying a rate of interest on their debt which, after adjusting for inflation, is around zero or even negative. Moreover the national debts of the US and UK at the time of writing are still only around half the level, relative to GDP, that obtained just after World War II.

Having said that, there is a particular sense in which debt reduction can be taken too far, which is as follows. As pointed out above, there is little point in a country which issues its own currency borrowing money, given that it can print any amount of such money as required. Thus reducing the stock of "interest paying" debt makes sense.

However, monetary base is at least nominally a debt (owed by the central bank to holders of monetary base). It is debatable as to whether this counts as debt, but if it does, then reducing this form of debt can go too far: if such a reduction were to reduce PSNFA to such an extent that the private sector did not spend enough to bring full employment, that would constitute "going too far".

Conclusion

1. To the extent that an economy is closed, debt consolidation need not hinder the recovery or cause austerity. There may well be political problems relating to which income or social groups gain and lose from debt repayment, but overall, no austerity need be involved.

2. To the extent that an economy is open, debt repayment involves austerity for the country concerned only to the extent that debt holders invest the proceeds of debt repayment abroad. Even where proceeds are invested abroad, no austerity for the world as a whole is involved, since loses by debt repaying countries are matched by gains in countries which do not repay debt.

3. Austerity can be minimised in debt repaying countries if those countries coordinating their debt repayment efforts.

4. As distinct from austerity in the sense of hindering GDP growth, debt consolidation would reduce aggregate employment because the pattern of demand is altered. But this problem can be minimised by limiting the speed of consolidation.

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

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 tha t has been around for centuries. This idea occurred to Pericles in Ancient Greece. The work houses in Europe and

North America in the 17th to 19th 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.

- 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.
- 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': tha t 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 p ut 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-i deal' 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 t his 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 th at 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.

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 fa ctors 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 pick s 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.)

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 e quipment) 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.

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.

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.

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.

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.

The second main argument: the declining marginal product of labour

As pointed out at the outset, the two ‘pro TES’ arg uments set out in Musgrave (1991) are now introduced. The first ‘1991’ argument is t hus.

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.

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.

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.

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 t he 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.

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 hig h 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.

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 sen se 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.

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.

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 som e rationale for various other employment subsidies in other countries. Plus it will indicate faults in these latter subsidies.

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' chara cteristics 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 argumen ts, 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 followin g 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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3. Government borrowing is pointless where a government issues its own currency

Introduction: The lack of justifications for government borrowing

One of the main alleged justifications for government borrowing is that it helps regulate aggregate demand: Keynsian "borrow and spend". This justification makes little sense, as is shown below. Other justifications for borrowing are thin on the ground: they are a long way from being backed by a string of economics Nobel laureates.

I have three standard economics text books used by first year university students, each with six to eight hundred pages (Alchain, 1974; Lipsey, 1999 and Sloman, 2000). "Borrow and spend" apart, the only justification given in these books for borrowing is that governments sometimes find themselves unexpectedly short of income. This argument, plausible as it sounds, does not stand inspection, as is shown below.

Hundreds of articles and papers have been published which deal with government borrowing, and which go into numerous complex issues related to government borrowing. Borrow and spend apart, none of them seem to address in any depth the basic question as to why governments borrow.

There is even a book advertised as specifically addressing this question (McDonald, 2006). Two reviewers (see Note 1 at the end) claim that McDonald "starts with some fundamental questions: Why do governments borrow...."

These reviewers are wrong. McDonald's work is a well researched HISTORY of government borrowing, but does not answer the above fundamental question.

Abba Lerner and Milton Friedman

The idea that government borrowing makes little sense is not new. Friedman (1948: p.250) makes this suggestion. And Abba Lerner is widely credited with being one the first to claim that government borrowing is pointless in that funding government expenditure is not the main purpose of government borrowing.

The arguments below do not attempt to improve on Lerner's ideas: rather, the purpose is to consider the alternative ideas, that is the conventional and alleged justifications for government borrowing, and to show that they do not stand inspection. Put another way, the objective is to show that Lerner's ideas do not face strong opposition.

Tax and print money

The fundamental weakness in the idea that governments need to borrow is the fact that governments have access to almost limitless funds from tax (plus a smaller source of funds: money printing or "seigniorage").

Some advocates of borrowing might want to answer this by turning the latter argument on its head. That is, why not argue that tax is questionable given the extremely large sums that governments can borrow?

The answer to this is that in the long run, say ten years or more, the vast bulk of government funds inevitably come from tax. That is, in recent decades, most countries' national debts have hovered very roughly around half of GDP: that is about one twentieth or less of total funds that the government of a typical country needs over a ten year period. And debt to GDP ratios much more than the above "half" are regarded by markets as undesirable.

Given this lack of importance of borrowing in the long term, the question arises: why borrow at all? That is, the onus is on advocates of borrowing to justify themselves, not on the advocates to tax to justify themselves.

Money Printing

Having claimed above that government borrowing needs to be justified because of its relative insignificance, the same charge could be made against money printing. The justifications for money printing relied on here are the conventional or text book ones, which briefly are as follows.

First, as an economy expands in real terms it will require a larger money supply (in real terms). Second there is a consensus that inflation of about 2% is optimum. Thus the amount of printing needed per year (assuming growth of say 2%) will be roughly 4% of a country's monetary base (2% + 2%).

Also it makes sense for governments to vary the proportion of funds they obtain from tax as opposed to money printing, depending on the circumstances. And this proportion can vary dramatically: the monetary base expansion of both the UK and US in 2009 was unprecedented and this was the correct response the current recession. And conversely, if this expanded monetary base looks like contributing to excessive inflation in say 2011 or 2012, this may warrant a monetary base contraction as dramatic as the above mentioned expansion.

Moreover even the above dramatic monetary base increase was not enough, according to some, e.g. Galbraith (2009) and Tavakoli (2009).

In contrast to the above claim that the monetary base should be expanded in a recession, there is of course Milton Friedman's argument that governments are so hopeless at organising counter cyclical measures that it would be better if they did not try. This is doubtless a good point, on the other hand, given a serious recession, the political reality is that governments cannot stand by and do nothing.

The closed economy assumption

It is assumed here, unless otherwise stated, that we are dealing with a closed economy. This assumption is not too unrealistic: that is, most of the arguments below apply to open economies, but in slightly altered form.

For example as regards national debt, about three quarters of the UK's national debt is in the hands of UK nationals, not foreigners. And even to the extent that UK national debt IS held by foreigners, this is approximately balanced by the amount of foreign government national debt held by UK nationals.

The US is obviously different in that other countries, China and Japan in particular, hold around half of US national debt at the time of writing. However, this is a recent development. It was not till around 1995 that foreign holdings of US debt rose above the 20% level. However, in view of this large recent rise in the proportion of US government debt held by non-US entities, there is a section below devoted to the question as to whether it makes sense for governments to borrow from abroad.

The flawed justifications for government borrowing

Various alleged justifications for government borrowing will now be examined, and in no particular order.

Riley (2006) gives two reasons or sets of reasons for government borrowing. The first is thus.

> "Government borrowing can benefit economic growth: A budget deficit can have positive macroeconomic effects in the long run if it is used to finance extra capital spending that leads to an increase in the stock of national assets. For example, higher spending on the transport infrastructure improves the supply-side capacity of the economy promoting long-run growth. And increased public-sector investment in health and education can bring positive effects on labour productivity and employment. The social benefits of increased capital spending can be estimated through use of cost-benefit analysis."

The first flaw in this argument is that governments do not HAVE to borrow in order to fund capital projects. As already pointed out, they can easily fund such projects via tax. Indeed according to Kellerman (2007), the "social opportunity cost", (as Kellerman calls it) of financing public investment via borrowing is normally higher than via tax.

As to Riley's points about "long run growth" and "cost-benefit analysis", these are irrelevant. It is obviously true that capital projects should pass cost benefit tests, and that if they pass such tests, "long run growth" should ensue. But neither of these points in themselves are arguments for any particular method of financing government.

Does borrowing facilitate aggregate demand management?

The second justification for government borrowing given by Riley is the popular one mentioned near the outset above: Keynsian "borrow and spend" is allegedly a good way of managing demand.

However, there is a HUGE problem here, namely that there is a large amount of argument as to what extent "borrowing and spend" actually works. For example, it is plausible that "borrow and spend" does NOT influence demand because of the well known "crowding out" effect.

On the other hand it is equally plausible that borrow and spend DOES raise demand in that this activity may get a relatively slow moving money supply moving. (The velocity of circulation of money fell 72% in New York between 1929 and 1932).

But given the large uncertainties surrounding borrow and spend, it is almost lunatic to use this tool at all. And another absurd aspect

of "borrow and spend" as a means to stimulate an economy is that the "borrow" part is quite clearly deflationary. Now if the objective is to stimulate or reflate an economy, what is the point of doing something which, at least to some extent, has the opposite of the desired effect?

The purpose of having a bath is the clean oneself (forgive the statement of the obvious). Is there any point in throwing dirt into the bathwater before climbing in? Obviously not. "Dirt", so to speak, is the opposite of "clean" is it not?

Conclusion: given the uncertainties surrounding "borrow and spend", this is a strange policy to adopt. It would make more sense either to employ interest rate reductions, or to concentrate on the part of "borrow and spend" which quite clearly DOES have an effect, that is the "spend" part. Put another wa y, "print and spend" is a far more logical policy (a sentiment shared by Hillinger (2010: 3-21).

The latter policy is effectively what the UK "government / central bank machine" did in response to the recession in 2009. That is the UK national debt expanded by around £200bn in 2009; but around ninety nine percent of this sum was quantitatively eased. Thus the net effect was simply to print £200bn. (Any readers not clear on this point please see note 2 at the end).

Extinguishing money

"Borrow and spend" is allegedly a way to boost demand, but as was shown above, there are big question marks over this policy. That is, straightforward "print and spend" would be more certain in its effects.

This raises an apparent problem. When economies overheat, governments need to adopt a deflationary stance. If government borrowing is abolished or severely curtailed, one of the main traditional methods of damping demand, namely interest rate increases, might seem to have been destroyed.

The answer to this alleged problem is that no criticism is being made here of another activity, sometimes called "borrowing", namely a central bank raising interest rates, and enforcing this interest rate rise by announcing to the markets that it will pay a higher percentage by way of interest to anyone wanting to "lend" funds to the central bank.

The difference between the latter and more normal borrowing is that nothing is done, or at least nothing SHOULD be done with the money so attracted. Indeed, the mere fact of doing nothing with such money means that the money is to some extent extinguished

or shredded, because the longer the money is "borrowed", the more does inflation erode its value.

In addition, while this takes place, the "government central bank machine" effectively confiscates money from the private sector to pay for interest on the "borrowed" money.

To expand on the latter point a little, where a central bank pays interest on "borrowed" money, the money for this interest must come from somewhere. Since central banks normally make a profit, which is normally handed over the government periodically, the money for the above interest will simply reduce this profit. That is, government's income is reduced, which in turn means less government spending on roads, schools etc. Alternatively, if spending on the latter is to be held constant, then taxes have to be raised.

To summarise, both the OBJECTIVE and to a greater or lesser degree the actual EFFECT of the above operation is simply to confiscate money from the private sector and destroy it. This is not "borrowing" on any normal meaning of the word.

Finally, there is the problem that higher interest rates attract money from abroad and interest has to be paid on this. This represents a real cost for the country concerned. On the other hand, this problem occurs just as much with borrowing in the conventional sense of the word, so this is not a problem specific to "borrowing with a view to shredding".

Does borrowing make those who benefit from the associated investment pay for such investment?

Many government financed investments (roads, hospitals, etc) endure at least a generation, and sometimes a century or more. Obviously it would be fair to make those who benefit decades in the future from such investments pay their fair share. And on the face of it, one way of doing this is to finance such projects with borrowed money, and gradually pay back the capital sum. This way, future generations do as much "paying back" as the current generation.

But there is a flaw in this argument: it is a plain physical impossibility to have future generations produce the concrete, steel and so on needed to build roads or bridges this year or next. And having new born babies or the as yet unborn supply labour to build roads and bridges is a problem too!

The only way to have future generations in one country to pay for today's investment would be for the country to borrow the capital sum from some other country, and gradually pay the money

back, as pointed out by Musgrave (1939: 269). (That is not me, nor a relative!).

But if every country adopts the latter policy, it becomes self defeating.

Moreover we all benefit from investments made by previous generations where the relevant debt has long been paid off. For example one very large investment of this sort is education: capital costs apart, these costs are normally born and paid off annually (e.g. teachers' salaries). Thus trying to allocate the costs of investments to each generation in any sort of accurate way is a bureaucratic nightmare. It is probably simpler just to accept that each generation inherits huge benefits from previous generations, and that each generation should "leave the world as it found it", that is fund and pass on a roughly equivalent amount of investment to succeeding generations.

To summarise, having future generations pay for the investments they inherit is, first, almost a physical impossibility, and second, even were it possible, the idea is probably more trouble than it is worth.

Does borrowed money come from the wealthy?

An attraction of borrowing for politicians is that most of them probably think that borrowed money comes from the cash rich or the wealthy. Certainly politicians who want to ingrate themselves with the majority of the electorate, that is those on average incomes or less, will be attracted by this idea.

The above is a plausible idea: after all, where can government possibly get cash from other than those with cash to spare? However, there are flaws in this argument, as follows.

When interest rates are raised so as to attract funds to government coffers, there are three potential sources of funds: 1, additional saving by lenders, 2, forgone borrowing by borrowers, and 3, idle cash or an increased velocity of circulation of money.

As regards the last, No. 3, there is a big problem. As already pointed out, where this source of funds operates, the effect is an increase in aggregate demand. And we are not concerned with increasing demand: we are concerned to have government borrow and increase its spending OTHER THINGS BEING EQUAL. That is, the assumption is CONSTANT demand.

Thus to the extent that increasing interest rates does increase the velocity of circulation and hence increase demand, this will have to be negated by further rate rises combined with the money shredding type of borrowing. Indeed this simply reflects the brute physical fact, already pointed out, namely that, increased

consumption by government must be matched by reduced consumption by the private sector. Thus No. 3 is ruled out as a source of funds.

That leaves Nos 1 and 2, that is, additional saving by lenders and forgone borrowing by borrowers.

Taking lenders first, it is implausible that this reduced consumption by lenders takes place, plus the evidence seems to support this implausibility. That is, lenders (just like the rest of the population) are well aware that interest rates constantly rise and fall. Thus given an interest rate rise, are they really going to forgo their annual skiing holiday so as to put the money saved into the bank and get an extra £5 a year of interest next year?" And £5 is about all they would get.

It seems far more likely that any reduced personal consumption is effected by borrowers, not lenders. Amongst other reasons this is because it is much easier for borrowers to make large and sudden reductions in borrowing than for lenders to make large and sudden increases in saving. For example postponing borrowing money with which to buy a new car, and instead running the old car for a year or two is easy. Indeed, a large number of would be borrowers did this in the early part of the current recession, and car manufacturers were in trouble as a result, though this problem was alleviated by various "cash for clunkers" schemes later on.

In addition to households who forgo loans, given a small interest rate rise, some firms will do likewise, that is, postpone or abandon investments. And as with households, this is easy to do: at least it is easy in the sense that it does not take a genius to abstain from arranging a loan to buy some machinery.

Moreover, the evidence seems to support the idea that interest rates have little influence on saving. See Japelli (2002, p.12).

As to borrowing, Martins (2003) found that household borrowing is strongly influenced by interest rates. Alessie *et al.,* (2005) found the same.

A second flaw in the idea that borrowed money comes from those with cash to spare, is that whoever forgoes consumption in order to fund government will ipso facto reduce the incomes of those who would have supplied the relevant goods had this consumption taken place. To illustrate, households which abstain from ordering new kitchens because they cannot afford the finance will reduce the income and consumption of those running and working for kitchen improvement firms, and the latters' suppliers.

To summarise, both the evidence and the theory seem to indicate that additional borrowing by government is funded mainly by reduced borrowing by the private sector, rather than by

increased saving by the private sector. Thus it does not seem to be the cash rich who fund government borrowing. But even if this claim is wrong, the whole question as to who forgoes consumption when government borrows rather than taxes is certainly complicated.

Another political argument: passing the buck to successors

In addition to the above argument about making future generations pay a fair share of the cost of investments, there is the similar argument (popular with politicians, no doubt), namely that borrowing somehow "delays the day of reckoning". Unlike the above "investment" argument, this "buck passing" ar gument could be applied to current as well as capital spending. That is, borrowing might seem like a way of bestowing favours on the current electorate, while leaving the allegedly difficult task of repaying the debt to successor politicians and future taxpayers.

Indeed, there is evidence that the motives for borrowing are political, rather than properly thought out economic reasons. Roubini & Sachs (1989, p.931) show that the higher the number of parties in a coalition government, the higher is public debt. Put another way, a single party with a decent majority can afford to engage in "tough love" (or what appears to be tough love), that is, raise taxes so as to repay national debt.

The flaw in this "buck passing" idea is the "physic al impossibility" point (set out above). That is, the real sacrifice is made while the spending that corresponds to the money borrowed takes place: and it makes no difference whether the expenditure is of a capital or current nature.

To illustrate the latter "current" point, there is no way of having those who will be born in 2015 make a contribution to generating electricity that is consumed in government offices in 2010. Moreover, this "physical impossibility" point should show up, as it were, in the economic theory. And it does, as follows.

Take an economy which is working at capacity or full employment. Regardless of whether an item of government spending is financed by tax or borrowing, there is no way the materials for this investment can be obtained other than by withdrawing resources from the rest of the economy. That is, given that the economy is at capacity, additional demand for materials and additional demands on the labour market will simply be inflationary.

In short, the "buck passing" idea is nonsense.

Appearances versus reality

There is of course a possible weakness in the above claims that borrowing rather than tax brings little benefit for politicians trying to ingratiate themselves with the electorate. This is that the electorate may THINK borrowing is preferable to tax.

However the objective here is to deal with reality, not with the electorate's ideas as to what constitutes reality.

If the electorate is deluded, the electorate needs educating. A properly functioning democracy involves, first, the electorate having a good grasp of the reasons for government decisions, and second, the electorate expressing its views on such decisions.

The sudden large expenditure argument

One fully justifiable reason that households or firms borrow is that they do not have the cash to make purchases that are large relative to their annual income. For example someone buying a house will typically spend around three to five times their annual income on the purchase. That is a very good reason to borrow: indeed, in most cases there is no option BUT to borrow.

Government, in contrast, is in a totally different position. The TOTAL of government spending on capital projects per year is an almost entirely predictable sum which is much less than half of total government income. Moreover, while some investments (like power stations or motorways) are certainly large, the construction and thus the expenditure normally take place over several years.

Does the erratic timing of tax receipts within each year justify borrowing?

Governments do not receive a constant amount from tax each month. And government spending can vary in a similarly erratic manner from month to month.

This leads some to claim that governments need to borrow during those parts of the year when receipts from tax are on the low side and/or spending is higher than normal. The quick answer to this is that given a short term lack of income, government can easily print money; then, a few months later, when income exceeds spending, government can do the opposite, that is rein in money and extinguish it.

It could be claimed that the latter money printing would be inflationary. However, there are flaws in this argument.

First, inflation is unlikely to take off just because the money supply is more than optimum for three months and then an equivalent amount below this level for the next three months.

The next flaw involves Ricardian equivalence of a sort: that is, where a private sector entity knows there is a £Y tax liability in the pipeline and has sufficient cash to meet this liability, that entity is unlikely to blow the £Y on frivolities.

This argument gains support from examining what might be called the counterparties to the regular annual government shortages and surpluses of income. These counterparties are very definitely not the sort of people who might blow a temporary excess of cash.

For example a significant proportion of people living on benefits might spend any temporary excess cash; however a large majority of these people (at least in the UK – pensioners or those on invalidity benefit) receive a fairly regular income from the state and thus do not cause erratic changes in government net income.

As to a slightly more responsible or talented or lucky section of the population, employees, this section of the population also has a regular income. As to income tax, this is deducted from wages and salaries, both where wages are paid weekly and where paid monthly (at least in the UK). Thus this section of the population does not contribute much to changes in government income either.

Finally, the sections of the economy which really cause the irregularities in government income are corporations and the self employed. These sections of the economy (at least in the UK) pay tax on profits once or twice per year. And there are penalties for late payment. However, it is precisely this section that is least likely to blow a temporary excess of cash. Any corporation or self employed person with a propensity for this sort of behaviour will not last long in business.

Conclusion: the variations in government net income through the year are not a reason for government to borrow.

Open economies

In view of the large amount of US national debt which governments and other non-US entities have bought in the last decade, the question obviously arises as to whether government borrowing from abroad makes sense.

Where the private sector in a particular country finds that foreigners are willing to lend at a rate of interest below the prevailing rate in the country concerned and makes use of this cheap finance, this is a straightforward free market transaction. Unless there is are reasons to suspect market failure, there can be no objection to this transaction.

As to whether it makes sense for the GOVERNMENT of the relevant country to borrow from abroad, the excuses are weak in

the extreme, because as has been shown in the above paragraphs, the various alleged reasons for government borrowing no not stand inspection. At least, there are no good reasons for borrowing in the normal sense of the word, i.e. "attracting funds to finance expenditure".

Moreover, if a government DOES borrow from abroad, this inevitably reduces the amount it needs to raise from tax or borrowing from domestic sources. Thus if a government does implement this policy, it is effectively just acting as an intermediate between foreign lenders and domestic private sector borrowers. And it is not government's job to do this. That is, if a citizen or corporation in a particular country needs to borrow, it is up to the relevant citizen or corporation to sort out the best deal, and not expect government to do this job or even influence the decision, unless market failure can be demonstrated.

No borrowing means no liquidity traps

There is not perfect agreement amongst economists as to what a liquidity trap is, but it will be taken here to mean a situation where a recession persists despite zero or near zero interest rates, and no more can be done (at least with interest rates) because they cannot be reduced any further.

Certainly interest rates are at the time of writing at or near zero in several major economies, there has been much discussion as to whether we are in a liquidity trap. The only option in this scenario, according to the conventional wisdom is borrow and spend. But as explained above, there are doubts as to how well borrow and spend works.

That leaves a third option: print and spend which is guaranteed to work. Given constantly rising cash holdings (or declining debts) in the hands of households, such households must at some point begin to spend their newly acquired wealth. The average building site labourer has worked out that when people win a lottery, they tend to spend the proceeds, though it seems a significant proportion of economists have not worked this out.

In contrast to the economists who do not realise that people tend to spend cash windfalls, there are a host of economists who have grasped this point and who thus advocated channelling stimulus directly to households right at the start of the current recession, e.g. Spilimbergo (2008, section 16, p. 6) and Surowiecki (2009).

The serious mistake argument.

Government plans regarding total expenditure and the total collected via tax for a particular year can go badly wrong. For

example the total collected via tax can turn out to be much less than anticipated. In this event, is borrowing justified?

Given the above mistake, the mistake should be rectified with as little dislocation to the economy as possible. This means, in the case of inadequate income from tax, upping taxation as quickly as possible.

Changing the source of government revenue results in a series of other changes to the economy: changes in the pattern of supply and demand for various products, for example. This means people having to change jobs, and learn new skills in some cases. This in turn means a temporary rise in the "natural level of unemployment" or the "Non Accelerating Inflation Level of Unemployment".

If changing the shape of an economy, or changing the patterns of supply and demand are deemed to be in the long term interest of a country, no objections can be raised. But it is undesirable to make these changes, for example by having a significant portion of government income come from borrowing in one year, only to abandon or reverse this change next year. For example when interest rates are altered, this means dislocations for the building industry because house sales are heavily dependent on the ease with which people can get mortgages.

And raising or lowering taxes at short notice should not be difficult. The UK temporarily reduced VAT during the current recession. And a payroll tax holiday has been widely advocated as a way of getting the U.S. out of its recession.

Conclusion

There is little reason for government to borrow money in the normal sense of the phrase "borrow money": that is, using someone else's funds to finance spending (capital or current spending).

In contrast, there is another possible use of the word "borrow". This consists of government (or more usually a central bank) attracting money away from the private sector with a view to doing nothing with such money, apart from shredding as much of it as possible. This is not the normal meaning of the word borrow. This latter policy is justified where a deflationary stance is required.

Notes

Note 1.

The two reviews of McDonald’s book which claim that McDonald addresses the question as to why governments borrow are thus: 1, [Retrieved from] and 2, the publishers, MacMillan: [Retrieved from].

For a longer and better review by *Jonathan Dolhenty*, see: [Retrieved from].

Note 2.

Government borrowing and spending £Z consists of the following three stages. 1, government borrows £Z. 2, government gives £Z worth of government securities to those it has borrowed from. 3, government spends the £Z on the usual items: schools, roads, etc.

Quantitative easing (assuming it is government securities that are quantitatively eased, rather than private sector securities) consists of the central bank printing £Z and buying back the above £Z of securities.

Thus quantitative easing cancels items 1 and 2 above. Thus there is only one net effect: item 3. That is, the only net effect is “government prints and spends £Z”.

Of course there is one other “net effect” namely that the central bank is left holding £Z of government securities. I.e. the government supposedly “owes” the central bank £Z. But this is a nonsense: both institutions (government and central bank) are owned by the people.

To call these securities a “debt” is as nonsensical as saying that shifting £10 from your left hand trouser pocket to the right hand trouser pocket means the latter owes the former £10.

Indeed, in the particular case of the UK, the Bank of England, is legally owned by the UK Treasury. That is the Treasury owns all the shares in the Bank of England.

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4. Pensioners' travel concessions: A misallocation of resources

Introduction

It is argued here that the case for pensioners' travel concessions is weak, because pensioners would be better off with the cash equivalent. That is, concessions should be abolished, with the money saved (approaching £1bn a year in the UK) being used to raise the state pension. Most of the money could be channelled into the pockets of poorer pensioners, i.e. those who previously tended to use concessions, by various alterations to the tax and social security system, like reducing the over 65s' income tax personal allowance.

As to why we have pensioners' travel concessions, the political and psychological reasons are obvious, as is pointed out in section 18 below. As to the economic or logical rational, this is a bit of a mystery, in the sense that there do not seem to be any well researched, carefully argued expositions of the case for concessions. Academic journals devoted to transport, seem to have nothing much on the subject. Department of Transport publications are not too illuminating. Search engines are no better.

A document produced by the Commission for Equality in Northern Ireland expresses frustration at the lack of any precise objective for concessions (1, section 11). Two other works cast doubt on the value for money represented by concessions (2 & 3). Those involved in a recent case involving concessions in the European courts also seemed to have difficulty in coming up with the rationale for concessions (4.). The best they could do was

"…the purpose of travel con cessions was to facilitate access to public transport for a range of persons who tend to be less well off." This is typical of the justifications produced.

But this justification is suspicious. If people are insufficiently "well off", why not give them more money? And if the above justification is valid, how about shoe concessions, food concessions and a dozen other concessions so as to "facilitate access to shoes, food, and so on for the less well off"? These questions are examined below and the conclusion is that the above "suspici on" is well founded, that is, the above justification for concessions is very much the nonsense that it appears to be.

In view of the lack of good arguments for concessions, some of the material below may seem to consist of flogging dead horses.

The argument below starts by quickly disposing of three popular but feeble arguments for concessions. Then a more complex question is considered, namely whether subsidising travel is justified on the grounds that it is a merit good.

Pensioners tend to travel during non-peak periods, so give them concessions.

One popular argument for concessions is that pensioners tend to travel during off-peak periods: periods when buses and trains are running half empty, that is periods when the marginal cost per passenger is low. Therefor pensioners should pay a price for their travel which reflects this low cost.

But the answer to the above is that every other age group might as well have off-peak fare reductions as well: a policy already in effect in many cities round the World.

Advocates of pensioners' concessions might answer the above by claiming that these concessions increase usage of public transport during the off-peak even more than a flat off-peak reduction for everyone. The answer to this is that different incentives to travel at off-peak times for different groups of people will not maximise the total benefits derived from transport, for a given total amount spent on transport. The reasons for this will be intuitively obvious anyone up to GCSE in Economics, and these reasons are set out a footnote, since a lesson in basic economics here would interrupt the flow of the argument on travel concessions.

Concessions encourage the use of public transport

A second popular argument for concessions is that they encourage the use of public transport rather than cars. The false logic here is much the same as above. That is, it is every category

and traveller than needs to be encouraged to use public transport, not just pensioners: that is why we have public transport subsidies, and substantial taxes on car usage.

Moreover, if anyone is going to be given an additional incentive to stand at bus stops in the cold, and/or lug their shopping home on the bus rather than use cars, it ought to be the relatively young and fit. The latter activities are not desperately suited to pensioners. That is, it is pensioners, where they have the option, that should have preferential access to cars.

Pensioners are poor, and deserve any form of assistance

A third, false argument for concessions is that pensioners are poor, thus any assistance is desirable. The flaw here lies in the word "any" , which is too sweeping. That is, it is easy to think of schemes to "help" pensioners which are nonsensical: for example handing out free cabbages to pensioners (or shoes).

This raises the question as to where to draw the line between effective and ineffective ways of helping pensioners. The answer, as it happens, comes from examining the next argument for these concessions, namely that travel is a merit good.

Merit goods

The definition of "merit good" adopted here is the conventional one: something so fundamental to human well-being that we cannot have anyone go without it. Alternatively it can be defined as something which we think the market has undervalued. Healthcare and education are normally regarded as examples.

Clearly some travel is a merit good: the transport that pensioners need to do shopping or get to the doctor. This will be called "basic" travel, transport, etc in the paragraphs below. In contrast, travelling fifteen miles to a restaurant or theatre comes into the non-essential category. This is not to say pensioners should not enjoy non-essentials. The point is that there is a distinction between essentials and non-essentials, and the reasons for interfering with consumers' freedom of choice are normally very different in the two scenarios. The reason for intervening in the case of an essential (like health or education) is normally to ensure that those in need of the essential are supplied with it. In contrast, about the only reason for intervening in the market for non-essentials is to mitigate some harm, which is why we have a large tax on alcohol. Given these differences, essential and non-essential travel are treated separately below, and we start with the former.

The first justification for a subsidy: its absence is a disaster

As suggested above, there are good reasons for intervening in the case of health and education. One justification is that the consequence of inadequate education or health care would be serious: illiteracy and disease. In fact the consequences are sufficiently serious that not only are some elements of health and education subsidised, they are compulsory (e.g. compulsory jabs, and compulsory education for children). That is, part of the reason for the subsidy is to make the compulsion more palatable.

Travel is in a totally different league. There is no liklihood that anyone with adequate income is going to voluntarily abstain from travelling to the shops and starve as a result.

As distinct from compulsory eduction and healthcare, there is also a large element of consumer choice: only rarely is anyone forced to see their doctor, and as to university education, this is voluntary as well. The reason for subsidies here is more to do with the fact that we that we think the market has undervalued the relevant products than that an absence of the products would be a disaster. However the possibility that the market has undervalued travel is considered several paragraphs hence, so this point will be shelved for now.

The second justification for a subsidy: the subsidy hits the target

A second requirement when allocating a commodity at below cost to any group, all of whose members allegedly need the commodity, is that a large proportion of the group actually gets the commodity. Free state health care and education meet this criterion. That is, virtually every adult knows where their doctor's surgery is, and how to get there, and that the treatment is free. And as to education, much the same applies.

(Of course, a proportion of the population go private for their health/education, but that is their business. Likewise, the fact that some people travel in private jets has little to do with the merits or de-merits of travel concessions.)

Now the contrast between health and education on the one hand, and public transport on the other is stark. According to a study done in Wales, (5, p. 30) around 35% of those who normally use buses find that buses do not meet their needs for shopping. And there is no question but that shopping is a basic necessity, as opposed to a luxury. A Department for Transport study (6, p.34) produced similar evidence: 56% of those surveyed (all ages) said that going shopping by bus would be “difficult”. As to rural areas for the UK as a whole, 75% of rural parishes have no bus service

(7, p.18). As to bus trips to hospitals, the situation is worse than in the case of shopping: the above Welsh study found that only 35% of those who normally use buses said buses met their needs for getting to hospital (as out-patients or visitors).

Apart from the fact that buses just do not meet the needs of a sizeable proportion of pensioners for shopping trips, there is the question as to whether lugging shopping around on buses, and waiting at bus stops is an activity particularly suited to pensioners. Of the above mentioned 56% who said that shopping by bus would be difficult, 20% of these said this was because travel by bus would be impossible, and 80% mentioned difficulty in carrying shopping. (Respondents could give a variety of reasons, thus the fact that the above 20 and 80 add up to 100 is coincidental).

If the above sizeable proportion of people of all ages think carrying shopping on buses is difficult, how about pensioners? The obvious difficulty pensioners have lugging shopping around on buses points to the desirability the option of using their "subsidy money" to subsidise one of the alternative method o f "grocery deliveries". First there are taxis, a second possibility is home delivery, and a third possibility is contributing to relatives' vehicle costs where relatives do the shopping.

The conclusion is that public transport is very different to health/education. The NHS and state education cater for virtually 100% of those who want these services. In the case of public transport, the proportion of the population who are adequately served for shopping trips would seem from the above figures, and at a rough guess, to be in the 60% to 80% range, with the equivalent percentages in the case of trips to hospital being significantly worse.

The third justification for a subsidy: large variations in costs.

In the case of health and education, costs vary dramatically as between different individuals. Also, costs vary dramatically for a given individual over time. In the absence of the NHS many people would face sudden and large bills for medical treatment. Youths go to university, the cost of which can exceed ten thousand a year. This all requires state funding, or at least state intervention of some sort, e.g. making private health care insurance compulsory.

In contrast, basic travel facilities for a large majority of pensioners will at a maximum be something like two or three 5 mile return journeys per week. (The average length of shopping trips for those without cars is one mile, and four miles for those with cars (16, p. 24)).

The above short journey to the shops is a predictable weekly expense. Also the variation in cost as between one pensioner to another (up to five miles of bus journey) is small compared to the variations that occur with health or education. The variations in spending that occur will be no more than the variations that occur in respect of clothes or food, which are also merit goods.

Indeed, food is far more of a merit good than health, education or transport. People are almost bound to die without the former much sooner than without the three latter. But we do not subsidise pensioners' food. This is because, amongst other reasons, food is a predictable weekly expense.

Of course some pensioners need to travel much further than the above mentioned five miles: those in outlying suburbs or in the country. The advocates of travel concessions might argue that therein lies the merit of concessions, namely that concessions pay for these longer journeys. Unfortunately it is precisely the pensioners who need to travel large distances, that is, those in rural areas, who are least likely to have public transport.

Another "variation in cost" argument that advocates of concessions might cite is that some pensioners live within walking distance of shops and perhaps other amenities, whereas others do not. Hence concessions are a fairer way of allocating "travel money" to pensioners, since the result is that the two latter groups both get to the shops for free.

Certainly the latter argument would have some force in a poor country or society which was desperate to ensure everyone had at least the basic essentials (in particular the ability to get to the shops for food). But this is not the society we live in. On the contrary, we live in a society where the average pensioner does a lot more travel than just the travel needed to get to the shops

This calls for a quantification of four phenomena touched on above: first there is the extent to which a concessions and a "no concessions " scenario meet basic travel needs of pensioners. Second there is the question as to what extent the two scenarios result in non-essential travel being subsidised. A quantification exercise of this sort is attempted below.

To summarise, subsidising health and education can be justified first, because an absence of the subsidy has serious consequences. Second, large unpredictable variations in spending occur. And third, health and education subsidies hit their target accurately. The extent to which pensioners' travel concessions meet these three criteria ranges from the "hopeless" to the "not too impressive".

Returning for a moment to the above mentioned second definition of merit goods, namely that they are goods the market

has undervalued, it is very questionable as to whether the market has undervalued transport. Almost certainly the reverse obtains, in view of the forthcoming environmental disaster caused by carbon dioxide emissions, for which transport bears much of the blame.

Another possible argument for concessions in this connection is that where the market has undervalued the objective of a particular set of journeys, as say in the case of education, then the concessions could be justified. This may well be a valid point, which is why this paper does not argue against concessions for students. However pensioners travel for exactly the same wide variety of reasons as the rest of the population, with the obvious and big exception that few pensioners travel to work. And it is almost nonsensical to claim that the market has undervalued all the objectives for which people travel, because this includes just about every conceivable human activity. But if by any chance the market has undervalued all these activities, then this is a case for subsiding all travel for the entire population!

Finally, having argued that the case for intervening in essential travel is weak in the extreme, there remains the question as to whether intervening in non-essential travel is justified. There is normally little reason to interfere with anyone's decision to consume a non-essential unless there are serious side effects involved (as in the case of alcohol). As to what the serious side effects of travel are that we are not already aware of and dealing with (e.g. accidents, carbon dioxide emissions, etc), this is a mystery. In any case, travel concessions encourage the consumption of the relevant non-essential. And where is the logic in encouraging the consumption of a non-essential? This is another mystery. People can and should be left to their own devices when choosing between non-essentials. Conclusion: there is little reason to interfere with pensioners' freedom of choice when it comes to travel, essential or non essential.

The problems with unjustified subsidies: unfairness, bureaucracy and reduced GNP

Subsidising something for no good reason has three drawbacks: unfairness, excessive bureaucracy and the reduced national income that derives from distorted prices.

Unfairness. Some pensioners travel by public transport several times a day, and others scarcely ever. To take a fairly extreme scenario, but one which is probably repeated a few thousand times over the country, if a pensioner gets totally free travel, and does four £2.00 bus trips a day, that effectively equals £56.00 a week of extra pension, or put another way, a 65% increase in the State

Pension for a single person. In contrast, other pensioners who happen not to use public transport get nothing.

Bureaucracy. Issuing bus passes absorbs the time of pensioners and bureaucrats, as does policing the system. The Audit Commission estimates the administration costs of concessionary fares outside London at 5% (11, Para 22). In contrast, if "travel money" is included in the state pension, the additional bureaucratic costs are minimal. All that is required is to alter a few numbers on pensioners' direct debts and so on, a change that occurs once a year anyway. And the bureaucratic costs to central government of paying out pensions as a percentage of the total paid out are much better than the above 5%.

Price distortions. The third problem with unjustified subsidies is strictly economic. It is widely accepted in economics that national income is maximised where prices are approximately equal to costs (unless there are good social reasons for thinking otherwise). An unjustified subsidy distorts the market and reduces national income.

Waste and reaching the needy: concessions versus no concessions

There is a big difference between on the one hand, long distance rail and coach travel, and on the other, bus and urban rail. The large majority of pensioner trips on the former two are for leisure purposes. Thus this form of travel cannot be counted as a merit good, thus the case for concessions here is hopeless.

As to bus and urban rail, a much larger proportion of trips are for essential purposes of which shopping is much the most significant. Shopping accounts for about 35% of all trips for the over 65s on all forms of transport, the biggest single reason for travel (12, p.28). Moreover, as pointed out above, while the arguments for treating travel as a merit good are nowhere near as strong as in the case of health or education, the arguments are not completely hopeless: that is, there is a case, as pointed out above, for quantifying the extent to which the concessions and no concessions scenarios meet the needs of pensioners, and the extent to which both scenarios waste resources.

The calculations below concentrate on buses. Obviously urban rail should be included, but statistics on urban rail seem to be hard to come by. In any case buses carry far more passengers than urban rail, plus pensioners tend to travel by bus rather than urban rail even when they have the choice.

The method used below to compare concession with no concession scenarios for buses is far from perfect. But if this acts

as a challenge to some else to do better, then this article will not have been entirely pointless. (Or perhaps someone else has already done better, in which case the author will have egg on his face)

The conclusion arrived at, after about 2,000 words of references to sources of information and calculations below is that about three quarters of the expenditure on concessions is wasted in the sense that it goes on subsiding the travel of those who could have afforded the full fare (at least for essential travel) or who are on leisure trips. In contrast, wastage in a no-concessions scenario would be about a quarter (this consists of "travel money" going into the pockets o f people living within walking distance of shops). As to ability to reach the needy, a no concessions scenario also fares better. Concessions at best reach about two thirds of those in need, while under a no concessions scenario almost all those in need are reached. In short, there is no contest: the case for concessions is hopeless.

The word waste as used above must be treated with caution: it refers essentially to money going round in circles. This is not the same as waste in the sense of money totally down the drain. Waste in the "totally down the drain" sense is calculated below as being around £25 a year for each pensioner. This is the amount by which pensioners would be better off in real terms if concessions were abandonned.

Readers wishing to skip the calculations can go straight to "Taxi Tokens".

The waste caused by concessions

One form of waste with concessions is concessionary travel by pensioners who could afford the full fare (at least for essential travel).

We as a society have specified a level of income below which it is considered that people cannot afford the basic necessities including, presumably, basic travel facilities (plus whatever luxuries we decide to allow to the very poorest). In the case of pensioners, this level of income was determined by the "Minimum Income Guarantee", superseded by Pension Credits in 2002/3. Minimum Income Guarantee (MIG) will form the basis of the calculations below, rather than Pension Credit, because MIG is simpler: it specifies an exact level of income below which no one is supposed to fall.

There do not seem to be any surveys that asked pensioners on buses whether they were on MIG. This is possibly not surprising because of the personal nature of the question that would have to be asked. However we can get some idea of the proportion of

pensioners on buses who were entitled to MIG from a survey of bus pass holders in Scotland (9). This survey, unfortunately, did not concentrate on pensioners: it included the disabled. However the number of people in the UK on Incapacity Benefit is only around a third the number of pensioners. Also the travelling habits of the disabled do not seem to be much different from pensioners according to another Scottish survey (10, table, 9). The former survey (9, table 3.14) divided respondents into household income quintiles shown in the first column below.

As might be expected, those in the lower income groups did more bus trips per week, shown in the second column. The number of respondents in each quintile is shown in the third column. And the fourth column shows the total number of trips done by respondents in each quintile (second column multiplied by the third).

Income quintile in £/month	Bus trips/ person/week	No. people in each quintile	2nd Col x 3rd (total trips per quintile)
Under 500	7	200	1400
500-750	5.4	153	820
705-1000	4.7	90	420
1000-1500	3.5	82	287
Over 1500	3.5	63	220

Now for the question as to how many trips were done by those above and below the MIG threshold. This is a difficult question to answer in that MIG for single pensioners was obviously different to MIG for married pensioners and the above survey did not distinguish between the two. However this can be got round by working out the average MIG household income of all pensioners, counting the MIG of each married pensioner as being the household income for a couple of pensioners. The reason for the latter is that when a married pensioner is asked what his or her household income is, obviously they will answer with a figure that equals the income of both members of the "family".

The MIG threshold in 2002/3 for single pensioners was £421 a month and £645 a month for couples. There were 2.6m pensioner couples (i.e. 5.2m married pensioners) and 4m single pensioners in the UK. This means that the average MIG household threshold income of all pensioners was £548/month ((5.2 x 645) + (4 x 421) / (5.2 + 4) = 548).

Clearly all members of the lowest quintile are below the MIG threshold. As to the proportion of the second lowest quintile below this threshold, this will be something like (548 – 500) / (750 - 500)

= 0.19. Total nu mber of trips done by this quintile is 820, thus the number of below MIG trips is 0.19 x 820 = 156. The latter added to the trips done by the lowest quintile, 1400, comes to 1556. As a proportion of the total number of trips done by all quintiles (total of fourth column) this is 1556 / 3147 = 49%. Thus wastage caused by pensioners on buses who are above the MIG threshold is 51%.

There will also be some waste caused by the 49% of pensioners on buses who are entitled to MIG, but who are travelling for non essential purposes. Unfortunately there does not seem to be any research into the purposes for which pensioners of different income groups travel on buses. However about 30% of pensioner journeys on all forms of transport are for non-essential purposes (12, p.28). It would be not unreasonable to suppose that the proportion of low income groups' travel which is for essential purposes would be higher than the equivalent proportion for wealthier travellers. However, this does not seem to be the case (10, table 9). Thus, taking the above figures, 30% of 49% is around 15% .

Leisure journeys are around twice the length of shopping journeys, on the other hand fares are not directly proportional to distance travelled. So instead of doubling the latter 15% let us multiply it by 1.5. This makes 22.5%. Call it 22%. Total figures for wastage is thus 51 + 22 = 73%

There are any number of refinements that could be used to improve the above calculations. For example, as already mentioned, the above calculations are based on a survey which consisted mainly of pensioners, but included a significant number of disabled concession holders. This raises the question as to what proportion of each group is below the MIG level. According to a New Policy Institute publication (18) the proportion of disabled who are below 60% of the median income is over double the equivalent proportion for pensioners.

This means a significant proportion of apparantly sub MIG pensioners in the above table will in fact be disabled people. Taking this into account would push the above 73% up a bit.

Another possible qualification to the above figure concerns the somewhat crude assumption that the number of shopping trips equals the number of "essential trips". As pointed out above, shopping is much the most important type of essential trip. But of course there are others: visits to the doctor for example. On the other hand not all shopping trips are for essentials. Hopefully these two false assumptions more or less cancel each other out.

London. The above figures showing the fairly heavy concentration of lower income groups on buses in Scotland is probably not repeated in London. Cars come into their own in rural

or semi-rural areas. In London, the parking problems and traffic jams will be an incentive for all income groups to use public transport. Indeed take up of concessionary passes is around 80% in London compared to 30% in rural areas. The above suggested effect of this on the income distribution of London bus passengers seems to be born out by a survey done in London (15, p.15), which found that the total weekly spend of people going to shopping centres by bus was the same as those going by car.

This London Survey is relevant here for another reason as follows. The above 73% figure for waste is based heavily on Wales which, while it does have large conurbations like Cardiff, is fairly rural. That a significant proportion of bus users find buses of little use for shopping in Wales is not surprising, given that it tends to be rural areas that have poor public transport. No doubt the proportion of Londoners who find buses of use for shopping will be higher than in Wales, which will result in less waste in London. On the other hand, the proportion of bus passengers who are in the higher income groups will doubtless be higher in London than Wales, thus waste from this source will presumably be higher in London.

How well do concessions reach the needy?

It is difficult to calculate with any precision what proportion of pensioners' basic travel needs are met by public transport, because there is no obvious dividing line between meeting anyone's transport needs and failing to do so. Fortunately this inaccuracy does not matter too much because a no concession scenario meets needs vastly better than a concessions scenario.

In trying to estimate whether needs are met, one possibility is to ask bus passengers and potential passengers whether their needs are met. In the case of the above mentioned study in Wales, of those who normally use buses, around 35% said buses failed to meet their needs for shopping (5, p. 30). The latter survey was not specifically targeted at pensioners, but presumably the figure for pensioners is not vastly different from the rest of population.

Another answer of a sort is given by the fact that 80% of the journeys done by over 60 year olds with concessions were, despite the concessions, done by car (12, p.41, table 5.8b) (496/(496 + 128 = 80). From this it might be concluded that public transport fails to meet needs in the case of 80% of potential public transport trips by pensioners (a bit different to the above 35% figure). Possibly the reason for this discrepancy lies in the fact that the above figures relate to all journeys, not just shopping.

Another answer of a sort is given by asking what distance is it reasonable to expect pensioners to walk to a bus stop which buses

pass with more than some minimum frequency. 82% of the population live within 6 minutes walk of a bus stop with a service frequency of at least one bus an hour (6, p.61). Expecting able bodied pensioners to do a 6 minute walk seems reasonable. Expecting them to hang around for up to an hour if they miss the bus for the return journey seems unreasonable. So let us go for a half hour frequency instead. According to the above source, the figure for those within a service of at least one per half hour is 66%.

On this basis it could be concluded that buses meet the needs of about 66% of pensioners for shopping purposes, which ties up, roughly speaking, with the above study in Wales.

But even this 66% figure is optimistic: standing at bus stops and lugging the shopping home is not an activity suited to less agile pensioners. To repeat, they could do with the option of using "travel subsidy money" to help with home delivery, taxis, etc.

Conclusion: at best, travel concessions cater for 66% of shopping trips by pensioners.

The waste in a no concession scenario

Pensioners living within walking distance of shops would be a form of waste under a no concessions scenario, because their "travel subs idy money" is contained in their state pension, and they would not make much use of it for basic travel purposes. Unfortunately there do not seem to be any surveys that give details of pensioners' "walking to the shops" habits. However the proport ion of shopping trips that are walked for all ages is 26% (13, table 12.2). It will be assumed this 26% also applies to pensioners.

This 26% is not strictly comparable with the above 73% in the case of wastage under a concessions scenario for the following reasons. The 26% represents money inadvertently going into the pockets of pensioners who happen to live near shops. This will presumably be a fairly representative cross section of pensioners, though probably there will be a bias towards the less well off, since better off pensioners live in leafy suburban estates some distance from the shops.

In contrast, the 73% represents money inadvertently going into the pockets of a selection of better off pensioners. Money which inadvertently goes into the pockets of the better off is clearly more of a waste per pound than money inadvertently going into the pockets of the less well off. This point could be used to bump up the 73%.

How well does a no concession scenario reach the needy?

In a no concession scenario, as pointed out at the outset, money saved from abolishing concessions is channelled into the pockets of those losing their concessions, first by raising the state pension.

The extent to which the money flows into the pockets of better off pensioners can be controlled, first, by reducing the over 65s income tax personal allowance. Other refinements would not be difficult, for example making alterations to the means tested benefit pensioners are entitled to, "Pension credit ". Another desirable refinement, with a view to reducing the "travel subsidy money" flowi ng into the pockets of those with no prospect of travelling, would be to reduce the benefits specifically aimed at the totally housebound and those in old peoples' homes. And whatever way the latter benefits are tinkered with, the end result cannot possibly be as chaotic and unfair as the system prior to 2000 when pensioners in some areas got free transport while pensioners in other areas paid the full fare.

Conclusion: the degree of failure to reach those in need under a no concessions scenario would be negligible.

To summarise the above four sections, wastage in the case of concessions at 73% is higher than in the case of the no-concessions scenario – 26%. As to reaching the needy, under a concessions scenario 20% of those in need are not reached, though the percentage could be significantly larger, whereas under a no-concessions scenario, virtually all those in need are reached.

The conclusion is that on the basis of the above figures the case for concessions looks feeble. But even if the concession scenario fares a bit better than the no concession scenario on both the waste and "reaching the needy" criteria, the total benefits of the concession scenario still have to outweigh the costs of the bureaucracy they involve and the loss in national income due to price distortions.

Waste in the "down the drain" sense

As pointed out above, the word waste in the sense of subsidising leisure trips is not all money down the drain. This raises the question as to how we arrive at a figure for "money down the drain". As it happens, economics h as a well known and widely accepted set of ideas for answering this question, called "welfare economics". This has nothing to do with welfare in the "welfare stat e" sense of the word: indeed the sense is almost the opposite the "welfare state" se nse. That is, the welfare state could be said to be about first, ignoring consumer preferences, second,

taking money by force off consumers, and third, spending the money on health, education, etc.

In contrast, welfare economics concentrates on consumer preference. This is fair enough where there are no reasons for interfering with consumer choice, as would seem to be the case when it comes to pensioner trips on public transport. Welfare economics is highly democratic: it relies on consumers' own estimation of what everything is worth – not on the opinion of politic ians, do-gooders, and so on.

Welfare economics concentrates on simple supply and demand, and when a subsidy is introduced for no good reason, welfare economics has a well known way of calculating the total loss of "benefit" / "utility" / "wealth" / "income" or whatever you like to call it. The total loss of "benefit", "wealth" or whate ver word is used, is equal to the area of the triangle bounded by 1, the demand line for the commodity, 2, the new supply line (the one that appears upon introducing the subsidy), and 3, a vertical line drawn through the intersection of the demand line and the old supply line. On the slightly crude assumption that all these lines are straight, the loss in "benefit" or "wealth" works out at half of that portion of the subsidy that actually results in increased demand (as distinct from the portion that goes straight into the pockets of those who would have bought the relevant product anyway). Incidentally the Department of Transport also assumes "straight lines" in one of t he rules of thumb it uses to work out the effect of transport subsidies, its "rule of hal f" (see 19).

Now for a "back of the envelope" calculation as to the actual amount of money down the drain in the case of travel concessions. Elasticity of demand for bus travel seems to around -0.4 (footnote 2), which means that a 100% reduction in fares will result in a 40% increase in demand. Incidentally this assumes complete elasticity of supply, which is a realistic assumption: transport operators have to carry any pensioner appearing at bus stops free of charge. Thus money down the drain will be 20% of the total spent on concessions. Plus there is the 5% spent on administration. That makes 25% x £900m = £225m. Divided up amongst 9 million pensioners, that means every pensioner would be better off by £25 a year without concessions. A further saving resulting from abolishing concessions is that about half the money for concessions currently comes from local authorities, whereas given the change proposed here, all money for "travel subsidy" would come from central government. And central government collects tax more efficiently than local government.

Taxi Tokens

The fact that concessions are of little use to a significant proportion of pensioners has induced some local authorities to make taxi tokens available. But tokens have their problems. For example if pensioners want to spend part of their "travel subsidy money" on taxis and part on public transport – a pe rfectly reasonable request – how can this be done? The relevant pensioners cannot be allowed to have the full normal concession plus tokens: that way they would be collaring more than their share of transport subsidy money. The problem could be solved by a "restricted use" concession, but this seems a bureaucratic nightmare.

One solution would be to give pensioners travel tokens that are equally valid on taxi and public transport. But this would amount to a big increase in flexibility inherent in tokens. This raises the question, why not go even further and give pensioners an even more flexible token: money?

In practice, local authorities have a variety of rather crude solutions to the above sort of problems. For example most local authorities allow taxi tokens for the disabled, but not for those who are poorly served by public transport.

Also tokens can be and are sold to taxi drivers for cash. And unlike concessions which are not widely not used by wealthier pensioners, the latter make significant use of tokens, so it would seem. "Tokens are widely used for occasional taxi trips by relatively affluent pensioners" according to a Leic estershire County Council document (8).

The bureaucratic costs of taxi tokens are higher than in the case of bus concessions. The typical value of tokens that can be purchased per year per person seems to be in the £25 to £50 range, which does not buy a huge amount of taxi mileage.

Social Exclusion

It is almost impossible to read anything about travel concessions (or anything else nowadays) without constant references to social exclusion. The latter is often given as a justification for travel concessions.

The definition of this phrase adopted here are the two that appear in two online dictionaries, which are thus.

2. This is a term to describe marginalisation from employment, income, social networks such as family, neighbourhood and community, decision making and from an adequate quality of life.

3. The various ways in which people are excluded (economically, politically, socially, culturally) from the accepted norms within a society.

The fundamental reason why social exclusion is irrelevant to the change proposed here is that the change, far from reducing the total funds available to pensioners to spend on travel, would actually increase such funds: as pointed out above, the change would raise national income plus various bureaucratic costs would no longer have to born. Assuming all these newly available funds were allocated to pensioners, the latter would be better off, with the rest of the country being no worse off.

However, in view of the importance attached to the phrase social exclusion, it is doubtless necessary to run through the definitions to see if any of the items therein are of particular relevance to travel.

The various activities given in the above definitions from which the socially excluded are denied full access will be taken in turn starting with the first definition.

Employment. The latter is of little relevance to pensioners, since a pensioner is almost by definition someone not in employment.

Income. For pensioners who chose to have their pension paid by means of direct debit, travel is irrelevant. For those who claim it at the nearest post office, travel is of relevance if the post office is beyond walking distance. But the change proposed here has little overall effect overall on pensioner's ability to travel to the post office or anywhere else.

Social networks. It is patronising and paternalistic to assume that all pensioners want to spend their money on "travel facilitated" social ising. They might prefer to spend the money on a range of other goods. Indeed some of the other goods include non "travel facilitated" socialising, e.g. phoning a relative o n the other side of the World once a week. Another example is getting or upgrading a computer, so as to be able to communicate with others in the various ways that can be done via computers.

Decision making. Presumably what is meant here are the decision making processes, like local authority committee meetings. If pensioners happen to be on local authority committees, they get travel expenses, so this is of no relevance.

Writing a letter to the press is a way of taking part in the nation's decisions. This is much better done by e-mail than by a traditional hand-written letter. PCs again!

Also, making a useful contribution to any communal decision making process requires access to information. It requires "search".

And what better way to do the two latter than a PC? And the proportion of pensioners who are computer literate will doubtless be rising sharply at the moment.

Quality of life. Like "social exclusion" itself, t he phrase "quality of life" is vague. But if anything, pensioners' quality of life is enhanced by the change proposed here for the following reasons. In a concession scenario pensioners in effect have a portion of their income confiscated and turned into a bus pass (nice if they travel on buses, and useless if they do not). In contrast, in a no concession scenario, pensioners can chose for themselves what to spend the above portion of their income on. This improves their "quality of life". The second definition is now co nsidered.

Economic exclusion. One of the main forms of economic activity is work, but this is precisely what pensioners tend not to do.

Another form of economic activity, of much more relevance to pensioners, is the purchase of goods and services. But shopping has been dealt with in detail above, particularly the need for pensioners to go shopping.

Political exclusion. This is largely synonymous with the phrase "decision making" in the first definition. This may be a statement of the obvious, but this article on travel concessions is political in nature, and was produced on a PC. And for a further statement of the obvious, producing this article required a large number of hours of search.

There are a whole range of items that improve one's ability to take part in political activity, apart from the ability to travel. Access to a phone and a computer are just as important as travel.

Cultural exclusion. Obviously some cultural items cannot be accessed without travel, like a concert, on the other hand many cultural items do not require travel in order to be accessed: mail order of books or CDs, for example. Thus it is far from clear that an absence of concessions thwarts pensioners' ability to access things cultural.

To summarise, far from travel concessions reducing social exclusion, it could well be argued that they increase social exclusion, thus there is no reason to think that abolishing concessions will increase involuntary social exclusion.

The Department for Transport's flawed cost-benefit analysis.

One of the many strange arguments for concessions appears in a Department for Transport document (14). This argument takes the form of a cost-benefit analysis which aims to support the case for concessions. This analysis, it should be said, is not presented as

part of some sort of pro-concession eulogy. The analysis appears in the middle of a typical Department of Transport document, that is fairly impartial, apolitical and non-committal. Nevertheless this flawed analysis needs demolishing. It contains three flaws.

Flaw 1: consumer surplus. Consumer surplus is a well established idea in economics. It refers to the difference between what a consumer actually pays for something and the maximum they would have been prepared to pay. In a sense, consumer surplus could be said to be the "profit" a consumer makes o n any purchase.

Now when a subsidy is introduced for public transport (or anything else), this is clearly a windfall for all those who were in the habit of buying the relevant product anyway. That is, the consumer surplus per item purchased rises by the amount of the subsidy per item.

The Department for Transport's cost benefit analysis counts this increased consumer surplus as a "benefit". But this is nonsense since one could apply exactly the same reasoning to a subsidy for brothels, fire-arms, dangerous drugs, you name it. If we subsidised brothels, no doubt the existing regular customers would be delighted with their increased "consumer surplus". This is not a n argument for subsidising brothels.

Flaw 2: the net change to consumer surplus. While it is true that subsidising anything increases consumer surplus in respect of the item subsidised, there is a problem: where does the money come from for the subsidy? If the money comes from taxes on other goods or services, this reduces consumer surplus on these goods or services, and by much the same amount as the above mentioned increase in consumer surplus. And if the tax takes the form of personal taxation, the effect is much the same. In short, consumer surplus is irrelevant to the merits or demerits of a subsidy.

Flaw 3: VAT Travel is zero rated for VAT purposes. As a result, much of the money that consumers save will then be spent on goods that do carry VAT. The net result will increased VAT receipts, which in the above analysis is counted as a "benefit". This is than added to the increased con sumer surplus, and hey-presto, the total figure for benefits exceeds the total figure for costs.

The flaw in this "VAT" argument is that VAT, like a ny tax, is straightforward transfer of money from people and firms to governments. This is not in itself any sort of cost or benefit for the community as a whole: it all depends on what government does with the money. For example if government collects tax and spends it on a war in Iraq which reduces Iraq to level of chaos for

the next ten years, a level of chaos worse than that under Saddam Hussein, where is the "benefit"?

The real reason for concessions: politics and psychology

Given the poor arguments for concessions, why do we have them? The real reasons are of course political and psychological and perhaps as follows. First, everyone loves subsidies. Everyone can work out who benefits from a subsidy. In contrast, less than half the population likes to admit that someone somewhere pays for subsidies. Subsidies are always easy to implement and invariably difficult to remove.

Second, the word pensioner has an instant emotional effect: sympathy. Mention the word pensioner at election time and enough crocodile tears flow down politicians cheeks to keep the Niagara Falls flowing.

Third, everyone can envisage the concept "travel". No doubt even dogs and cats can envisage the concept "person moving from point A to point B".

Now put items two and three together and you have the perfect storm: "helping pensioners to get around". This has vastly more em otional appeal than the really important question which is "how do we maximise the benefits or utility from all goods and services including travel?". If you are in the business of winning votes at election time it is complete no-brainer which of the latter two to go for. Even as regards the politicians who are half aware that concessions are a nonsense, and that is probably less than half of them, they would be wasting their time delving into the matter. The words "bread" and "circuses" come to m ind.

The above points would in practice make it difficult to abolish concessions. In order to have a rational and fair nation-wide policy towards pensioners, central government would have to ban pensioner travel concessions, and then incorporate the money saved in the old age pension. After a few years, local politicians would then start trying to ingratiate themselves with voters by re-introducing purely local concessions. Central government would have to try to stop such concessions. The latter local politicians would then be able to play "victim", which would br ing them even more votes. In short, the whole ridiculous pensioner travel concession business would probably start all over again.

Conclusion

The case for pensioner travel concessions varies from the hopeless to the poor depending on which types of travel and which

geographical areas are concerned. The case for concessions on long distance rail and coach is hopeless.

The case for such concessions in rural areas is also hopeless: there is little public transport there. As to urban areas, the case for concessions is better, but still feeble.

Finally there are two trends which have and will tend to make the abolition of concessions a logical move. First, bus usage has declined over recent decades and car usage has increased, a trend that will presumably continue. This will make concessions increasingly questionable.

Second, prior to 2000/1 there was no nation-wide uniformity in the provision of concessions: some local authorities had them and some did not. As from 2000/1, all local authorities had to provide at least a 50% fare reduction for pensioners. Then in his budget statement in March 2006, Gordon Brown said the government would introduce free concessionary travel in all areas. This move towards nationwide uniformity makes concessions more a matter for central rather than local government. This in turn makes it logical to compare concessions to the other systems administered by central government, like pensions and means tested benefits for pensioners. Though, to repeat, whether abolishing concessions is politically possible is a moot point.

Notes

Footnote 1

Suppose off-peak fares for pensioners are a fifth the full fare (0.2) and off-peak fares for everyone else are half the full fare (0.5). Now consider all the people, including pensioners, who think it is just worth making a journey during the off-peak rather than during the peak. Also assume the peak period fare for the journey is £1. The above mentioned pensioners clearly think the additional benefits of travelling during the peak would have been fractionally under £0.8 (£1 - £0.2). In contrast, the above mentioned younger travellers think the benefits of travelling during the peak would have been fractionally under £0.5 (£1 - £0.5). Now given this scenario there is a very simple way of increasing the total benefits derived from transport without spending a single additional pound on transport: this is to fractionally raise the off peak fare for pensioners and reduce the off peak fare for everyone else. To keep things simple, say as a result of this fare change the only effect is that one pensioner decides to travel during the peak, and one younger person decides to travel during the off-peak. Also, to keep things simple, assume the total number of off-peak travellers is equal to the number of peak time travellers. The additional benefit the pensioner gets from the journey is £0.8 (or to be accurate, fractionally under £0.8). The reduction in benefit that the younger person derives from their journey they consider to be £0.5, (or to be accurate, fractionally thereunder). Result: the community as a whole has gained £0.8 - £0.5 = £0.3.

Note that as a result of the above change, total fare receipts by the transport operator remain unaltered, and the total costs of running the transport system also remain unaltered.

As will hopefully be obvious, the above gains can continue to be reaped until the ratio of peak to off-peak fares for pensioners and younger people is the same. In short, there is no sense in having the "peak to off-peak" ratio for one group of travellers any different to that of another group.

In answer to the above argument, it could be claimed that money is worth more to pensioners than non-pensioners, and that to obtain the above mentioned additional benefit, the above pensioner has had to sacrifice £0.3 in cash, while the non-pensioner gains £0.3 in cash. In short, money has allegedly been transferred from the poor to the rich which partially or wholly outweights the above £0.3 benefit. However, this argument has two flaws, as follows.

First, it is questionable as whether pensioners are all that badly off nowadays. The proportion of pensioners with incomes below 60% of the median is now slightly lower than for the population at large (18).

Second, the fact that it is desirable to have a more equal distribution of income than would obtain in a totally free market is precisely why we devote astronomic sums to redistributing from the rich to the poor via the social security system. It is why we have another device called "income tax", the purpos e of which, amazing this, is to redistribute income. Indeed the latter systems are much fairer and more efficient for achieving

the desired results than fiddling around with train or bus fares. Redistributing wealth by donating just to pensioners who happen to travel frequently makes about as much sense as handing out money to all poor people taller than 1.6m high. The decision as to how much wealth to redistribute is a decision taken at election time. It is not a decision for transport operators. That is, the latter, in making decisions about off-peak fares ought to ignore wealth redistribution.

Footnote 2

The Department for Transport gives –0.4 as being th e national average elasticity (21). A Leeds Institute for Transport Studies work cites a 40-50% increase in bus travel by pensioners when London introduced its free travel concession. Some research in Scotland (9) indicates the increase was 20-30%. But the two latter were as a result of an increase from half fare concessions to free travel. On the basis of these studies elasticity would be significantly more than –0.4.

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5. The flaws in Keynesian borrow and spend

Definitions

The word government refers here to government and central bank combined, unless otherwise stated. That is not to suggest that independent central banks are a bad idea.

The phrase "print money" does not refer just to physical printing of bank notes, but to the more general concept: creation by banks of money out of thin air.

Only countries that issue their own currencies are considered below. The points made below have obvious implications for common currency areas, like the Eurozone, but these are not considered.

The words stimulus and reflation are used as synonyms.

Introduction

One of the main points made by Keynes was that in a recession, governments should borrow and spend. However, it has long been known that an alternative is for government to simply create extra money and spend it without borrowing. Indeed, Keynes (1933) himself made the point. To quote him: "Individuals must be induced to spend more… through the expenditure of borrowed or printed money."

Unfortunately, the merits of "print and spend" seem to have been half forgotten. As Hillinger (2010) put it, "An aspect of the crisis discussions that has irritated me the most is the implicit, or

explicit claim that there is no alternative to governmental borrowing to finance the deficits incurred for stabilization purposes. It baffles me how such nonsense can be so universally accepted. Of course, there is a much better alternative: to finance the deficits with fresh money."

The purpose of this paper is first, to reiterate some of the arguments in favour of "print and spend". A second purpose is to argue that print and spend is not just an alternative to borrow and spend, but is actually a superior policy. A third objective is to take the argument still further, and argue that print and spend is superior to the main conventional method of regulating demand and inflation, namely altering interest rates.

For the benefit of those under the illusion that inflation necessarily results from money supply increases, there is a section near the end of this paper dealing with this point. Also, in advocating print and spend, it is not suggested that governments will increase their countries' money supply EVERY year. Given excess demand and inflation resulting for example from "irrational exuberance", governments will from time to time need to do a "reverse print and spend", that is run budget surpluses and rein in money.

The flaws in borrow and spend

Six flaws in borrow and spend are now set out.

1. When government borrows, it borrows something (i.e. money) which government can create in limitless quantities any time. To borrow something which one can create oneself in limitless quantities and at no cost is pointless. It is worse than a dairy farmer buying milk in a shop when there is a thousand litre tank of milk a few meters from the farmer's house. At least the dairy farmer has the excuse that the milk in the tank cost SOMETHING to produce.

In addition, where government borrows monetary base, as distinct from commercial bank created money, government borrows something which government itself created in the first place.

Wright Patman, (chair of the House of Representatives Committee on Banking and Currency (1965–75)), made much the same point in the following way (Patman, 1941).

"When our Federal Government, that has the exclusive power to create money, creates that money and then goes into the open market and borrows it and pays interest for the use of its own money, it occurs to me that that is going too far. I have never yet had anyone who could, through the use of logic and reason, justify

the Federal Government borrowing the use of its own money... I am saying to you in all sincerity, and with all the earnestness that I possess, it is absolutely wrong for the Government to issue interest-bearing obligations. It is not only wrong: it is extravagant. It is not only extravagant, it is wasteful. It is absolutely unnecessary."

2. A second strange aspect of borrow and spend stems from the fact that the whole object of the exercise is stimulus. But the borrow part of borrow and spend involves withdrawing money from the economy, the effect of which is deflationary: the opposite of the desired effect (as others, e.g. Dillard, 1948, p.110, have pointed out). In short, borrow and spend is a bit like throwing dirt over your car before cleaning it: the dirt probably does not a huge amount of harm. It is just pointless.

3. Another questionable aspect of borrow and spend is that additional borrowing will at least on the face of it raise interest rates, which will tend to crowd out private sector borrowing and spending. There is of course some argument as to the extent of this crowding out, but certainly the risk is there. And that crowding out is exactly what is not needed in a recession. To counteract this undesirable effect, governments make sure that interest rates do NOT rise, by buying up government securities. Indeed, most governments in a recession go even further and actually reduce interest rates.

Now when government, 1, borrows, 2, issues securities and, 3, prints money with which to buy those securities, it is in effect engaged in print and spend rather than borrow and spend. This is a charade. That is, when governments claim to be engaged in borrow and spend, they are actually engaged, at least to some extent, in print and spend. And in this scenario, it is legitimate to ask what really has the reflationary effect: borrow and spend or print and spend?

Moreover, since the two polices both have a reflationary effect, one has to wonder what the point of borrow and spend is. That is, is borrow and spend much more than a paper chase?

Incidentally, it is not suggested here that borrow and spend has the same effect dollar for dollar as print and spend. The latter is doubtless a more potent weapon than the former, thus for a given stimulatory effect, a smaller dosage print and spend is needed than borrow and spend.

4. Another nonsense behind borrow and spend is that if borrow and spend has a stimulatory effect, then presumably the opposite of borrow and spend, namely collecting extra tax and repaying the debt, has an equal and opposite effect. There is thus no

PERMANENT effect. That permanent effect may or may not be needed. That is, the advocates of borrow and spend sometimes claim that borrow and spend just has a "pump priming" effect, and that is all that is needed.

However, if something more than a pump priming is needed, that is, if a PERMANENT effect is needed, borrow and spend will not produce it, without as a side effect, producing a permanently expanded national debt.

In contrast, print and spend DOES have a permanent stimulatory effect: the private sector has a permanently increased stock of money, which induces that sector raise its spending on a permanent basis.

5. There is a sense in which all demand deficient unemployment is paradox of thrift unemployment. This is not to say that the initial cause of every recession is an increased desire by the private sector to save. But certainly the desire to save played a big role in the

1930s recession and in the current recession. That is in both cases, private sector balance sheets were damaged, which entirely predictably caused private sector entities to try to make good their balance sheets by saving more.

Moreover, even if increased private sector saving has nothing to do with a recession, the way out of recessions is to have both public and private sectors spend more (assuming the aim is to have the proportion of GDP consumed by each sector to remain roughly constant). As to the public sector, it is not difficult to arrange this extra spending: just have government create more money and spend it.

The private sector is different, in that private sector entities cannot be ordered to spend a specific sum of money in a given period of time. Thus governments resort to numerous ways to inducing the private sector to spend: "cash for clunkers" or government backing for mortgages are just two examples.

But a weakness in any measure targeted on specific products (as in the above two examples - cars and houses) is that they are market distorting. However, market distorting measures are unjustified unless it can be shown that the market itself is distorted in some way, which would justify a countervailing distortionary measure (or perhaps "anti-distortionary measure" would be a better phrase). And it is unusual for governments to consider (never mind demonstrate) what market distortions might need rectifying before introducing their own weird selection of distortionary measures. That is, much the most common reason for implementing market distorting measures is that they have populist appeal: they win votes.

For example “Cash for clunkers” is a simple idea which every voter understands. And government backing for mortgages is bound to win votes. If the latter results in ridiculous “no income no job” mortgages and credit crunches many years later which do catastrophic economic damage, that will not worry the politicians who introduce the measure.

At any rate, should some unusually wise government want to induce the private sector to spend more in a non-distorting way, about the only way of doing so is simply to boost private sector incomes and/or feed extra assets to private sector pockets. This ought to raise private sector spending for two reasons. First, a rise in household incomes induces households to spend more. Second, household assets expand, which has the same effect.

Now for the question as to what form these extra assets should take. In the case of borrow and spend, the private sector is supplied with extra assets in the form of government bonds, which pay interest. In contrast, in the case of print and spend, the private sector is supplied with additional assets which pay no interest, that is cash. Which of these two is the better?

Well, there is no need to pay interest on those assets because the private sector actually WANTS or NEEDS those assets if it is to be induced to spend at a rate that brings full employment!

Conclusion: borrow and spend involves government in paying interest, when there is no need to. To that extent, print and spend is a better policy.

Having concluded that borrow and spend involves paying unnecessary interest, this is NOT to suggest that governments should NEVER pay interest on borrowed sums.

The above point regarding unnecessary interest is applicable to where government borrows for stimulus purposes. It is NOT applicable to where government borrows as a substitute for taxation.

To illustrate, if an economy is at full employment, the private sector will almost by definition have the stock of assets which induces it to spend at the “full employment” rate. And in this scenario, if the private sector is to be induced to abstain from consumption so as to make room for extra public sector spending, the private sector has to be induced or forced to engage in the latter abstinence.

Tax is the “force” option, and paying interest on borrowed money is the “induce” option. And there is no avoiding the need for a financial inducement in the latter case: that is, there is no way of escaping the need to pay interest.

But to repeat, where stimulus is the objective, there is no need whatever to pay interest! To that extent, borrow and spend with a view to stimulus is a flawed policy.

6. The final undesirable aspect of borrow and spend is that it expands the national debt, and the larger the national debt, the more of such debt is likely to end up in the hands for foreign entities. Borrowing from abroad CAN make sense. But paying interest to foreign lenders when (as pointed out above) no interest needs to be paid, is even more pointless than paying such interest to natives.

Should interest rates be used to regulate economies?

A possible objection to the above anti borrowing arguments is that it implies an abolition or near abolition of government borrowing, which in turn might appear to make it difficult for governments to adjust interest rates, because governments effect these adjustments by buying or selling government stock.

To be more accurate, the fact of not engaging in borrow and spend for stimulus purposes does not rule out borrowing as an alternative to tax. But the arguments for the latter are about as feeble as the arguments for borrowing for stimulus purposes (see Musgrave (2010) and Kellerman (2006). Thus there is a good argument for abolishing or reducing ALL forms of government borrowing.

So would a reduced supply of government stock make interest rate adjustments more difficult, and if so, would this matter? There are various reasons, as follows, for think that the answer is a "double negative".

First, using interest rates to adjust demand is distortionary, since it works only via entities that are significantly reliant on variable rate loans. It is true that changes in the level of activity by these entities ultimately affects or "trickles down to" other entities. For example, given an interest rate cut, additional activity by the former entities will ultimately trickle down to other entities. But that is not ideal.

In particular, by the time the trickle down is half complete, it is possible the economy is suffering excess demand and inflation, and stimulus from any further "trickle down" is exactly what is NOT needed.

Incidentally, having criticised interest rate adjustments for their undesirable delayed effects, it should be admitted that print and spend has undesirable delayed effects which could be equally bad. That is, a proportion of any additional cash fed to the private sector

will be saved, and may be spent exactly when additional spending is not desirable: in an inflationary boom.

In contrast to the DELAYED effects of different policies, and getting back to the INITIAL effects, it is relevant to ask whether print and spend would be less distortionary than interest rate changes. The answer is that with a little ingenuity, the INITIAL effects of print and spend can be almost distortion free.

For example, a payroll tax cut would benefit EVERY employer and employee in the country. That is quite a big chunk of the economy! Admittedly a payroll tax change leaves out pensioners, those on social security, and perhaps some other groups. But with a little ingenuity these groups could be catered for.

A second reason for thinking a reduced supply of government stock would not matter stems from the fact that there must be some optimum amount of investment in any economy per dollar of GDP. And for a given state of technological development and so on, a plausible assumption is that this "investment per dollar of GDP" will not change given a small change in GDP.

Now the purpose of an interest rate reduction, for example, is to expand the economy a small amount. But the rate reduction will also increase the amount of investment per dollar of GDP: totally illogical!

In fact, interest rate changes are arguably even MORE illogical that the above two paragraphs suggest. Reason is that given excess unemployment, if there is to be any change in the amount of investment per head (or per dollar of GDP), there should arguably be a REDUCTION in the amount of investment per head. Put another way, given excess unemployment, there is arguably merit in encouraging employers, at least temporarily, to employ MORE people for given investment, not LESS!

Third, there is an obvious and serious distortion resulting from low interest rates: asset price bubbles. And in the case of housing, there is the already mentioned catastrophic economic damage that can be done when these bubbles burst.

A fourth reason for thinking a reduced number of or volume of government bonds would not matter is that the fact of not borrowing for stimulus or "substitute for tax" purposes does not rule out borrowing specifically so as to influence interest rates. (As pointed out by Abba Lerner). Indeed, where a government wanted for example to damp down demand by raising interest rates, the effect would come not just from the increased rates. Such a government would announce a willingness to borrow at a higher rate than the prevailing rate. That in turn would withdraw funds from the economy, which (as pointed out under the second

objection to borrow and spend above) is deflationary. At least that would be the effect, assuming the money borrowed is not spent.

Fifth and finally, "zero government borrowing" monetary system was set out by Friedman (1948), which suggests that an absence of, or much reduced supply of government securities would not be a problem.

The conclusion is that a reduced supply of government securities resulting from a print and spend policy would not make it significantly more difficult for governments to raise interest rates. And even if it did make it more difficult, that would not matter in that print and spend is a superior policy to interest rate adjustments.

A counter argument

It could be argued that the costs of borrow and spend are not all that great, in that while this policy IS a pointless paper chase, the costs of paper pushing as a proportion of GDP are small. (Not a strong argument in view of the astronomic costs of the average country's bureaucracy, but never mind!)

However, against that, there is a real and more serious problem as follows. An ever expanding national debt, or a national debt that expands relatively fast, causes a significant number of influential people to campaign for cuts in government spending (or tax increases). The two latter DO HAVE serious economic consequences: the result is a decline in demand in real terms, and means unnecessary unemployment. And this is a very real problem in the U.S. at the time of writing.

Another possible counter argument is that the requirement for government to borrow from its central bank prevents politicians having direct access to the money printing press. (Government and central bank are treated as separate entities here, as distinct from the usage adopted elsewhere in this paper, namely treating the two as the same entity).

The effects of government borrowing from its central bank are very different from where the two treated as one unit borrow from the rest of the economy. At any rate, is there even much to be said for government borrowing from its own central bank with a view to keeping a distinction between the two?

The answer is "no" because it would be quite easy to frame a set of rules suitable for a "zero borrowing" economy where was nevertheless a clear distinction between government and central bank. For example the rule could be that government must work on the assumption that its spending shall equal what it collects in tax. While the central bank is responsible for inflation (as most central

banks currently are), and controls inflation by allowing government additional funds where, for example, unemployment is excessive and inflation is subdued.

Printing money does not necessarily cause inflation

Having argued the case for print and spend, objections may be raised to the effect that printing money necessarily means inflation. Readers who have a grasp of when money printing does and does not cause inflation can stop reading this paper now.

Printing money does NOT cause inflation to the following extent.

1. As economies expand, all other things being equal, they require an expanded money supply. To illustrate, the money supply of the U.S. is (amazingly) much bigger than that of Liechenstein or Andorra.

2. An expanded money supply is NOT inflationary until it is actually spent (as pointed out by Hume (1752) and by Keynes (1933) and numerous others.) For example if I print a million tons of £50 notes and hide them down a disused coal mine and don't tell anyone what I've done, the effect on inflation would be zero.

And the latter is an illustration which is very relevant to the basic argument in this paper. That is, it was argued above that where the private sector is trying to save extra cash, government needs to print extra cash so as to supply the savings that the private sector requires. That extra cash will not have a big effect until the private sector finds it has TOO MUCH cash. Whereupon there WILL be an effect on demand, and possibly an effect on inflation.

It is of course possible that the private sector will react to an increased money supply by ASSUMING that any money supply increase will cause inflation, and factoring in this inflation into wage agreements, prices of products and so on. However this is totally unrealistic. That is the idea that the average household keeps an eye on the monetary aggregates is fanciful.

The above is typical of the sort of totally unrealistic idea proposed by academic economists with a view to keeping themselves employed at the taxpayers' expense.

Plus the evidence does not support the latter idea. For example the U.S. monetary base expanded by an astronomic and unprecedented amount in 2009. The economically unsophisticated were screaming "Mugabwe" and "Weimar" as a result. The actual effe ct of that base increase eighteen months later (at the time of writing) is approximately zero. And as regards the future, yields on U.S. long term government stock, at the time of writing, are at

record lows, thus the markets are not factoring in rampant inflation any time soon.

3. A significant amount of money printing is made necessary simply as a result of the widely agreed idea that inflation of around 2% is optimum (as opposed to 4%, minus 2%, or any other figure). Reasons are thus.

First, inflation of 2% reduces the real value of the money supply by 2% a year. That depreciation requires money printing simply to keep the value of the money supply constant in real terms (never mind, as pointed out above, the money printing required to keep the real value of the money supply expanding at the same rate as the economy).

Second, assuming a country has a national debt, and that that debt is to remain more or less constant in the long term as a proportion of GDP, further money printing is required to keep that proportion constant. Put another way, that "real term" proportion will not remain constant if the national debt is not expanded in nominal or "dollar" terms. And that in turn requires and expanded stock of dollars (in the case of the U.S.).

All in all, a fair amount of money printing is required simply to "keep things constant".

The net result is that most years there will be a net expansion in the money supply. It is only during the occasional burst of excess demand (perhaps resulting from "irrational exuberance") that government will run a surplus, i.e. need to rein in money and actually REDUCE the money supply.

4. Governments up to about ten years ago tried to control inflation by controlling the money supply. It didn't work because (with the exception of lunatic Mugabwe type money supply increases) there is little relationship between money supply changes and inflation. At least the relationship is too feeble to make the above inflation control tool a useful one.

5. In the particular case of quantitative easing (of government stock), this is often classified as "money printing". And certainly the monetary base rises by $X for every $X of government stock QEd. But QE consists essentially of giving holders of one form of government liability (bonds) another form of government liability (cash). To put it in another and figurative way, one type of valuable bit of paper is swapped for another type of valuable bit of paper. Apart from boosting asset prices, and possibly causing asset price bubbles, there is little reason to suppose this will have much effect on anything: demand, inflation or anything else.

Conclusion: the idea that a money supply increase automatically causes inflation is grossly over simple. To gauge the

inflationary effects, it is necessary to look at several factors. Three of those factors are as follows (but there are doubtless several more). 1, the state of the economy. That is, is the economy in a state of excess unemployment and subdued inflation or is it suffering labour shortages and excess demand? 2, Who are the recipients of the additional money: people likely to spend it, or people likely to save it. 3, Does the money supply increase result (as in the case of QE) simply from swapping one asset (bonds) for another (cash)?

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6. The infrastructure and other costs of immigration

Since 2002, the British Government department responsible for immigration, the Home Office, has claimed immigrants pay £2-5bn more in tax than they withdraw from the public purse. The workings behind this figure omit the cost of the additional infrastructure investments that immigrants necessitate (no small omission).

The conventional wisdom is that funding government owned assets is a burden on the community at large, whereas funding private sector business assets is not. However the distinction between public and private sectors is artificial. Thus funding the private sector investments is just as much a burden on the community as funding the public sector. Thus it is the community at large funds the additional private sector business assets that immigrants necessitate. The important distinction is not between public and private sector assets, but between what might be called "communally used" asse ts (public and private) and assets which only one person or family benefits from, of which housing is much the most important. That is, the community at large does not pay for immigrants' housing: immigrants themselves do.

Assets other than housing in the UK amount to about £30,000 per head. The investment burden on the community is around double this because the typical immigrant has one child shortly after arriving. Immigrants do eventually pay this back – after about

a generation. But by that time i nterest on the debt (which is not paid back) resembles the debt itself.

Having arrived at a figure for the investment burden that immigrants impose, there is then the question as to what effect this has on the overall contribution that immigrants make, or burden that they impose. Answering this question involves answering a number of subsidiary questions about what can and cannot be debited to immigration. The four main subsidiary questions are thus.

1. Should the cost of educating immigrants' children (£7.6bn a year) be attributed to immigration? The Home Office, Migrationwatch and others have disagreed on this for some time. It is shown that Migrationwatch is right: these educational costs should be attributed to immigration.

2. In past years, some Government current spending (as opposed to capital spending) was financed by increasing the national debt. Are immigrants (who have not benefited from this spending) effectively paying interest on this part of the national debt? If so, this would be unfair. It is shown that immigrants are not in fact paying for this past current spending.

3. Several studies have recently claimed that immigrants reduce interest rates. These studies all make the same mistake: they assume that interest rate reductions are the only weapon that governments have to raise demand with a view to employing extra workers (immigrants). In fact it is an expansion of the monetary base over the decades and centuries which has created the extra demand that immigrants necessitate. Moreover, interest rates have to rise a finite amount in reaction to immigration because someone somewhere has to forgo consumption to fund the additional investments that immigrants necessitate.

4. Do remittances reduce real incomes for natives? It is concluded that they do.

The final figure for the cost imposed on UK natives by immigrants (about £12bn a year) is tentative, first because quantifying the variables that produce the £12bn is more informed guesswork than accurate measurement. Second, some of the official figures on which the estimate is based could be inaccurate. For example, there is evidence that the official figure for the total value of all assets in the UK could have been underestimated by 100% or more; and the real figure for remittances could conceivably be ten times the official figure. In short the cost imposed on UK natives by immigrants could easily be half or double the above £12bn.

Definitions

Immigrant: someone born outside the UK who is now resident in the UK (apart from those born abroad and given British citizenship because their British parents were living abroad only temporarily at the time of birth).

Native: A non immigrant: for the most part, people born in the UK, residing in the UK and having UK citizenship. Also included are the above born abroad, but with British parents.

UK national: A person holding or entitled to hold a British passport, including immigrants entitled to hold one.

Introduction

Since 2002 the Home Office has claimed that immigrants pay more in tax than they withdraw from the public purse, sometimes called a "fiscal surplus". This claim is based mainly on a Home Office publication (Gott, 2002). Gott put this surplus at £2.5bn a year.

The latest Home Office publication to repeat the claim was a Government submission to a House of Lords Select Committee on Economic Affairs in late 2007. (see "Home Office" under references below). This Home Office submission will be called "HO". The phrase "Home O ffice" will still be used in the normal sense of the phrase.

Publications are normally referred to by their author. But no author is given for HO. This is probably because of because HO is political in nature: Government economists were probably reluctant to put their name to a publication so clearly slanted in favour of immigration. (Evidence on the political influence behind HO is in endnote 1).

An Institute of Public Policy Research (IPPR) work published in 2005 (Sriskandarajah), repeated Gott's calculations, and found that the fiscal surplus had increased in the intervening years.

The whole fiscal surplus idea is unsatisfactory in that Government in some years disburses more money than it receives; while in other years it is the other way round. In whatever year the fiscal surplus is measured, the latter point complicates the issue. Sriskandarajah solved this problem by measuring the fiscal effect of immigrants relative to that of natives. Page 11 of the IPPR work, for example, gives the annual net fiscal cost of the average immigrant in 2003-4 as £74 compared to a cost of £892 for natives, a difference of £818.

Multiplying the £818 by the 6 million or so immigrants in the UK means that the £2.5bn has risen to around £4.9bn. This £818 "fiscal differential" certainly makes imm igrants look good – until

the explanations are examined. The explanations have little to do with outstanding productivity or hard work by immigrants. Immigrants who work, earn slightly more than the average native who works; on the other hand a significantly higher proportion of natives go out to work than do immigrants. As a result immigrants earn about 4% less per person of working age than natives. In short, hard work or productivity is not the explanation.

One explanation is that immigrants tend to concentrate at the top and bottom end of the pay scales, and those at the top pay more tax as a proportion of income than those below them on the pay scales. Immigrants from the English speaking developed world are concentrated at the top and those from the developing world at the bottom. The former earn about twice as much per person of working age as the latter. In short, the immigrant fiscal differential is largely explained by a bunch of people who UK natives scarcely regard as immigrants: the Irish in particular! (The source of these earnings figures for national groups is in endnote 8).

Thus the fiscal differential is a less impressive phenomenon than it might seem at first sight. And if the alleged fiscal differential is, as per Home Office reasoning, an argument for immigration, then presumably the poor showing of third world immigrants is an argument against immigration from the third world. But worse than that, as is shown in the pages below, the fiscal differential does not even exist. To be more exact, while the £2.5bn differential with which we started above was in favour of immigrants, the differential with which we end up below is in favour of natives, and mainly because of the big contribution natives make to the infrastructure and other investments that immigrants necessitate.

The pages below are sceptical about the benefits of mass immigration. No objections are raised against migration which alleviates genuine skill shortages in the host country. In contrast, mass immigration simply adds to the number of people in a country, which in the case of the UK is already about the most densely populated in the world. Indeed dealing with genuine skill shortages should not on its own result in significant net immigration since the number of skill shortages in other countries which Brits can alleviate should more or less equal the number of skill shortages in the UK that foreigners can alleviate.

The additional investments that immigrants necessitate.

The following pages are not the first attempt to calculate the cost of these investments. Scholefield considers this subject. But the subject is given a more detailed treatment here than Scholefield

gave it. Also his calculations are a bit questionable (see endnote 2.) However, the final result of his calculation is of the same order as the result produced below.

Another publication whose author is obviously aware of this extra investment point is Migrationwatch's Briefing Paper No 1.2. However this publication does not quantify the costs. To summarise, there is work to be done on this extra investment point.

Having said in the introduction above that Gott and Sriskandarajah do not take additional investments into account, it is not a hundred percent certain that they omit it. Both publications set out the general principles behind their calculations, but the detailed calculations do not seem to be available. Both the Home Office and IPPR were approached in preparing this paper with a view to examining the detailed calculations. Neither organisation produced these workings. Indeed, for this reason, both publications must be taken with a pinch of salt. However there is not the slightest sign in these publications of the additional investment point having been taken into account.

The only sense in which Gott takes account of infrastructure is that he does attribute to immigrants what he sees as their fair share of interest on the national debt (p.30). But this misses the point, or rather two points. First, the national debt covers only publically owned assets, that is, the private sector is ignored. Second, it misses the above point about the extra infrastructure and other investments that the entire community has to pay for when immigrants arrive.

A possible objection to the latter argument is that Gott and Sriskandarajah are concerned only with the fiscal effects of immigrants, which means ignoring the private sector. There are four answers to this.

1. A substantial proportion of the country's investments are in the public sector, and extra people necessitate extra investment in this sector. This clearly has fiscal effects: effects overlooked by the above two publications.

2. The relevance of the alleged fiscal surplus is that it amounts to a gift by immigrants to natives. If "gifts between the two co mmunities" are the fundamental point, it is illogical then to ignore private sector "gifts".

3. The distinction between the public and private sector is artificial. For example numerous functions once performed by the UK Government, which were paid for out of "tax", have now been privatise d. Thus payment for these services is no longer called a "tax". So far as ec onomics goes, the distinction is near meaningless.

4. It could be argued that if the private sector is to be included, every single economic influence of immigrants might as well also be included, which leads to excessive complexity. The answer is that Gott, HO and Sriskandarajah in fact discusses numerous other economic influences of immigrants, but fail to quantify them for want of evidence as to the magnitude of the effects. That is, they quantify what can be quantified: a rational strategy.

To summarise, the argument so far is first, that the concept "fiscal surplus" should be broadened to include the private sector. Secondly, the concept should apply to the difference between the effects of immigrants and natives. Thus a new phrase is required to describe the new concept. The phrase *net immigrant effect* will be used (in italics).

In fact, there is surprisingly little reference to either "fiscal surplus" or " *net immigrant effect*" below, and where references do occur, they occur in the context of discussing publications which deal specifically with the concept "fiscal surplus". Thus the phrase fiscal surplus i s used more frequently than *net immigrant effect*. This might seem confusing, but it is unimportant because any change to the fiscal surplus (as will be apparent from the above paragraphs) is automatically reflected in the " *net immigrant effect*". For example, subtracting £1bn from the fiscal surplus also means subtracting £1bn from the *net immigrant effect*". This is because the latter is a simple function of the former.

Additional investments are funded largely by natives.

When immigrants arrive, they make a fair contribution to depreciation on, and replacement of the assets that exist when they arrive. They also make a fair contribution to interest on debt incurred to buy such assets. Immigrants do this whey they pay taxes, and for example buy rail tickets or bus tickets. But they don't pay for all the extra investments their arrival necessitates. To illustrate, they do not pay a capital lump sum in respect of the additional roads or railtrack they necessitate, nor do they make a specific payment in respect of any rise in interest rates required to attract the savings needed to fund these additional investments. This extra or initial investment necessitated by immigrants is paid for largely by natives.

The latter suggestion that immigrants raise interest rates conflicts with the studies regularly published claiming immigrants reduce interest rates (e.g. Blanchflower or Hawksworth or Ernst & Young).

The whole question of immigration and interest rates is examined in more detail in endnote 3 below, but briefly the

argument in this endnote is that in practice it is an expansion of the monetary base over the decades which has created the additional demand that immigrants necessitate (both in the US and the UK), and not interest rate reductions. This point is overlooked in the above three studies. Moreover interest rates have to rise because someone somewhere has to be induced to forego consumption to fund additional investments.

Most investments public and private can be debited to immigration

Not all the additional investments that result from immigration can be debited to immigration (i.e. added to the hypothetical debt that immigrants owe natives). When investments are made as a result of immigration, the foregone consumption or loss of real income for natives varies as between different types of asset: public, private and so on. It also varies with the way investments are funded. Investment scenarios which clearly result in a straight real income reduction for natives will be considered first. Then scenarios, where the effects are more debatable will be considered, in particular housing.

If Government funds new public sector assets out of tax (rather than by increasing the national debt), the effect is a straight increase in tax for everyone. All taxpayers (including immigrants who arrived a few years ago) forgo current consumption: everyone is initially worse off.

As distinct from using **tax** to fund public sector investments, a more realistic assumption is that they are funded by expanding the national debt. The latter is in practice what Government tries to do: fund investments out of the National Debt and current spending out of tax. The only difference between the two scenarios is that instead of grabbing the whole capital sum from the population in one year, Government borrows the capital sum and spends the next few decades grabbing enough from the population to pay the interest and the ultimate capital repayment.

As to exactly how many years or decades are involved, it seems that the average asset in the UK is written off over about 33 years. National Statistics (1, table 3.3.2) gives the UK's annual capital consumption as £140bn compared to a gross capital stock for the UK of £4,650bn (table 2.1.1). Thus 4,650/140 = 33 years.

As distinct from Government, businesses also require additional capital when immigrants arrive, thus they also borrow more. It is generally accepted that immigration boosts profits. But there is a sub-plot here, not so frequently mentioned: businesses raise prices, not just to boost profits, but also so as to pay for interest on money

borrowed to fund new investments. Alternatively they offer shares on which dividends have to be paid. This process is not much different from the above Government strategy of taxing the population so as to fund new investments.

Against the latter point it could be argued that businesses are in a free market and are thus cannot extort money in the same way as governments. However it is widely accepted that immigrants temporarily raise profits at the expense of consumers. This is what might be called a temporary non free market scenario, or to put it in economics jargon, profits are temporarily raised above normal. (In economics it is accepted that in a rapidly changing or unstable environment, some or all firms can exploit the situation and raise profits. In contrast, in a stable environment, firms will tend to make profits that amount to no more than a standard return on capital. The latter are often called "normal" profits.) When firms make "above normal" profits, consumers h ave no option but to pay the relevant increased prices. This is little different to where they pay up when Government raises taxes.

Finally, anyone not convinced by the latter argument on businesses must answer the question as to exactly who forgoes consumption so as to create immigrant investments. It is certainly not exclusively immigrants.

Most extra housing cannot be debited to immigration

Immigrants apply for mortgages, as do landlords who house immigrants. The effect is similar to where Government or businesses expand their borrowings and force an interest rate rise. That is, instead of Government or businesses outbidding others for savings, the immigrant or landlord attempts to outbid others. But the big difference is that interest and repayment of capital is charged specifically to the owner occupier or tenant (via the landlord). In contrast, with Government or businesses, the community pays.

A second important difference is that immigrants cannot extort money with which to pay interest, as can Government. As to comparisons with existing businesses, immigrants are not in a position to earn above normal profits. An exception here are the immigrants who themselves are entrepreneurs. However, unless these entrepreneurs arrive with the requisite amount of capital, they will need to borrow initially to set up their businesses. Thus these entrepreneurs will tend to dampen the above mentioned "super normal" p rofits, but they will not dampen the interest rate rise.

Having said that immigrants essentially fund their own houses, this is not to say that the extra housing is totally cost free for the

host community. Immigrants have certainly helped raise house prices in the UK to the point where thousands and first time buyers cannot afford to buy. The additional demand for mortgages also raises interest rates, which is not cost free (repossessions, etc). Moreover people often go to extreme lengths to prevent houses being built on countryside they overlook or on playing fields their children use. These people clearly regard additional housing and other development associated with an expanding population as a severe cost.

It might be argued that public or social housing is not all that different to private housing in that while this form of housing tends to be subsidised, tenants nevertheless foot most of the bill. Thus, arguably, public housing should be excluded. Against this, however, the effect of immigrants buying houses, is far from cost free for natives. Thus public housing will be included on the questionable basis that this balances the above sundry costs imposed on natives. Even if this questionable strategy is wrong, the consequences are not too serious: the total value of public housing is only around a tenth that of private housing, about £110bn compared to £1,042bn (National Statistics 1, tables 1.1.1 and 5.4).

Should gross or net investment figures be used?

National Statistics gives totals of all assets in the UK, first, at what NS calls a "gross" value. This is the "brand new" cost. Seco nd, figures are given for the value of these investments with a suitable amount written off on account of age or depreciation. These are called "net" figures. The net figures are periodically adjusted to reflect inflation and increased replacement costs.

It might seem that the gross figure should be used, (as Scholefield does). After all, if a number of immigrants arrived and we wanted to ensure no dilution of the capital investment to population ratio, a selection of almost exclusively new assets would have to be created. This is because while a particular person or organisation can buy second hand assets from another person or organisation, the country as a whole cannot for example suddenly add to its stock of fifty year old houses.

In fact the net assets figure is more appropriate for the following reasons. The country's investments range from the brand new to the worn out. And similarly when considering investment per head, a range of investments can be attributed to each person ranging from the brand new to the worn out. Now if the assets apportioned to a selection of people (e.g. immigrants) are to be made up only from new assets, these assets will be more productive per physical unit (e.g. per lorry, or computer) than older

versions of the same assets. Thus fewer physical units of the assets are required. In fact the value of assets required where all the assets are new will be much the same as where the assets range from brand new to worn out, and for reasons set out in a footnote[1].

In short the appropriate figure is the net asset per person figure, even if all the investments in a particular case are new.

Assumption 1: investments made when immigrants arrive

The total of all capital investments in the UK in 2006 was £2,835bn (National Statistics (1, table 1.1.1). Of this, £1,042bn consisted of private housing. Because of the above decision to ignore private housing, the appropriate total asset figure is the former figure less the latter, namely £1,793bn. The £1,042bn value of private housing clashes with a value of £4 trillion given by the Halifax Bank in January 2008. National Statistics do not include the value of land, but land normally accounts for about a third of the value of houses. Also publically owned houses are not included in the above one trillion figure, but publically owned housing only amounts to around £100bn, so there is still a large discrepancy here: up to 250%. If this 250% discrepancy, or anything like it applies to all assets, then the final figure below for the cost of immigrant investments will be a serious underestimate. However we will stick with the National Statistics figures.

Different assumptions can be made about when immigrant investments are made.

One assumption is that they are made when immigrants arrive. Indeed, if everyone were to enjoy the same investment per head after the arrival of a number of immigrants as before, then the relevant investments would actually be made on the arrival of the immigrants.

The above £1,793bn divided by the 60 million people in the UK gives a figure for investment per head of £30,000. The figure given in HO (p.5) for net immigration for the year ended mid 2006 is 190,000. Thus the total amount of investment required is 190,000 x £30,000 which equals £5.7bn a year. 190,000 also happens to be the figure given for expected net immigration in the near future by non-British nationals (p.7), thus 190,000 is not a bad figure to take.

Though clearly there will be arguments for some other figure.

[1] Assume that output obtained from an asset is closely related to its price. This is a not unreasonable assumption since if the "output over price" ratio of old asset s were above that of new assets, the market price of old assets would tend to rise till the above two ratios were equal again. It follows that the value of new assets required to get the output that comes from a given selection of old assets will be very similar to the value of the latter selection of old assets.

For those who are not happy with including the private sector, the equivalent calculations including just public sector assets are in a footnote.[2]

Returning to calculations for public and private sectors combined, since these calculations are dispersed at relevant points on these pages, all calculations are repeated in summarised form in Endnote 5.

Assumption 2: investments are delayed

Given the proverbial underinvestment in the UK (over-crowded motorways, etc), the above assumption that immigrant investments are made on arrival is unrealistic. The delay that takes place before investments are made might appear to be a saving. Unfortunately, the delay just results in the costs that come from underinvestment (over-crowding, etc). So how is the cost of not investing to be quantified? The answer is as follows.

It is widely accepted in economics that to maximise the benefit from an investment, the amount invested should be an amount beyond which further investment fails to bring a return. Also, investments, like everything else are affected by the law of diminishing returns. This means that if the amount invested falls short of the optimum by a small amount, the cost of "not investing" will be approximately equal to the latte r small amount over the life of the asset. (In fact, in view of the diminishing returns, the cost of not investing is a bit ***more*** then the cost of investing, a technicality which will be ignored).

In contrast, if instead of investing an inadequate amount over the entire life of an asset, the correct amount is invested, but after a delay, the cost per year's delay will be the cost of the asset divided by its expected life. For example, given that the average asset is written off over 33 years, if the delay is three years, costs are increased by 3/33, i.e. about 9%.

The free international movement of capital

A possible objection to the argument so far concerns the assumption that all money for investment comes from UK savers,

[2] The total of public sector assets is around £450bn. This works out at £7,500 per person. Multiplied by 190,000 that comes to £1.4bn. In the following pages, under "Adjustments to the investment figure" the figure for all assets including private ones is multiplied by 1.8 mainly because of the large number of children that immigrants have. Applying the same to the above £1.4bn, the latter multiplied by 1.8 is £2.5bn. That on its own cancels out the £2.5bn fiscal surplus with which we started.

when in reality capital moves quite freely across international boundaries.

One answer here is that many other developed countries are facing the same levels of immigration as the UK. Thus it is even possible that the total amount saved in the UK in respect of the capital requirements of immigrants actually exceeds that required to meet just the UK's needs because UK savers are making a contribution towards the "immigrant invest ment needs" of other countries as well as paying for most of the relevant investments in the UK. Moreover, even where investments are funded by money borrowed from abroad, this does not change the final outcome significantly. An investment funded by a loan from abroad constitutes a rise in demand in the UK, something the monetary authorities have to react to (at least this is the case where mainly UK labour creates the investment, e.g. builds a factory). That is, assuming demand is at maximum level that is consistent with acceptable inflation, then the additional demand that the investment involves will force the UK to constrain demand to balance this. In other words the UK monetary authorities will have to force the population to forego consumption, just as would have been the case had the investment been funded from UK sources.

Also, loans from abroad are not interest free: the interest still has to be extracted from the UK population. All in all, borrowing from abroad does not make much difference, thus it is reasonable, if not entirely accurate, to assume that the UK finances its own immigrant investment needs.

"Putting pressure on public services"...does this mean anything?

It is often said that immigrants put "pressure on p ublic services". Immigrants do not, of course, put pressure on public services any more than on private services. Thus what is required are arguments and calculations applicable to both sectors, as set out above. Moreover, the phrase "put pressu re on" is too vague.

In this connection, there is a flawed argument put forward by Sriskandarajah (p.6) to the effect that public services employ a disproportionately large number of immigrants. This, according to Sriskandarajah, deals with the claim that immigrants put pressure on public services. This argument is flawed, for the following reason.

To the extent that immigrants are over-represented in the public sector, they are under-represented in the private sector. Thus, using the above logic, it could be argued that immigrants nowhere near pay their way in the private sector. But the truth is that the exact

sectors or industries in which immigrants concentrate is irrelevant to the overall picture.

Second, the fact that a particular number of immigrants work in a particular industry is irrelevant to the basic point addressed here, namely the additional investments that immigrants make necessary. To illustrate, immigrants working in the public sector do not have a special deduction made from their salary to pay for these investments. Put another way, immigrants in the public sector get exactly the same pay in any job as natives (assuming identical qualifications, etc). The difference is that the latter and/or their parents their have built up the nation's assets over the years.

15% of immigrants assumed to arrive with adequate capital

The above calculations assumed that all immigrants are penniless on arrival. Obviously they are not. On the other hand as Scholefield points out, only a minute proportion of immigrants make use of the Government's scheme for allowing immigration on the basis of immigrants being "of independent means". Also, where immigrants do bring significant capital, the first investment they will make in most cases will be in housing. This still leaves other investments to be funded.

Another strand of evidence here is that only 20% of immigrants become house owners within five years of arriving, according to the Council of Mortgage Lenders. Under the "adjustments" section below it i s assumed that 15% of immigrants make no demands on native savers.

A final point on wealthy and not so wealthy immigrants is that the effect of a change in Government policy towards the super-rich and internationally mobile could be dramatic. For example a rapid exodus or influx of the very wealthy, assuming they take a significant portion of their assets with them, might swamp the effects discussed here. Thus the discussion here is obviously on the "other things being equal" basis.

Do children inherit their share of public assets from their parents?

Arguably the children of natives at the start of their working lives are in much the same position as immigrants, that is they have made no contribution to the capital stock. Or perhaps, they should be seen as inheriting their portion of the capital stock from their parents or grandparents. So should a distinction be made between immigrants and these children, or between immigrants and natives?

The answer depends on what were the intentions of previous generations in sacrificing current consumption in order to build up

and maintain the country's capital stock. If it was their express intention to share the stock with millions of immigrants then it would be justifiable to make little distinction between immigrants and natives. However this seems unlikely because a large majority of personal assets are bequeathed to relatives. The intentions seem clear enough.

Immigrants' human capital is included in the fiscal surplus

Human capital (i.e. skills) is an important form of capital stock, and immigrants bring their fair share of this form of capital. That is, immigrants have approximately as good skills as natives. This raises the question as to whether this "gift" of capital to the UK should be subtract ed from the capital investment in roads and so on that immigrants make necessary.

The answer is that the full benefit of this human capital appears in the earnings of immigrants: it is already included in the figures that go to make up the fiscal differential or *net immigrant effect.*

Immigrants' numerous children require infrastructure.

It can be argued that the effects of immigrants should be considered without reference to the effects of their children. This point is considered in detail below under the heading "Debit the cost of educating imm igrant children to immigration?". The conclusion is that the costs ass ociated with immigrants' children **should** be factored in.

If immigrants arrived as complete or typical family units, that is including a representative sample of new born babies, children, grand-parents and so on, there would be no reason to say much about the infrastructure required by UK-born children of immigrants. This is because while such children certainly require infrastructure and other investments, such children would be born at about the same rate as grand-parents died. That is, the investment burden on the UK would not increase after immigrants' arrival.

However, immigrants on arrival are heavily clustered around the age of 20-25. On the basis of this evidence alone, one would expect them to have most of their children quite soon after arrival. Indeed it seems that this factor effectively doubles the investment burden that immigrants impose. That is for every immigrant arriving, one "immigrant's child" appears soon afterwards; and the child requires infrastructure and other investments just like the original immigrant. For evidence on this "doubling" effect, see endnote 7.

Adjustments to the investment figure

Adjustment 1. The above £5.7bn investment needs doubling to take account of immigrants' children (a 100% increase).

Adjustment 2. It was assumed above that the entire cost of immigrant investments are funded by natives. Since about 10% of the population are immigrants, this is clearly not so: immigrants themselves pay for about 10%.

Adjustment 3. Quantifying the number of years by which immigrant investments are delayed is difficult. At the same time there is clearly some additional cost imposed here. A further complicating factor is that it is near impossible to apportion blame for the delayed investment. Probably the investment delay attributable to illegal immigration can be blamed on the illegal immigrants. Anyway a token 5% addition will be put in. In view of the average 33 year life of assets in the UK, this 5% amounts to assuming just over a year's delay.

Adjustment 4. Not all immigrants are penniless. Guessing what proportion come with how much capital is difficult. Just under 30% of immigrants come from the English speaking developed world and Western Europe: countries which, taking the entire population of such countries, enjoy a similar level of wealth per head as the UK. On the other hand the average age of immigrants is young: between 20 and 25. People at this age normally have not accumulated or inherited large dollops of capital. So let's halve the 30% and call it 15%. But clearly more research would refine this figure.

Conclusion: total additions to cost are, respectively, 100 – 10 + 5 - 15 = 80%. £30,000 x 1.8= £54,000. The latter multiplied by the annual net immigration figure (190,000) comes to £10.3bn.

Immigrant debt is paid back after about a generation

Summary. Immigrants pay the debt back after about a generation, by which time interest on the debt will have amounted to a sum that resembles the debt itself. The latter is not paid back. Thus in effect immigrant debt is a cost to the host community.

Large capital sums must be treated with care. For example if interest is not paid on debt, it grows exponentially. At the other extreme, if debt is paid off quickly, little interest accrues before repayment.

By way of illustration, consider first an average or typical immigrant. There is not much difference between the skills of immigrants and natives (though to be more accurate those at the extreme ends of the skill range are over represented in the

immigrant community: the very highly skilled and the totally unskilled illiterates).

An immigrant of average skills and no capital will pay back their initial debt to a large extent when they have built up the bulk of their pension pots. To be more accurate, a given bunch of immigrants will probably not fully pay back the debt until sometime in the second generation, by which the group of families concerned will have their share of wealthy individuals who in addition to having private pensions, have their share of personal holdings of government debt, unit trusts, shares, and so on. For those not clear on this point, there is further explanation in a footnote.[3]

To summarise, and still assuming immigrants are identical to natives, immigrant debt consists of a capital sum which is repaid after roughly a generation, plus interest, which is never paid. Given the time that elapses before the capital sum is repaid, the interest probably comes to a figure that resembles the debt itself. In short, the effect of immigration is a cost to natives, which is repaid, but which is replaced by another cost of similar magnitude, namely the interest. Thus so far as the average immigrant goes we might as well measure the initial capital investment, call that the "cost" and leave it at th at. This procedure is rough and ready but it is the procedure adopted here.

Having dealt with the average immigrant, the reality is that economic performance of different immigrants and different groups of immigrants varies enormously. And the initial debt will amplify this difference. To illustrate, unskilled and untalented immigrants effectively have a debt around their neck which they will never repay and which grows exponentially because of interest. In contrast, highly productive immigrants will repay their debt in a few years: before there has been time for much interest to accrue. Such individuals' initial debt is a negligible burden on the host community: it can scarcely be called a "cost".

[5.] When immigrants arrive in an economy which has settled down to its preferred level of borrowing, lending, interest rates, etc., the new assets will be funded by an interest rate rise, which will result in lenders lending more and by existing borrowers borrowing less. Assuming that the preferred level of borrowing, lending, etc that immigrants and their descendants ultimately aim for is similar to that of the host population, when the lenders amongst immigrants and descendants have accumulated their preferred level of wealth, lending plus borrowing plus interest rates will subside to their original level. In effect, lenders amongst immigrants and their descendants will pay back the lenders amongst the host population

who temporarily raised their lending in reaction to the raised interest rates. Also native borrowers will revert to their original level of borrowing, funded in part by immigrant lenders.

The extent to which the initial debt is a cost to the host community is also influenced by the overall *net immigrant effect* picture. To illustrate, this picture is crucially influenced by assumptions such as whether the cost of educating the children of immigrants can be debited to immigration (about £7.6bn a year). If it is correct to make assumptions here which are unfavourable to immigrants, this in turn increases the number of immigrants who effectively never repay the debt.

The same applies to groups of immigrants. For example immigrants from English speaking developed countries (except the Irish Republic) earn twice as much per person of working age as those from developing countries. This is a big difference, a difference which will be amplified by the initial debt. The Irish earn about 10% more than native Brits, but they are not in the USA, Canada, Australia league. Not only that, but it is the developing country immigrants who have large numbers of children, for whom infrastructure has to be built. From the strictly economic point of view, third world immigrants are of very questionable benefit to the UK.

The phrase "per person of working age" as used abov e refers to the total earnings by a particular group, e.g. the Irish, divided by the number of immigrants of working age in that group. This gives a better idea of the economic contribution than the average remuneration of those actually going out to work in each group, because the latter measure hides the fact that there are big differences in the proportions of each groups going out to work.

Finally, for those who do not like the idea of adding interest to the immigrant debt, even if one does not add interest, the fact remains that the payback period is so long for the average immigrant, that about half the natives who fund the relevant investments will be dead before the original debt is paid back. "Lending" money to someone who does not pay it back , but instead pays it back to one's children in fifty years time without any interest is not a brilliant bargain.

Subsidiary points

A few points will now be considered which are arguably out of place in a paper devoted to immigrant investments. But they are considered, first because at least £1bn a year is involved in each case, and second because the way the relevant sum should be

treated is disputed. If any sort of final cost/benefit figure is to be given for immigration, these questions must be answered.

The first is the question as to whether the cost of educating the children of immigrants can be debited to immigration.

Debit the cost of educating immigrant children to immigration?

Summary. The Home Office argues that UK born children of immigrants are not immigrants on the normal definition, thus the costs of educating such children should be ignored. However there is no hard and fast definition of the word immigrant. Hence it is more fruitful to study the effects of immigration, rather than the effects of immigrants; and immigrants' children are obviously a result of immigration. Thus the cost of such education should be debited to immigration. However this summary does not do justice to the complexity of the arguments here.

Migrationwatch and Rowthorn (2007,A) claim that educating the children of immigrants should be attributed to immigration, that is the cost of such education should be subtracted from the fiscal surplus. Sriskandarajah agrees, but with reservations. The Home Office disagrees (although a few years ago the Home Office did attribute these costs to immigration).

HO does not go into this point in detail. But the Home Office presents a more detailed argument in a submission to the House of Lords (see "House of Lords" in references). The latter will now be considered.

The Home Office cites a Migrationwatch claim that but for immigration, UK born children of immigrants would not be here, a claim from which Migrationwatch concludes that the cost of their education should be attributed to immigration, that is subtracted from immigrants' fiscal surplus. The Home Office counters by pointing out that the same could be said about the adult children of immigrants, and that the tax paid by these adults is not brought into the equation. And stopping the measurements at the point where immigrants' children start work is an anomaly or "bias", as the Home Office puts it. (The bias exists, at least on the face of it, because on leaving school, people cease to claim from the public purse and begin to contribute to it, thus stopping measurements at this point could be construed as favouring the anti-immigration case.)

The irrelevance of definitions

In support of their case, the Home Office claim that "no usual definition of 'migrant' would consid er such children as migrants,

and doing so would substantially bias the calculation against migrants." The flaw here is that the strict definition of 'migrant' is not relevant because there <u>is</u> no hard and fast definition of the word. Take the case of a pregnant would be immigrant who gives birth shortly before arriving in the UK. On the normal definition of the word, the baby is an immigrant. In contrast if the baby first appears in the world just after the mother has arrived in the UK, the baby is not an immigrant. To pretend that there is any difference between the two scenarios, as the Home Office would presumably want to, is clearly nonsense.

And for another example, it could be argued that an immigrant who has been in the UK thirty years, who speaks perfect English and who intends staying is no longer an immigrant.

In short, studying the effects of **<u>immigration</u>** is more fruitful than studying the effects of **<u>immigrants</u>**. Indeed the advocates of multiculturalism are happy enough to attribute the benefits of ethnic restaurants to immigration even though a substantial proportion of those running such restaurants are second or third generation immigrants. And immigrants' UK born children are certainly a result of immigration.

Moreover there is nothing wrong with studying the effects of second, third or even forth generation immigrants, as long as the study is not biased in any way. Thus the fact that immigrants' children are not immigrants on the normal

Including children and grandchildren makes little difference

As to the Home Office point that if the cost of immigrants' children is to be included, the tax paid by immigrants' children when they start work should also be include, this point is perfectly fair. But it misses another vital point: people normally live to see a few of their grandchildren (who consume taxpayers' money). And if we are to factor in everything up to the death of the original immigrant, the cost of the grandchildren should be included. Indeed, as will be evident from the diagram in endnote 6, if the total fiscal effect of the typical immigrant family is measured up to the point where the original immigrant dies, the result will be about the same as measuring up to the point where the immigrant's children start work. The reason is that between these two points there is a complete family fiscal cycle of net contributions and net withdrawals from the public purse.

A fiscal surplus in year X benefits people in year X

The next weakness in the Home Office case stems from the basic relevance of the fiscal surplus or *net immigrant effect.* The

Home Office does not actually spell this out, but as pointed out near the outset above, the relevance of a fiscal surplus or *net immigrant effect* is that it amounts to a gift by one group (natives or immigrants) to another (natives or immigrants). And the gift does not for the most part benefit the recipients ten years hence; the latter would only obtain if the gift came in the form of a relatively long term investment. A gift by natives to immigrants in 2008 benefits immigrants in 2008 for the most part. That is additional tax paid by natives in 2008 mean less tax paid by immigrants in 2008 other things being equal.

Put this another way, there is no getting round the brute physical fact that natives living at the same time as immigrant children are educated suffer a loss of real income to pay for the education. Erudite arguments about the definition of the word immigrant are irrelevant compared to the brute physical fact of reducing the amount of beer, petrol, cut flowers or healthcare that natives enjoy as a result of paying for the education of immigrants'children.

A further weakness in the Home Office case here is that while most of the cost of educating a child in a given year is born in that year (e.g. teachers' salaries), a significant minority of the cost (the construction of school buildings) is born years if not decades **before** the year in question. This further weakens attempts by the Home Office to attribute educational costs to some point in the future.

Of course while immigrants' children are being educated, immigrants themselves are normally at work and paying taxes, which reduces the burden on natives that comes from funding the education of immigrants' children. On the other hand, when people are a net drain on the public purse, as they are when children, the amount of drain per year is more then the amount of net contribution per year when working and paying taxes. Moreover, immigrants have more children than natives. There is thus an unquestionable reduction in natives' real incomes as a result of the presence of immigrants and their children in the host country.

Immigrant fiscal surplus equals a 2nd generation fiscal deficit

The final nail in the Home Office case is that if the Home Office really wants to stick to its guns and claim that on a strict definition of the word immigrant, immigrants produce a fiscal surplus, the answer is that the claim is misleading. This is because this policy involves **not** attributing the surplus to the subsequent stage of the immigrant family's life in the host country. As a result,

the "subsequent stage" starts with a large fiscal deficit. Thus if the Home Office wants to trumpet immigrants' fiscal surplus, then those with doubts about the benefits of immigration are equally entitled to trumpet the dire fiscal effect of second and third generation immigrants.

Measuring up to the death of immigrants and up to school leaving age of their children

Having hopefully demonstrated that debiting the cost of immigrants' children to immigration is fair, there remains an apparent anomaly which is that this involves stopping measurements in respect of children when they leave school, while stopping measurements for immigrants when they die, roughly thirty years later. Does this matter? The answer is "not much": because after an immigrant's children leave school, the immigrant has about twenty years of work ahead of them and about ten years of retirement. During this period the immigrant is tax neutral, roughly speaking.

Mixed parentage

A final technical point on education involves children of mixed parentage. The cost of educating children where both parents are immigrants is included in the £4.9bn IPPR figure which the calculations here start. But the cost of educating the children where one parent is immigrant and one is native is not. As Migrationwatch points out, it is fair enough to count these children as being so to speak "half immigrant " for educational cost purposes. This adds £2.6bn to the bill (Migrationwatch, 2006).

National Debt incurred to fund current spending

Summary. Immigrants pay taxes, part of which funds payment of interest on the National Debt. Arguably this is unfair in that in some cases part of the National Debt was incurred to fund current spending in years before some immigrants arrived: spending from which these immigrants do not benefit. In fact, inflation has seen to it that the National Debt total is more or less equal to the value of assets owned by Government. Thus in effect immigrants do not pay for the latter current spending.

A problem raised but not solved by Gott was how to treat the portion of interest on the national debt which does not relate to capital investment (i.e. the portion incurred to cover current spending). This question might seem arcane, but as Gott points out, one set of assumptions here could double the £2.5bn fiscal surplus. The answer to this is that this portion of the National Debt seems to

be of negligible proportions. To be more accurate, while the book value of Government assets using conventional accounting techniques might indicate that Government assets are around half the amount of the National Debt, the actual value of Government assets roughly equals the national debt. This situation has presumably arisen because of the increase in value (or replacement cost) of property owned by Government, central and local. (National Statics (1, table 1.1.1 gives the total of Government owned assets as around £590bn. As to the national debt this is given by National Statistics 3, as £574bn.)

It will thus be assumed here that this rise in value/replacement cost solves the problem of the portion of national debt not attributable to capital expenditure.

There are of course those who do not like the latter sort of inflation accounting. They might argue that assets should not be periodically re-valued to reflect inflation and increased replacement costs. On this non inflation accounting basis, immigrants might appear to be paying too much by way of a contribution to interest on the National Debt in that the "curre nt spending" part of the debt has nothing much to do with immigrants. However on this standard accounting basis (i.e. ignoring inflation) Government assets are more valuable (or costly to replace) than is indicated by their book value, thus immigrants are paying an inadequate amount of interest on the debt that corresponds to these assets.

In short, the amount that immigrants contribute to interest on the National Debt seems reasonable (apart, of course, from the "extra investment" point, which is the central point of this paper).

Is any defence spending attributable to immigrants?

Summary. Yes. Immigrants are defended just like natives.

Rowthorn (2007,A,p.11) claims that "It can be argue d that the armed forces are a public good whose benefits to the existing population are not affected by the entry of migrants. To allow for this we eliminate defence from the list of expenditures allocated to migrants. This reduces expenditure on migrants by £3.0 billion." Gott does not adopt this policy, and indeed the latter Rowthorn argument is flawed.

First, the argument implies that defence spending does not rise when the population increases. This idea is confounded by the simple fact that each county's defence spending is closely related to the size of its population and output per head.

Second, what happens if the country is invaded? Would immigrants not be protected from the enemy in the same way as other citizens? This defence argument does not stand inspection.

Crime committed by immigrants costs the UK £3bn a year

Coleman claims that the crime committed by immigrants is in excess of what would be expected if crime levels amongst immigrants were the same as amongst natives. He puts the cost of this crime at £3bn. The evidence Coleman cites in support of this claim seems reasonable, thus the £3bn figure will be included in the total.

Remittances reduce the real incomes of natives?

Summary. The arguments here are complicated. The conclusion is that remittances do reduce the real income of natives by about £1bn a year.

Scholefield, Migrationwatch and Coleman regard remittances as a cost to the country in some form or other. The three works by Rowthorn cited here pass no comment on the matter.

Remittances depress the value of sterling relative to other currencies, which raises the cost of imported products for UK consumers, and on the face of it reduces the latter's real incomes. There is a good argument against the latter point, which in fact is also an argument against all immigration controls. This is that all free market activities must be assumed to raise world output unless it can be proved that there is market failure, for example as would be the case where there are significant externalities not compensated for by parties to the transaction, or where monopolies exploit their positions. (Externalities are defined in a footnote.[3])

One answer to the latter point is that, apart from externalities, there is nothing in the laws of economics that precludes a loss in output and/or loss of income for someone as a result of a transaction who is not party to the transaction. Also while market forces should return the incomes of those who have lost back to their original level quite soon, in practice, these damaging effects can last a long time. For example the switch to gas powered electricity generation over the last two decades or so in the UK has damaged the coal mining communities which used to supply coal for electricity generation. The damaging effects, psychological and physical are still evident two decades later.

[3] Externalities are costs imposed on those not immediately party to a transaction: for example the noise suffered by those living under flightpaths near airports.

There are of course differences between the effect of remittances and the above gas power station effect. First, in the latter case, those damaged are easily identified, whereas in the case of remittances, those who lose and those who gain are intermingled. Moreover, an individual person can gain **and** lose from remittances. For example an employer who hires immigrants will gain by employing immigrants, but will lose in that immigrants' remittances raise the price of the employer's foreign holiday.

Nor is there anything in the laws of economics that says that the spoils from a commercial transaction, in that they are enjoyed by the two parties to the transaction, are shared equally by the two sides. There is nothing to stop one side getting 99% of the benefit and the other, 1%. Indeed, the latter would seem to be the case with immigration. That is, study after study has concluded that far and away the biggest beneficiaries of mass immigration are the migrants themselves. (e.g. Roodenburg or Rowthorn (2007), A & B).

While small amounts of migration which bring in genuinely needed skills where required obviously bring benefits, mass net immigration brings few benefits. In this circumstance, it is perfectly reasonable for the side that gets the 1% to refuse to enter into the transaction. It is also perfectly reasonable for this side to have a careful look at externalities, like the effects of over-crowding, and conclude that mass immigration is not worthwhile.

In the specific case of remittances, it would seem to be quite reasonable to argue that mass net immigration brings no benefits: it simply increases the population. While the remittances that these immigrants send home very clearly reduces real incomes for natives.

Having said that, there is a weakness in the above argument which should be mentioned: where immigrants work in an import substitute industry they arguably save importing the relevant product. Put another way if the UK has the choice between importing a product and paying an immigrant (who remits much of their income abroad) to make it in the UK, there is not much effect on the balance of payments. However the UK imports about a quarter of what it consumes, thus presumably about a quarter of products are import substitutes, thus, while it is not strictly correct to do so, this point will be ignored.

Thus remittances will be counted as a cost here. As to the total amount remitted from the UK annually, estimates seem to vary widely (see endnote 4). Evidence is cited in this endnote suggesting the remittances for two national groups (Indians and

Poles) are around £5,000 a year per person. If this figure is typical for the entire immigrant community, the grand total for remittances from the UK will be around £30bn a year: about ten times the official estimate.

Whatever the figure is, it is over simple to count the figure as the amount by which real incomes of natives are depressed. If one takes the pessimistic Wynne Godley view of British external trade performance, then £xbn of remittances might arguably depress the real incomes of natives by more than £xbn. On the other hand if it is assumed that the elasticity of supply and demand for British exports and imports are around unity, then the real loss of income is around a third of the gross remittance figure.

A token gross remittance figure of £3bn will be assumed here, which gives a token real loss of income of £1bn. As will be clear, there is work to be done in this area.

Conclusion: Immigrants cost the UK £12bn a year

The immigrant fiscal surplus with which we started was about £4.9bn. Immigrants necessitate investments which cost natives £10.3bn a year, giving a net cost of £5.4bn. Add to this the cost of immigrant crime (£3bn), remittances (£1bn) and half the cost of educating the children of mixed parentage (£2.6bn) and the final total is £12bn.

It would be easy to add another £1bn. The security forces spend about £1bn countering terrorism, though a portion of this must be attributed to Northern Ireland and a portion could be attributed to the Iraq war. There is the “Ethnic Minority Achievement Grant” (£169m), “English for S peakers of Other Languages” programme (£280m), translation services (£100m), and a string of other items listed by Coleman. Some of these items are contentious: certainly not all of them can be added to the bill.

The above £12bn is tentative because most of the figures or quantities used in arriving at the £12bn are informed guesses rather than accurate measurements. Moreover, there is evidence that some of the official figures on which the workings here are based are very inaccurate. That is the correct figure could easily be half or double the £12bn.

Finally, to repeat a point made at the outset, no objections are raised here to migration which deals with genuine skill shortages. The latter, however, explains only a very small proportion of migration to the UK. The bulk of migration is essentially a mass movement of people which does little for the UK other than expanding the population of an already over-crowded island. The £12bn represents the cost of this mass movement.

Notes

Endnote 1: The political nature of HO.

HO makes much the of immigrants' fiscal surplus. It is important here to distinguish between two ways of measuring the surplus. There is the Home Office preferred way which involves **not** subtracting the cost of educating immigrants' children from the surplus. Secondly there is the way Migrationwatch and Sriskandarajah measure it, which **does** involve the latter subtraction.

Immigrants are almost bound to produce a fiscal surplus (as measured the Home Office way) because the host country does not paid for the education of immigrants. The only exception is immigrants arriving as young children, and they make up less than five percent of immigrants.

So what does the fiscal surplus in this sense prove? Almost nothing. This fiscal surplus is about as revealing as pointing out that there are fiscal advantages to be had when people die shortly after retiring: government does not have to pay state pensions in respect of such people. The whole fiscal surplus idea wouldn't by any chance be a wheeze to make immigrants look good, would it?

Second, HO makes much of the ludicrous argument that immigrants bring "economic growth" in that immigrants swell the popu lation. Well the average school child has worked out that the more people there are in the country, the bigger the economy, which is all that the latter "e conomic growth" point amounts to. Why this "economic growth" is of any be nefit to natives, HO does not explain. Nor do the many left of centre journalists who dutifully repeat this nonsense.

With a view to bolstering its case, HO tells us that "Work by the National Institute of Economic and Social Research suggests that around 17 per cent of economic growth in 2004 and 2005 is attributable to immigration". (HO, p.3). Inspection of the relevant NIESR work (Riley) reveals essentially nothing but a repetition of the claim that the more people there are in the country, the bigger the economy.

The effect of immigrants on **output per head** is the important issue. HO and Riley do address this, albeit without admitting the irrelevance of the "economic growth" point.

To be fair, it is probably not stupidity that induced the Home Office to promote the above "economic growth" argument: it was probab ly political deviousness. They knew it was a hook, line and sinker that many people would swallow.

They knew the average left of centre journalist would repeat the message verbatim. As to why the NIESR repeated the message, the explanation is probably that there are academics in the NIESR who, like many academics, aim to further their careers by maximising the quantity of what they publish, with not too much regard for the quality.

In short, HO is a piece of pro-immigration propaganda. It is a different kettle of fish to the other Home Office work referred to here: Gott. For a more detailed criticism of HO, see Rowthorn (2007B).

Endnote 2: Scholefield.

Scholefield is to be congratulated on drawing attention to the immigrant investment point. But some of his calculations are questionable. He subtracts the UK's annual capital consumption (£123bn) from capital formation (£190bn) which gives a net capital creation figure of £67bn. From this he subtracts immigrants' annual remittances which gives a figure for net capital contribution per year of £988 per year per immigrant worker. He then observes that it will take an extremely long time for immigrants to build up their fair share of capital (£140,000 per worker).

The main flaw here is the £67bn: what would happen in an economy where there was no net capital formation, a far from unrealistic scenario? The £67bn becomes zero, which rather throws the workings awry. For example an economy where firms had no need for increased quantities of capital, and where everyone was happy with the size of house they had, might not need any net capital formation. And for another example, an economy with a declining population might well not need any net capital formation.

Also the end result of the calculation needs to be tied up with and subtracted from the Government's claim about immigrants making a net fiscal contribution of £2.5bn a year. This is done in the main text above.

Endnote 3. Immigrants raise interest rates.

Received wisdom is that immigrants reduce interest rates, which conflicts with the above points about immigrants raising interest rates (because of the need to fund infrastructure and other investments). There are several answers to this.

1. Stories in the left of centre press about immigrants reducing interest rates normally have more to do with a desire to talk up immigration than with the evidence. For example a Price Waterhouse paper on the subject (Hawksworth) said "Quantifying this effect is very difficult given the large range of other factors affecting inflation and interest rates" (p.31). But when this paper is reviewed in The Guardian (Balakrishnan) the sub-headline reads: "Influx of labour 'has kept interest rates down'". The Price Waterhouse paper was based largely on a Bank of England study (Blanchflower). The latter is equally uncertain about the interest rate effects of immigration (p.23-5).

Moreover, even if immigration does cause an interest rate reduction, the benefits for the population at large are not impressive. Of course interest rate reductions are normally good news: they bring economic expansion and reduced unemployment. However an interest rate reduction consequent to immigration is quite different. The arrival of a bunch of immigrants causes slack in the immigrant sector of the labour market (until members of this bunch have found work). The arrival also causes slack in the native sector in that natives are displaced by immigrants. Thus an interest rate reduction consequent to immigration is designed to create jobs for immigrants and those who have been made jobless by immigrants! And that's it. There is no jobs bonanza for anyone else.

In short, an interest rate reduction consequent to immigration is very different to normal interest rate reductions. This point is invariably omitted in the above type of press report.

2. Reducing interest rates is an odd way of creating jobs for immigrants in that, given a rise in the population (from immigration or any other cause), the monetary base will presumably need to expand pro rata. If so, the logical response to immigration is a dose of unfunded budget deficit, rather than an interest rate reduction. Banks will then expand the amount of "bank created credit" that is built on the monetary base, and as a result, demand will rise. (Anyone who wants to object to this on the grounds that expanding the monetary base by Government buying back National Debt will not have the same effect as an unfunded budget deficit, please see footnote.[4])

3. Immigrants have been arriving in a steady stream in the US for two hundred years. Mysteriously, interest rates have not steadily declined for two hundred years. Moreover, the US monetary base is not the same in real terms as a hundred years ago (no big surprise there!). It has increased by about the same percentage as the growth in GNP (which in turn is partially determined by the size of population). Thus in practice, the additional demand required to keep an expanding workforce employed would seem to come from expanding the monetary base.

4. The reason that various studies manage to "show" that immigrants reduce interest rates is that this result stems automatically from the initial assumptions with which such studies start. To illustrate, step 1. is to assume that interest rate reduction is the only tool Government has for raising demand. Step 2. is to observe that immigrants mean the economy has some slack. Step 3. is to say that this slack means an increase in demand is required. Step 4. lo and behold, an interest rate reduction comes riding to the rescue. This proves nothing.

5. Having said that the rise in demand necessitated by immigration comes from monetary base expansions, the population must nevertheless face a finite interest rate rise as a result of immigrant investments because someone somewhere has to be induced to forego consumption in order to fund the investments.

Alternatively, if interest rates are not officially raised, various would be borrowers will find credit is just not available because those making immigrant investments have offered marginally better terms for the funds concerned, and have collared these funds. This in effect is an interest rate rise.

Endnote 4. Evidence as to the scale of remittances

Migrationwatch in one of its publications gives £3.8bn as the remittance figure, quoting the National Statistics balance of payments

[4] Good point. Buying back the National Debt (or failing to roll it over) puts money into the hands of savers. Whereas an unfunded budget deficit puts money into the hands of a cross section of the population, including spendthrifts (to put it crudely). It is possible the former does not raise demand. This was why it was suggested in the main text that the monetary base expansion is done the budge deficit route.

"Pink Book" for 2004 (table 5.1). However, what the Pink Book actually seems to refer to in connection with the £3.8bn is a figure for payments that **includes** remittances, which leaves open the question as to exactly what the figure for remittances is. Other estimates for the correct figure seem to vary widely, and as follows.

1. One Indian banker claims that £3bn is remitted in India alone every year [Retrieved from]..

2. A Department for International Development study gives the figure as just £1.1bn. [Retrieved from].

3. And the European Commission's statistics body, "Eurostat", gives 5.9bn euros in 2006, which more or less ties up with the above £3.8bn. [Retrieved from].

4. A report in the Daily Mail quotes the Polish Central Bank as saying that Poles in the UK remit £1.8bn a year, at the same time as pointing out that this is probably an underestimate because of the sums carried back to Poland in cash. (Mail, 5.1.07, p.46.) Herron p.4 gives the range as being anywhere between £170 and £1,999 per immigrant. (about £1 – 12bn).

The above figures for remittances in the case of Poles and Indians work out at about £5,000 a year per person (Indian and Pole). This is an almost unbelievable figure. But if it is correct, and similar figures apply to all other national groups, the total remittance figure would be around £30bn a year.

The £5,000 figure is not totally unbelievable given the scale of Mexican remittances from the US. The Economist (6-12th Oct. 2008, p102) gives $90bn as the figure. There seem to be roughly 9 million Mexicans immigrants in the US, which means a remittance figure of $10,000 per head per year.

The above large variations in remittance estimates make picking any figure difficult. A token £3bn a year will be assumed, which gives a loss of real income for natives of around £1bn a year.

Endnote 5. Summary of calculations.

Total investments in UK	£2,835bn
Less private housing	£1,042bn
Equals	£1,793bn
£1,793bn divided by 60 million UK population:	£30,000
Annual investment needed is £30,000 x annual net immigration (190,000) which equals	£5.7bn
Multiply by 1.8 mainly on account of number of children that immigrants have (see under "Adjustments to investment figure" for details). 5.7 x 1.8:	£10.3bn
Add remittances (£1bn) and cost of crime (£3bn)	£14.3bn
Less IPPR's immigrant fiscal surplus of £818 per immigrant, times say 6 million immigrants = £4.9bn	£9.4bn.
Add half the cost of childrens' education where one parent is immigrant and one native: £2.6bn	£12bn

Endnote 6.A typical immigrant family's fiscal effect.

The diagram below illustrates the fiscal effect of a fairly typical immigrant family. The following assumptions are made.

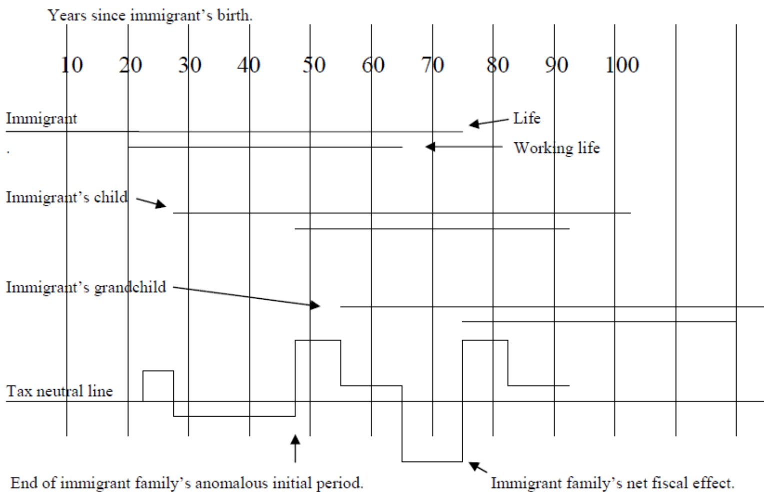
1. The typical immigrant arrives at the age of 221/2. (The actual average age of non-British immigrants seems to be around 24 to judge from Dobson p.49)

2. Each immigrant is assumed to have a replacement number of children, i.e. one.

3. The immigrant's child is born when the immigrant is 271/2.

4. People start work at 20, retire at 65 and die at 75.

5. The latter assumption means that everyone spends 45 years contributing to the public purse and 30 years withdrawing from it. This means that a person's withdrawals during a "withdrawal" year will be 1.5 times contributions during a contribution year. The vertical distance of the "ne t fiscal effect" line from the tax neutral line is to scale, i.e. it reflects the amount of the fiscal contribution or withdrawal from the public purse made by the family in each year.



Endnote 7. Earnings of different national groups

The source for the figures on earnings of different national groups is [Retrieved from]. which itself is derived from an IPPR work, *Britain's Immigrants, An Economic Profile*, (2007), [Retrieved from].

The figures are derived from tables 4.1, 4.2, 4.3, 5.1, 5.2 and 5.6. in the IPPR work.

Endnote 8. Immigrants' children double the investment burden

Gott, p.8, Fig 1 shows the age distribution of immigrants, compared to natives. Natives have an average of 1.7 children per couple, and as would be expected from the latter figure, the number of people in each 5 year cohort for natives (e.g. 10-14 year olds) is much the same for "child cohorts" as for "middle age" cohorts. In fact the child cohorts are slightly smaller because natives have 1.7 children on average rather than a replacement 2. In contrast, immigrants are seriously short of children in this Fig 1. For example the numbers in the two 5 year cohorts between 5

and 15 years of age is about a third (33%) the number in the middle aged cohorts. From this alone it might seem that immigrants have a third of their children before arrival in the UK. In fact immigrants have an average of 2.7 children. Allowing for this, it turns out that immigrants have just under 30% of their children before arriving in the UK (let's call it 30%).

Thus the typical immigrant couple with their "0.3" children will expand to a family of 4.5 quite soon after arrival. 4.5 is about double 2.3. This effectively doubles the investment burden.

Numerous refinements could be made to this "double" figure. For example, families typically have three generations alive at any one time, from which it might be concluded that the figure should be trebled, not doubled. On the other hand, as pointed out above, parents effectively pass their share of public assets on to their children; and at a guess the "passing o n" phenomenon will have started by the time the immigrant family has three generations.

There is also the point that it is not just immigrants, on the strict definition of the word, who have a relatively large number of children: it is also second and third generation immigrants. This means a further investment burden for later years. However, this point will be ignored, and we will stick with the above "double".

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7. Workfare: A marginal employment subsidy for public and private sectors

Workfare has had a chequered history because it has not been well thought out. It increases employment not just because it calls the bluff of the workshy; this element need not be all that harsh. It works because it acts as a marginal employment subsidy of a type not tried before (except unwittingly as part of workfare). The subsidy is as follows.

As full employment is approached (i.e.given rising demand), dole queue labour gets progressively less suited to available vacancies, which induces employers to out bid each other in an attempt to attract or retain better quality or more suitable labour, and this is inflationary. This phenomenon is behind NAIRU, the level of unemployment below which it is allegedly impossible to go. But the above unsuitability of the unemployed is temporary for each person: a job usually appears sooner or later for which they are suited. Thus the antidote is to compensate employers for this unsuitability, i.e. subsidise the unemployed into temporary jobs and this is more or less what workfare has always consisted of. This ought to reduce NAIRU.

The above NAIRU reducing characteristic of workfare is key to proving it should operate as much in the private as public sector. In fact it works better in the former because the private sector is better at employing relatively unskilled labour.

It is often claimed that workfare should take the form of specially set up job creation schemes. The arguments for this do not stand inspection (and nor do a large majority of other

arguments for these schemes). Thus workfare jobs should be with *existing* employers.

To effect workfare in this form, the unemployed are made available to all employers at little or no charge to the latter, while the number of jobs so created is strictly limited so as to prevent employers replacing existing employees with workfare employees.

The above all amounts to saying that there is a much stronger case for heavily subsidised *temporary* employment agencies than for subsidised *normal* employment agencies (Job Centres in the U.K.). Or to put it yet another way, in a totally free market (i.e. in the absence of unemployment benefit) the unemployed have the choice of doing nothing, or doing a job other than their usual one for a while. To date, governments have subsidised only the former. This booklet claims governments should subsidise the latter activity (perhaps at the expense of the former).

Definitions

The word workfare is used here to refer to giving the unemployed the choice of taking a government created job, a normal job, training, or, if they refuse these, having their unemployment benefit reduced.

The phrase 'unemployment benefit' is used to refer to *all* forms of social security received by the unemployed.

The above government created job is referred to with the phrase 'workfare job' or 'workfare employment'.

The phrase 'natural level of unemployment' is used in preference to non-accelerating inflation rate of unemployment. This is not to imply that the former is a better idea than the latter. In other words the phrase 'natural level' refers to whichever of the two, or variations on them, is the best idea. (For those not acquainted with economics, the natural level of unemployment is the level at which inflation becomes unacceptable.)

Introduction

The history of workfare is an unhappy one in that there is a lack of agreement as to what form it should take or whether it should operate at all. This disagreement partially explains the wide variety of different workfare schemes, particularly in the U.S., which are abandoned or greatly modified about as quickly as they are set up. The variety in the U.S. is also explained by the freedom individual states have had to design their own schemes. For the history see for example Rein (1982), Bernstein (1982), Helms (1983) or Burton (1987).

The object of this paper is to reduce the disagreement a little, firstly by pointing to a merit of workfare which does not seem to have been appreciated hitherto, namely that it acts as a marginal employment subsidy of a type not tried before (except unwittingly as part of workfare schemes). This characteristic of workfare is key to showing that in contrast to most workfare schemes to date, there should be no bias towards creating workfare jobs in the public rather than the private sector. It is also argued that the jobs should be with ***existing*** employers, not in the form of projects or or places of work specially set up to employ those who would otherwise be unemployed. The latter type of system will be called a "Job Creation Scheme" (J.C.S.). One reason for choosing this name (probably not a brilliant reason) is that there was a make work scheme in the UK around 1970 which fitted the above description and which was actually called "The Job Creation Scheme". The work houses of the 18th and 19th centuries were also examples of a J.C.S.

The main problem with J.C.S.s that the match of inputs (skilled labour, unskilled labour, capital equipment, etc.) is almost invariably superior with existing employers as compared to J.C.S.s. This is a simple point, but it is often overlooked even in works by leading labour market economists, a considerable blunder on their part. For the sake of brevity, the discussion below glosses over many of the differences between the social security system in different countries.

The Marginal Employment Subsidy

As full employment is approached (as Keynes, 1936; p42 amongst others pointed out), dole queue labour becomes progressively less suited to the available vacancies. In other words the marginal net revenue product of labour starts to drop below the going wage.

In a perfect market this would not happen, that is, there would be no such thing as the 'going' or standard wage. In the real world however there are several forces tending to bring about a standard or minimum wage in most professions:

1. Minimum wage laws imposed by governments.
2. Union imposed wage rates.
3. Wage rates imposed by custom or administrative convenience.
4. The belief by a significant proportion of employers that paying less than some minimum is immoral (see Roberts, 1986; p.72).

5. The belief by a significant proportion of employers that paying wages above the market price results in a well motivated and loyal workforce.

6. Reluctance by employers to offer wages equal to or even near unemployment benefit because of the relatively few takers that result.

At any rate, as employment rises, the above mentioned decline in the marginal net revenue product of labour induces employers to start bidding up the price of labour that is already employed (for example by poaching each other's employees) rather than take further labour from the ranks of the unemployed. (See Haveman, 1970) for some research on the extent of poaching at different employment levels).

But it is a nonsense to leave a portion of the workforce unemployed merely because revenue does not cover the wage. To the extent that the problem is inadequate marginal revenue, the solution must be some sort of marginal employment subsidy. Furthermore the above mentioned inadequate revenue product is a *temporary* phenomenon for each individual member of the dole queue; that is they find a job sooner or later where they are sufficiently productive to justify a wage. Thus the actual subsidy required i~ one that makes an unemployed person available to employers at a rate *below* the above mentioned standard or going rate, and does, so *temporarily,* that is pending the appearance of a vacancy that suits the person better, or is for other reasons more productive: a vacancy where the employer is prepared to finance the whole of the wage.

Having set out the basic nature of the subsidy, there is a qualification that needs making which is thus. While the fundamental cause of some people's unemployment is temporary, that is, a temporary mismatch between supply and demand for their type of labour in their local labour market, it is equally true that the fundamental cause of a significant proportion of unemployment is *not* temporary. In short, a subsidy based on the above argument would reduce frictional unemployment but not the more long term mismatches, that is structural unemployment (though, as is shown below, it is not a bad second-best cure for some forms of structural unemployment).

Two false assumptions in Workfare

We now turn to workfare and demonstrate that a temporary subsidised job based on the above argument comes to the same thing as the ideal workfare job. Before doing this however, two popular false assumptions behind workfare must be disposed of.

The first is that the jobs concerned should be in the public sector and indeed nearly all workfare jobs to date have been in the public sector. The second, even narrower, assumption is that the work should be in the form of a J.C.S., rather than with existing public sector employers. For examples of these assumptions see Helms (1983) p.1, Minford (1985), p48, Burton (1987), and a very much earlier example comes from France in 1625 where Richelieu claimed that *"the able bodied poor could be employed on public works"* (Garraty, 1979; p.46).

The assumption that workfare should take the form of a J.C.S. will be examined first. Readers already convinced that there is no place for J.C.S.s may skip the following section, that is, go straight to the heading 'Marginal Employment Subsidy Workfare' on page 10.

Job Creation Schemes

'J.C.S.' is used here to refer to any organisation or employer set up partially or mainly to provide employment or work experience. In contrast, normal employers, public and private, do not aim to provide work experience (except as part of their own training needs). Also normal employers aim to *minimise* numbers employed in as far as this is consistent with other objectives like maximising profit or volume produced. For readers with any doubts as to the sort of scheme this definition is supposed to cover, a selection is listed in a footnote. [1]

1. Work Progress Administration (U.S. 1930s), Community Programme (U.K. 1980s), Job Creation Programme (U.K., 1970s), Employment Action (U.K., 1990s). At a pinch the workhouses of Europe and America in the 17th, 18th and 19th century might be classified as workfare in the form of job creation schemes.

2. Before examining J.C.S.'s, it is worth noting aspects of them which are certainly prima facie evidence that there is no good argument behind them. First, they are set up and abandoned with amazing rapidity, for example there have been about six J.C.S.s in the U.K. in the last twenty-five years. Secondly, as far as international comparisons go, there is little agreement on what the main objectives of these schemes is (for example see Jackson, 1979) for some comparisons). Third, even the arguments in the literature of just one country can best be described as bright and varied. There is certainly no one fundamental theory to examine.

Flaws in Job Creation Schemes

Dealing with *demand deficient* unemployment is certainly not the role for J.C.S.s; this is best done by raising demand. Thus the

role for J.C.S.s, if there is one, is to reduce the natural level of unemployment, a point about which there is general agreement in the literature.

The first difficulty in setting up a J.C.S. when unemployment is at its natural level is that (as pointed out above) the quality of labour available is poor, or where suitable labour is available it is scarce. Thus any J.C.S. set up in these circumstances will have an odd mix of different types of labour, skilled and unskilled in particular. This poor match of inputs leads to inefficiency compared to the situation that would obtain if the labour were subsidised into work with existing employers, where labour ratios are better.

The next point is that those employed on a J.C.S. must engage in a serious job search for normal jobs and be as willing to move to the latter as when unemployed. If this does not obtain, labour supply to the normal jobs market is reduced which is inflationary. (Any readers who do not agree, please see Appendix III). But this availability to normal jobs means that those concerned will quite their J.C.S. jobs on average within a few months of starting, in other words labour turnover will be high by the standards of a normal employer and hence make the inefficiency even worse.

Again, in contrast to the above, if the same people were subsidised into work with existing employers, the labour turnover of the people concerned would be the same, but the ratio of permanent staff to 'rapidly turning over' staff would be superior, which would result in higher output from the latter.

It could be claimed in objection to the above that the failure of J.C.S. employees to job search would not significantly reduce labour supply to the extent that J.C.S.s are biased, as they often are, towards the employment of types of labour prone to higher than usual unemployment or towards high unemployment areas. (See Baily, 1978 and Addison, 1979) for a consideration of J.C.S. in this role.)

The first answer to the above point is that it confuses issues that to a large extent are separate; in other words the fact that J.C.S.s may be suitable for dealing with the above 'specific type of labour' unemployment and regional unemployment does not prove they are the best means of putting workfare into effect. Put it another way, workfare as defined here is not primarily concerned with the above types of unemployment.

However it might be argued that the unemployed *are* a specific type of labour, in that they tend to consist of the less skilled and enthusiastic members of the workforce. Furthermore, in the U.S., workfare has to a large extent concentrated on a specific type of

labour: potentially employable labour that has become dependent on the welfare system. So the question as to whether J.C.S.s are better than existing employers for catering for specific types of labour is now considered. (High unemployment areas are considered several paragraphs hence.)

The problem with J.C.S.s aimed at specific types of labour is that this exacerbates the above mentioned problem of the poor match of inputs. In other words the mere fact of concentrating one type of labour on a particular project leads to even worse inefficiency as compared to subsidising the labour concerned into employment with existing employers.

The above point about the better match of inputs that obtains with employment subsidies may seem a simple one, but it is an example of the sort of simple point that needs making. For example Messrs Baily and Tobin, two of America's most reputable economists, failed to spot the point in their paper on the subject published by the Brookings Institution (Baily, 1978). As a result they come to no firm conclusion on the relative merits of J.C.S.s and employment subsidies. (Even economists who have *attacked* J.C.S.s do not seem to have done so in a very competent manner, for example, J.T. Addison (1979) (see Appendix II)).

It could be argued against the above paragraph but one that while the match of inputs may be better with employment subsidies, in practice there are two possible problems: first, the excess supply of some types of labour (of which youths may be an example) may be large, and secondly the elasticity of demand for the labour may be low. In consequence, even making the labour available to employers for free might not result in unemployment amongst the type of labour concerned being reduced to its natural level.

A good answer to the above comes from the New Testament: if you have good wine and stale wine, you start with the former and only use of much of the latter as you have to. In other words the ***first*** step in dealing with the above unemployment is to subsidise the labour concerned into work with existing employers, and if necessary make the subsidy so heavy that the labour is in effect being allocated to employers for free, or thereabouts. In practice, the policy for youth unemployment, at least in the U.K. in the 1970s was the wrong way round; relatively large amounts were spent subsidising people into work on *J.C.S.s;* for example the wage on the Job Creation Programme was the going or union rate for the job. In contrast the amounts spent subsidising youths into work with existing employers were relatively small, for example

£10 a week on the Young Workers scheme. The relative emphasis has improved somewhat since the 1970s, but not by nearly enough.

If, after taking the above first step, the 'excess supply' type of unemployment still seems to be above its natural level, it is still highly questionable as to whether a *J.C.S.* should be implemented, and for the following reasons. If a particular type of labour is offered to employers for free, then the marginal net product of such labour will be zero. Given that *J.C.S.s* are less efficient than existing employers it follows that the net product of the labour on a *J.C.S.* will be *negative*. To be more precise, it would be physically possible to set up a positive net product *J.C.S.* in these circumstances by moving sufficient skilled labour, capital equipment, and so on from the existing economy; but this re-allocation of the above inputs would reduce GNP by more than the *J.C.S.* could possibly increase it. In short the effective net product of the labour concerned would still be negative. If the advocates of *J.C.S.s* seriously want *J.C.S.s* in these circumstances, they must tell us why they are opting for what appears to be the worst of two alternatives. Furthermore, the word 'job', as in job creation scheme, is inappropriate; the word 'job' normally means to make a net contribution to national income. When output is negative, one is in the area of pure training or education, and not the 'job' area.

As to whether there is justification for negative output work with *existing* employers, there possibly is, in that there is a training or 'learning by doing' element. The Victorians used to operate something along these lines in that apprentices and articled clerks sometimes had to pay for the privilege of being taken on. Paying employers to take on, and train people is one element of 'Employment Training' a scheme introduced in the U.K. a couple of years ago, though, as is shown elsewhere, other characteristics of Employment Training are not so desirable.

Returning for a moment to the point made several paragraphs above namely that a type of labour in surplus, like youths, could be allocated to employers for free, this is a slight over-simplification in that it would be administratively difficult. For example, if government offered to underwrite all youth's wages, employers would double such wages overnight, which is not on. However, there would be no great administrative difficulty in a flat subsidy equal to the average youth wage or some fairly high proportion thereof (perhaps paid for by a tax on prime aged labour).

Furthermore, this latter form of subsidy does not in any way invalidate the above points about the marginal net product of a particular type of labour. To illustrate, the fact that some employers are paying relatively productive youths more than the subsidy has

nothing to do with what happens at the margin, that is with the *least* productive youths.

One of the arguments used by J.C.S. enthusiasts against the above sort of subsidy for youths is that it induces employers to use youths 'as cheap labour' or that the type of labour concerned is given 'menial' work to do. The answers to this are as follows.

First, as is shown under criticism no 15 below, the word 'menial' is devoid of any significant meaning so far as practical labour market policy goes.

Secondly, as has been shown above, work with existing employers is more productive than work on J.C.S.s. Advocates of the 'menial' argument must tell us why they have a right to sacrifice other peoples' living standards so as to satisfy their own idiosyncratic preferences.

Thirdly, in view of some of the near fatuous activities that J.C.S.s involve, it is a little strange to claim that they involve vastly less menial work than work with existing employers.

Returning from this diversion on youth employment to the main argument, the next step is to deal with the suggestion several paragraphs above that J.C.S.s can be used to deal with high unemployment areas. The problem with a J.C.S. in this role is that it is very hard to see the sense in such regions of having one group of heavily subsidised employers (J.C.S.s) working alongside another group (normal employers) which are not subsidised or not so heavily subsidised. It would make a great deal more sense to subsidise *all* or nearly all employers in the region by about the same amount, and indeed this is more or less what normal regional measures consist of: subsidies for every or nearly every employer in the region concerned, whether in the form of capital equipment subsidies or labour subsidies.

Having done that, in other words offered about the same subsidy to every employer in the region concerned, J.C.S.s included, the latter are out of business because there is no way they can compete with normal employers.

It might seem that the case for J.C.S.s is now starting to look weak.

Unfortunately as pointed out above, the arguments dreamed up by advocates of these schemes are many and varied. In particular, there is one argument they are fond of, and could throw at the above argument on 'specific type of labour' unemployment and regional unemployment. It is that the cost per job to the taxpayer of a J.C.S. is small (which it is) compared to the cost per job created by the above sort of blanket subsidies for all labour in high unemployment areas or all members of a particular type of labour.

The answer to this is that cost per job is irrelevant and for the following reasons.

J.C.S.s, as has been shown above, involve a misallocation of *real* resources as compared to subsidising the labour concerned into employment with existing employers. There have doubtless been cases of *J.C.S.s* with impressively low 'costs per job' being so inefficient that they contribute nothing to national income or even reduce it. Turning now to blanket subsidies, these certainly involve subsidising a large amount of labour that would be employed anyway (and hence involve a relatively high 'cost per job'), but assuming normal competitive forces are working, this money ends up back in the pockets of the taxpayer/consumer's from whence it originated, in the form of lower prices. It thus cannot be construed as a *real* cost, and certainly does not diminish national income. For those not convinced by this argument, an expanded version is set out in Appendix I.

Another possible argument for *J.C.S.s* is that the sort of tasks they undertake can be of a kind not already undertaken by the existing public sector, and hence that there is a case for an organisation or type of employer different from the existing public sector. The flaw in this argument has to do with the value of the output concerned as is as follows.

The decisions as to what the public sector shall produce, what the relative amounts of each public sector product shall be, and what the size of the public versus private sector shall be, are decisions taken by the electorate, not the market. Economists and those concerned with setting up *J.C.S.s* can only assume that the marginal product of different public sector departments and of the private sector are all the same. Now if a *J.C.S.* produces something substantially different from those public sector products that voters normally vote for, namely medical services, education, police, armed services and so on, then it must be assumed that the output will be of relatively little utility or worth compared to the output that would come from expanding the existing public and private sector. Alternatively, if a *J.C.S.* and the existing public sector produce the same product, this is duplication of effort.

To summarise, four points have been made about subsidising people into work on *J.C.S.s* as compared to subsidising them into work with existing employers.

1. The ratios of different types of labour will be far from optimum.

2. There will be high labour turnover.

3. To the extent that high labour turnover is avoided by concentrating on types of labour that are in surplus, this leads to

even worse labour ratios. 4. Regarding the public sector, if these schemes produce something different from the existing public sector, the output will be of relatively little worth; alternatively if they produce the same as the existing public sector, this is duplication of effort.

As to empirical evidence to support the above four points, it might be claimed by advocates of J.C.S.s that the evidence from the 1930s (e.g. Kesselman, 1978) is that while such schemes were certainly not as efficient as normal employers, output per head was sometimes well over three quarters that of normal employees. The first answer to this is that even if output were ninety-nine per cent that of normal employers, £100 a week of output is better than £99. Secondly in the 1930s there was massive demand deficient unemployment. In that J.C.S.s then were dealing with this form of unemployment, the above problems of high labour turnover and badly matched inputs would not have applied. Hence the good productivity.

It should incidentally be pointed out that the argument so far has compared the allocation of particular types of labour to two types of employer, J.C.S.s and existing employers public and private. This is a slight over-simplification, in that there are shades of grey between the above two. The latter has been more common in the U.S. than elsewhere and has taken the form of concentrating specific types of labour in existing public sector institutions. All the arguments in the previous pages apply to this latter sort of policy just as much as to J.C.S.s: in other words the artificial concentration of any type of labour in any sector or part of the economy constitutes a misallocation of resources.

Training

Another argument cited for J.C.S.s is that they can combine employment and training. The first answer to this is that employment with existing employers can and does combine the two perfectly well. Moreover there are reasons for thinking J.C.S.s are particularly poor at combining the two. Jackson (1979, Ch. 10) and Ridley (1980), p.265 give some reasons here. Also the combination suffers from the 'timescale clash' pointed out in the penultimate paragraph of 'criticism No to' below.

The above arguments, which are largely theoretical, seem to have been born out in practice in the case of 'Employment Training', a scheme in the U.K. which combines training and J.C.S.s. In other words the training in this schemes appears to have involved poor value for money (see Wood, 1991 and Bassett, 1991).

Seasonal or Cyclical Factors

Another argument for J.C.S.s is that they are suitable for dealing with seasonal or cyclical unemployment, the former being of particular importance in Canada and Sweden (see Francomb, 1979 and Janerus, 1979 respectively). It is probably a measure of the weakness of the theory behind J.C.S.s that the above two authors confine themselves to *describing* the schemes in their respective countries, without giving any reasons for them being better than alternative measures for dealing with seasonal or cyclical employment.

If seasonally unemployed labour is to be made available for free to J.C.S.s it is hard to see why it should not be made similarly available to existing employers public and private. A resource is allocated most efficiently when allocated to the highest bidder, not by artificially preventing the majority of potential bidders from bidding, or potential users from using the resource.

It should be said in defence of Sweden's J.C.S.s that to a large extent they consist of bringing forward public sector projects that have already been planned, and in a few cases private employers take the labour concerned (e.g. see Ginsburg, 1983 p.129). To this extent Sweden's job creation is not far from what is advocated in this paper.

Maintaining Skills

The final argument for J.C.S.s to be considered here is that they enable those concerned to maintain their skills. This argument appears in the official literature produced to explain Employment Action, a J.C.S. just introduced in the U.K. at the time of writing. This is a poor argument in view of the narrow range of activities encompassed by J.C.S.s, Employment Action in particular. The actual range in the case of Employment Action is very typical of J.C.S.s and appears to consist of construction, horticulture, two or three others, and that's it.

This weakness in J.C.S.s it should be emphasised, is an *inevitable* one; it is not just the result of how one or two such schemes happen to have been organised. This is because unless J.C.S.s infiltrate almost every industry and sector of the economy, they cannot hope to offer a wide variety of skilled work experience. For example complaints were being made in Sweden fifteen years ago that the type of work experience (and training) on J.C.S.s was irrelevant to the aspirations of those involved (this despite Sweden's job creation being on a much larger scale relative to its population than the U.K.).

The conclusion at the end of this section is that none of the main arguments for J.C.S.s stand inspection. It is always dangerous to say there is no argument at all for something, but certainly the arguments for J.C.S.s are weak in the extreme.

Marginal Employment Subsidy Workfare

Having concluded that existing employers are preferable to J.C.S.s the question as to whether workfare labour should be allocated to just public employers or both public and private employers is now examined.

Before doing this however a few words about the difference between public and private sectors are required. By definition the distinction between the two is who owns them. Unfortunately this is not the distinction relevant to workfare (or many other topics in economics). For our purposes the important distinction is between the sector that *sells* its output and the sector that *gives away* its output, which of course does not coincide exactly with public and private sectors. This little problem will be solved by *using* the words public and private, but in reference to the 'give' and 'sell' sectors respectively. We now turn to the problem that private sector workfare requires an increase in demand and that this might be inflationary.

The answer to this problem is that raising demand does not matter to the extent that such demand is channelled towards otherwise unemployed labour, and *not* towards types of labour in short supply. Now if workfare labour is made available at little or no charge to employers then the latter have a clear incentive to direct work towards the newly available labour. The *exact* extent to which the latter would obtain is of course hard to quantify without some extensive research and econometrics. That itself, if not the ideas in this paper would keep someone employed for a year!

At any rate most readers will by now have realised that what is advocated here as being the best form of workfare amounts to all intents and purposes as the same thing as the marginal employment subsidy set out at the beginning; making the unemployed available to all employers at little or no charge to the latter pending the appearance for each person concerned of a normal vacancy.

This will for want of a better phrase be called Marginal Employment Subsidy Workfare (MES Workfare). The word 'workfare' will still be used below, but will refer to the word as defined at the outset; this is a broader definition that incorporates MES Workfare and most workfare schemes in the U.S.

Returning for a moment to the above mentioned difficulty in estimating the extent to which MES Workfare would improve the

inflation/unemployment trade off, it might seem safer to leave it confined to the public sector because of the possible inflationary impact of private sector workfare. This idea however contains flaws, the first of which is best revealed by reconsidering the marginal employment subsidy set out at the beginning.

Let us assume that the severity of the sanction involved and the wage for MES Workfare jobs is such that MES Workfare people have exactly the same incentive to seek normal jobs as when unemployed. Let us also assume that MES Workfare people are charged to employers at £x a week (perhaps because it is regarded as not socially acceptable for people to do work where the net product is less than £x a week). As the number of MES Workfare people rises the point at which employers poaching each other's employees becomes excessive compared to the extent to which they take MES Workfare people will be the point at which the marginal product of MES Workfare people has dropped to about £x a week, or some function of £x a week. Furthermore there is not a vast difference between the organisation of, or working practices in, the public and private sectors. Thus the fact that at some point private sector MES Workfare ceases to contain inflation is no compensation for the public sector: at this point the marginal product of public sector MES Workfare will also have dropped to about £x a week or some function of it. Hence the latter cannot be expanded any further, given the assumptions with which we started.

Of course these assumptions can be altered, but this still does nothing for the public sector. For example with a view to expanding the number of MES Workfare people they could be allocated to employers for free. All the above arguments still apply except that £x is replaced with £0. Furthermore so far as the private sector goes, no additional demand is required to create a zero net product job, and zero additional demand cannot possibly have an inflationary effect. It is doubtless justifiable to ask what the point of a zero net product job is. The answer it that it might perhaps be justifiable in terms of work experience and the 'employee to employer introduction' element involved.

Another assumption made above was that MES Workfare people have the same incentive to seek normal work as when unemployed. Altering this assumption, again, does nothing for the public sector. For example if relatively generous wages are paid for MES Workfare jobs, this reduces the above incentive, the effect of which would be inflationary. Furthermore the inflationary effect is just the same in both sectors. In other words one MES Workfare person in the public sector failing to seek normal employment has

exactly the same inflationary effect as one similar person in the private sector.

Another point against the public sector is that it cannot even be claimed, if U.S. experience is any guide, that the public sector is less prone to fraud than the private sector, given sloppy administration. There have been cases where over half the so-called workfare employees in state governments were in fact normal permanent employees. State governments were defrauding central government (see Johnson, 1979).

The final point against any bias towards the public sector is that the proportion of public sector employees who are skilled is higher than in the private sector. Since MES Workfare jobs would be concentrated at the unskilled end of the spectrum, the public sector is *less* suited to MES Workfare than the private sector.

The conclusion is that there is certainly no logic in any preference for the public sector; if anything there is a case for a bias in favour of the private sector.

To summarise so far, it is advocated here that there is a case for subsidised temporary jobs for the unemployed with all existing employers, with government in effect operating a subsidised temporary employment agency. Indeed the case for this is probably stronger than the case for government subsidised *normal* employment agencies (Job Centres in the U.K.). It is far from clear that the flow of information about jobs provided by newspaper adverts, private employment agencies, and so on is less than the optimum in the absence of Job Centres, a point which private agencies made in no uncertain terms when Job Centres first arrived. **In** contrast, MES Workfare, or subsidised temporary agencies, would deal with some very obvious and blatant labour market defects: the six points set out at the beginning.

Implementing MES Workfare

The basic problem in implementing MES Workfare is how to make labour available to employers at little or no charge without them replacing their existing employees wholesale with MES Workfare people with a view to reducing payroll costs. There are at least four ways of controlling this problem which are as follows.

1. Limit the number of MES Workfare people to a small proportion of each employer's workforce.

2. Limit the number allowed by the government employment agency in a particular town or area.

3. Charge employers a relatively large amount for the labour.

4. Limit the time for which a MES Workfare person stayed with a particular employer. One workfare scheme (in Utah) placed a

twelve week limit on the duration of workfare jobs (Germanis 1983; p. 144).

As to time limits, it is important to distinguish between limiting the time someone stays in the workfare *system* (regardless of how many different employers they work for) and on the other hand limiting the time someone stays with a particular employer. There is no reason to limit people's time in the *system* as long as they are making serious attempts to find normal jobs. **In** contrast, as intimated in point No 4 above, limiting the time someone stays with a given employer *is* desirable so as to make it difficult for the employer to use them as substitutes for normal permanent employees. Of course there must be *something* to dissuade people from staying in the system too long: the best measures are keeping the workfare wage relatively low and/or spending more on government employment agency job search efforts.

These issues seem to have been somewhat confused in Utah in that they limited the time people stayed with a particular employer so as to encourage them to find normal jobs. Doubtless the desired cause-effect relationship existed to some extent, but they were not using the right tools for the job.

The above twelve week limit adopted in Utah is probably of much the right order, assuming the time limit method of control was used for MES Workfare. This is because MES Workfare amounts to doing very much what would occur in a totally free market; unemployment benefit is not a free market phenomenon (except to the extent that people would voluntarily take out insurance against unemployment) and in the absence of unemployment benefit, people would to a greater extent than at present when made unemployed take jobs other than the ones they wanted pending the appearance of the latter. Now the average time for which people are unemployed is roughly twelve weeks, thus if MES Workfare is to mimic the free market, then twelve weeks looks about right.

Indeed the very fact that MES Workfare mimics the free market is evidence that it would reduce unemployment, since in a perfect market there is no unemployment.

There is not a vast amount to choose between the above four methods of controlling the number of MES Workfare people. The time limit is probably better than limiting the numbers with each employer. This is because the number of temporary and relatively unskilled people that employers can use varies widely, and there is no good reason it should not be allowed to vary widely. Indeed the introduction of MES Workfare might result in some firms setting

up entirely new operations, like simple assembly operations employing largely MES Workfare people.

Lest there be any doubt that the time limit would keep control of the system, it should be remembered that probably a good ninety per cent of the employees of most firms have skills specific to their firms and the latter would not be able to afford to lose them by registering them as MES Workfare. For example the lowliest office job, making the tea and coffee, involves skills specific to the office concerned. It can be a nuisance if the tea brewer quits: permanent staff have to sacrifice working time to teaching the replacement how to work canteen equipment without wrecking it, and so on. In short the role for MES Workfare employees is *assisting* existing permanent employees, not replacing them, although some replacement is bound to occur.

As to using the price employers pay for MES Workfare people as the control, a relatively high price has the advantage that it will raise the net product of those involved. The disadvantage is that the nearer the price comes to what employers would have to par in the absence of MES

Workfare, the more likely they are to take on 'already employed' labour rather than dole queue labour, hence the 'natural level of unemployment reducing' effect of MES Workfare is reduced.

The Variable Elements in MES Workfare

In addition to the above mentioned four variables than can be used to control displacement of normal employees by MES Workfare employees, MES Workfare incorporates several other elements that can be varied by large amounts depending on how one views the relevant costs and benefits. These are as follows.

1. The period of unemployment allowed before sanctioning those who insist on remaining unemployed.

2. The size of the sanction, that is the amount of benefit reduction.

3. The sophistication with which the system is run. The bare essentials are obvious: government must keep track of who is working for which employer (something it does anyway in most developed countries) and must administer some method of keeping control of the total number of MES Workfare people, like one or more of the above four methods. But over and above these basic requirements there are numerous possible refinements. For example employers and employees could report back to government about each other with a view to weeding out employers trying to abuse the system in some way and with a view to sorting out the unem-ployables from the employables.

4. The wage paid to those doing MES Workfare.

5. Number of MES Workfare people.

6. Number of unemployed. It might perhaps seem that since the aim is to remove people from the dole queues and into MES Workfare, that the number of unemployed and number of MES Workfare people would change inversely or even that the sum of the two would equal some constant. However neither of these would necessarily obtain; for example, a very harsh policy would result in the sum of the two declining.

7. National Income

It is not the purpose of this paper to advocate any particular level for the above seven variables. A few paragraphs will however be devoted to showing that MES Workfare is a flexible policy, that is to showing roughly by how much some of the above variables can be varied. The relevance, of this is that to the extent that it is a flexible policy, it is one that can form a permanent part of overall employment policy regardless of changes in the political climate, or changes in how leniently or harshly it is deemed desirable to treat the unemployed. We start with wages.

The Wage

The wage paid to MES Workfare people is made up of the hourly rate and hours per week. The higher the wage, the less the incentive to seek normal jobs, the effect of which would be inflationary, though the wage needs to be at least a token amount above unemployment benefit. As to hours worked, it is possible in some cases that unions would insist on some minimum hourly rate; thus to keep the weekly wage within limits, the work might well have to be part time. This meshes nicely with the fact that it might bl: desirable to leave those concerned with some free time to job search. The above mentioned workfare scheme in Utah involved three days work a week and two days left for job searching (Germanis, 1983, p.144). An alternative would be to allocate MES Workfare people in pairs with each member of the pair working half a week. This would amount to one full time employee and would be of value where the vacancy needed to be occupied for every hour of the working week.

While as pointed out above generous pay for those on workfare has an inflationary effect, other things being equal, there is nothing to prevent relatively generous pay, as long as 'other things' are altered: in other words the reduced job search efforts by MES Workfare people could be compensated for by an increased job search effort by government employment agencies. But of course the price paid for this is a reduction in national income. This policy

of relatively generous pay is roughly speaking the position in Sweden and for the following reasons. One can argue the J.C.S.s there amount to workfare in that there is more pressure on the unemployed to get out to work than in the U.K. The pay on such schemes is the going rate for the job, and to compensate, there are about six times as many employment exchange people per thousand unemployed as in the U.K. This of course is a thoroughly crude analysis of Sweden's policy, but it illustrates the point.

While relatively small increases in pay for MES Workfare jobs over and above unemployment benefit can be countered easily enough by increased government employment agency job search efforts, the problems become much more serious as the wage for MES Workfare approaches that which the employees concerned would expect to get in their normal employment. Indeed if the net attractions of MES Workfare, taking into consideration the hours (probably relatively few), the demands of the work (probably fairly light), exceed the net attractions of a normal job, there is no way of inducing those concerned to move from one to the other. In Sweden considerable difficulty has been experienced sometimes in getting people to move from job creation work to normal jobs. A partial solution to this, suggested by Ashby (1988) is to hold back a proportion of the wage until those concerned get normal jobs.

The Sanction

Having considered the wage for MES Workfare, we now turn to the sanction. There is no question but that some sort of sanction is required, indeed most developed countries' benefit systems have sanctions for those who stay on unemployment benefit for too long. However there is evidence that the behaviour of the unemployed is less responsive to changes in the weekly income derived from unemployment benefit than to their perception of how efficiently the social security system is being run, that is how closely the unemployed think they are being watched (e.g. see Layard, 1986, Ch. 4; Burton, 1987: pp. 4-17, and Bernstein, 1982: 46-49). Also Sweden has relatively generous unemployment benefit, yet this does not result in high unemployment. Thus just as generous MES Workfare wages are feasible, though at the expense of administration costs, a light sanction is probably also feasible, but again at the expense of administration costs. (There has been a movement in this direction in the U.K. in very recent years in the form of 'Restart' interviews.)

Indeed, given the big difference between workfare as advocated in this paper and workfare in its more traditional forms, a light

sanction would make it *so* different from its traditional meaning that it would be something of a nonsense to call it workfare.

Turning now to a relatively large scale MES Workfare scheme with a relatively harsh sanction, there are some perfectly good arguments for this sort of policy. For example it could well be argued as did Beveridge (1942, pp. 57 and 58) that the maximum period of unconditional unemployment benefit should be closely related to age, with a six months maximum for older people reducing to practically nothing for youths. The logic in this of course is that young people can adapt to new jobs, MES Workfare or otherwise, relatively quickly. Indeed the above six month limit is not based on any objective criteria: one could well argue that if someone cannot find a vacancy in their normal profession within *two* months of becoming unemployed, that is quite possibly because demand for the profession has declined on a permanent basis or at least for a matter of years, hence the sooner they start gaining experience in some other working environment the better. If on the other hand a vacancy of the sort originally required turns up, then the person concerned will have lost nothing in doing a MES Workfare job, or other job, for a while. Indeed unless the person concerned is feeble minded, then they will almost certainly have gained something: there is almost no such thing as a job in which those with their eyes open do not learn something.

Further arguments on this point are set out under 'criticisms number nine' below.

As to reducing the time for unconditional unemployment much below two months, the argument against this of course is that of those made unemployed at any given point in time, the proportion finding jobs in the early weeks of unemployment is relatively high, but declines as time passes. In other words too short a period would result in a relatively large number of very short term MES Workfare jobs, the costs of which might exceed the benefits.

MES Workfare and Structural Unemployment

An important aspect of any employment measure is the extent to which it deals with types of unemployment *other* than the one for which it is designed. This is because it is impossible to gauge with any accuracy how much unemployment is frictional, structural, voluntary, cyclical and so on. MES Workfare scores quite well in this respect.

1. Like unemployment benefit it would act as a counter cyclical device, assuming it were so organised that the number of MES Workfare people varied with the number of unemployed. Arguably it would work better than unemployment benefit because it would

act from the supply side as well as the demand side. In other words if the number of MES Workfare people rose in a recession this would help keep employers' costs down and thus help them sell a relatively constant volume of goods. (Palmer, 1978; p. 36 suggests employment subsidies might make good counter cyclical devices.)

2. As to high unemployment regions one way of ameliorating the problem is a straight labour subsidy (which was tried in the U.K. about twenty years ago in the form of Regional Employment Premium). Clearly such regions require more *full time permanent* jobs, but part time temporary jobs in the form of MES Workfare would be a second best.

iii) Another problem, highlighted by Berthoud (1978), is the difficulty trainees have adjusting to their new jobs: many of them fail because the change is too abrupt or because they cannot compete with more experienced people in the trade concerned. The ideal solution as Berthoud makes clear is some form of transitional subsidy. However a second best would be MES Workfare. (This point is doubtless of relevance to Employment Training, a scheme introduced in the U.K. a couple of years ago.)

3. Unemployment is to a significant extent caused by the sheer inability or lack of intelligence of a proportion of the workforce. There are all shades of grey between

geniuses and morons, a point which crude devices like the minimum wage rules set out at the beginning totally fail to take into account. The ideal measure to counter a serious lack of ability is some form of permanent employment subsidy for those concerned. But again, a temporary subsidy in the form of MES Workfare would be a second best.

Criticisms of MES Workfare

There are numerous criticisms that can be made of MES Workfare, and some of these are dealt with below. They are listed in the contents page at the beginning so that readers can skip those that do not interest them

1. MES Workfare people would displace existing employees

This sub-section is divided into two. The first deals with actual displacement. The second deals with the possibility that fear of displacement would induce unions (or non-union labour) to obstruct the system.

Actual Displacement

A finite amount of displacement is bound to occur, but it would be those on the verge of being unemployed anyway who would get displaced: put it another way, employers would not register their

most valuable employees as MES Workfare; that way they would just lose them. Also this form of displacement occurs under the existing system: the unemployed and the least productive people *in* work are constantly displacing each other.

While displacement would usually be undesirable, there is arguably an instance of where it might be desirable: the displacement of permanent unskilled staff. It could be said that unskilled vacancies are best filled by those who temporarily cannot find jobs using their skills. If the latter people displace others from unskilled jobs and the displaced people move on to jobs using their skills or to training, that might make sense, though of course if the displaced person had no skills and could not learn any, the displacement would be undesirable.

It might be said in objection to the above that there cannot be many instances of skilled people occupying unskilled vacancies. It is certainly true that this would not obtain to any great extent in a free market, but unfortunately the labour market is a long way from being a free market: wages are to a significant extent determined by unions which have a positive dislike of free markets. For example the teachers' unions in the U.K. have long obstructed additional pay for mathematics and physics teachers relative to that of other teachers so as to deal with the shortage of mathematics and physics teachers.

Another example comes from the engineering industry in the u.K. which a few years ago found itself unusually short of skilled workers and did some research to find out where the skilled employees had gone. A significant proportion were found doing unskilled jobs like postmen. The reason for this was doubtless not entirely unconnected with the fact that Post Office unions are in a position to exploit the monopoly position of their employer, whereas engineering firms face genuine competition.

Another type of displacement to which some readers might wish to point is the type that would occur if a government introduced MES Workfare but subsequently failed to raise demand, or failed to raise it by an amount that corresponded to the reduction in the natural level of unemployment brought about by MES Workfare. This is a trivial objection to MES Workfare and for the following reasons.

Every device employed by governments to reduce the natural level, training or subsidised employment agencies for example, suffer the same defect; that is governments normally have only the vaguest idea as to by how much such measures reduce the natural level. Furthermore they do not earmark particular amounts of increased demand to take advantage of the reduced natural level.

This is because while no government can ever know exactly where the natural level is, it can nevertheless keep the *actual* level of unemployment hovering around the natural level by doing exactly what every government does, namely keeping demand as high as is consistent with avoiding too much inflation.

i) Apart from the free market, there is only one other known method of resource allocation: the bureaucracy, which in the case of labour equals direction of labour. Unions do not like the latter either. The policy of the trade union movement in the U.K. thus seems to be: obstruct both of the basic methods of getting people into jobs and then blame whatever government is in power for the resulting unemployment.

Another form of displacement is that which occurs with *any* attempt to subsidise an over priced type of labour into work: there is always a finite increase in unemployment amongst other types of labour. This is because subsidising the overpriced type of labour into work must add a finite amount to inflationary pressure, hence a reduction in inflationary pressure must be obtained from somewhere to compensate. With luck, the overpriced type of labour will be on a relatively flat part of its Phillips curve and the rest of the labour force on a relatively steep part, hence a relatively large increase in employment for the overpriced type of labour can be brought about in exchange for a small decrease in employment for the rest of the labour force. (see Baily (1978) for more on this.)

Fear of displacement

Fear of displacement would induce unions or even non-unionised labour to make MES Workfare unworkable.

There are several answers to this.

1. The proportion of the workforce that is unionised is less than half in the u.K. and less than a quarter in the U.S. Thus there is not "much chance of unions as such totally obstructing the system. Furthermore, MES Workfare as pointed out earlier is somewhat more suited to the private sector than the public sector, and the private sector is less heavily unionised than the public sector.

As to Sweden where over three-quarters of the workforce is unionised, there is a yawning gulf between the behaviour of unions in Sweden and in the U.K. The policy of unions in Sweden is (or certainly was) to make an intelligent assessment of any new proposal and back it if it looks like being in the interests of the country as a whole.

2. The mere existence of an obstruction is not necessarily an argument for paying much attention to it; unions have on occasions obstructed new technology ever since the Luddites and in the U.K.

have obstructed half the training schemes introduced since the second World War. This is hardly a good argument against new technology or training. (This is not to imply that it is only working class unions which obstruct training: middle class 'professional associations' (which are in effect trade unions) can be equally guilty, for example the medical profession in the U.S. and Australia places strict limits on the numbers of doctors being trained so as to boost their incomes. Anyone interested in what the free market price for doctors would be might care to look at Russia where doctors get about the same as truck drivers.)

3. Every employer is continually hiring new employees for various reasons: replacement of retiring employees, fluctuations in demand and so on. It is far from a rarity for an employer to find some of the new recruits more efficient than existing employees, and hence to sack or make redundant the less productive existing employees at the first opportunity. In other words if employees are going to obstruct MES Workfare, one has to wonder why they do not obstruct *all* new employees.

4. Once MES Workfare was generally understood, permanent employees would not object to MES Workfare because the latter would be seen as temporary. There is no widespread obstruction in the hiring of temporary labour from temporary employment agencies.

5. In practice in the U.S., the objections from public sector unions to workfare people have not been of such proportions as to scupper it.

Returning to temporary employment agencies for a moment, it might seem that MES Workfare would cut into their share of the market. No doubt this would happen to some extent and protests would ensue just as protests came from existing employment agencies when Job Centres first arrived in the U.K. However MES Workfare and temporary employment agencies would be in essentially different sections of the market. The former deals with relatively unproductive labour allocated to employers at little or no charge whereas the latter deals with labour that is fully qualified (or at least ostensibly qualified) for the jobs concerned and is charged to employers at *above* the normal hourly rate for the type of labour concerned.

MES Workfare would result in some near futile forms of employment

The above would obtain to some extent. But there are several reasons for thinking this does not matter too much.

First, at least low output work would provide the unemployed with experience of new working environments which for youths or those with redundant skills might help them decide in which environment they wished in the future to work.

Secondly, unemployment is to a significant extent a self perpetuating phenomenon and for several reasons: (i) it can become a way of life; (ii) a closely related phenomenon is the 'discouraged job searcher' effect - when people cannot find a job, some of them cease looking even when there are jobs available; and (iii) there is the so-called dual labour market phenomenon - first there are those with secure jobs, some of them not well paid but secure nevertheless, and secondly there are those who get shifted from one insecure job to another, often as not via the dole queue. The latter group can be forgiven for failing to seek work if their past experience tells them that after a short while they will end up back where they started, on the dole. MES Workfare, even where it involved very low output, would reduce the extend of these 'self-perpetuating' forms of unemployment.

Thirdly, it is very hard to say to what extent low revenue product proves that the output really is of little value or utility. People are unemployed not necessarily because whatever they wish to produce is of little value or utility, but often because there is a lack of demand or money with which to pay for their output.

Finally, the criticism that MES Workfare would involve work of very little worth is not one that a sizable proportion of the population are, in a position to make because of the very low output work which they themselves advocate. For example advocates of J.C.S.s can hardly make the above criticism of MES Workfare.

Also, the political left has over the last few decades in the U.K. usually been keen to see uneconomic jobs subsidised, sometimes even where output is literally zero. For example the least economic coal mines prior to the last coal miners' strike in the U.K. were not just making a loss; the value of coal coming out of the mines did not cover the cost of equipment, fuel, and so on consumed. Output was zero or negative. Just the same goes for those employed making Concorde (supported it must be said by people from right across the political spectrum).

There are few workshy amongst the unemployed, thus no form of workfare is justified

The answers to this are as follows.

1. A study of unemployment benefit claimants in the U.K. by Daniel (1974, pp. 28 and 124) found that around 12% had no

intention of seeking work. Of the remainder, just under a half were making less than one job application per month. This survey was done at a time of labour shortage; there were thus a relative abundance of jobs to apply for. A survey by the Department of Employment when unemployment was much higher found 25% had taken no steps to find work in the week of their survey. (D.E. Gazette, October 1985, p. 393).

The reasons given for not job searching, at least in the case of the above 12%, were reasonable enough. About three-quarters of these gave ill health, family or domestic problems or the fact that they regarded themselves as too old to work as the reasons. It is a nonsense to count these people as unemployed. Doubtless some of them should get some sort of benefit, but it should not be called unemployment benefit.

Thus it is not suggested here that a large proportion of unemployment benefit claimants are workshy. It is suggested however that the proportion not looking for work is quite large enough to help justify something like Workfare which helps distinguish the genuinely unemployed from others.

2. When the unemployed are faced with a serious workfare sanction or when Social Security staff start making serious enquiries as to whether a given group of unemployed are actually able to work and are seeking work, it is common for up to half of them to cease claiming benefits. (See Burton, 1987; p.9 and 17 for the U.K. and Bernstein (1982) pp.46 to 49 for the U.S.

It is probably not entirely a coincidence that the social security system in the two European countries with the lowest unemployment levels over the last thirty years in Europe, Switzerland and Sweden, *do* make what might be called *"serious enquiries as to whether the unemployed are actually able and willing to work".* For example in Switzerland the unemployed have to report twice a week to the unemployment benefit office on their job search efforts (Fluckiger, 1985, p. 32).

It might be argued against the above Swiss practice that it constitutes harassment of the unemployed. The answer to this is that when someone is being paid to do something, engage in a job search or anything else, it is perfectly reasonable to check up on what they are doing. Most employees have their seniors checking up on what they are doing much more often than twice a week. If the Swiss practice constitutes harassment, then every other employee on planet Earth is being harassed.

iii) The above suggestion that an expansion of the 'welfare culture' has a lot to do with the apparent rise in unemployment gains some sort of support from the figures for invalidity benefit in

the U.K.: the number of 'invalids' has trebled to just over a million over the last twenty-five years despite the health of the population improving in the meantime (see Disney, 1991 for more on this). To some extent this more relaxed attitude to the disbursement of taxpayers' money is acceptable as we grow richer; indeed both unemployment and invalidity benefit are in effect being used as flexible retirement systems; the proportion of those over 55 on these benefits is relatively high. But whether acceptable or not, it is important not to count people as unemployed when they are effectively retired.

4. The proportion of the unemployed in the U.K. who are unemployed for over a year has risen from under a quarter in the early seventies to just about a half in the mid-eighties. This is certainly consistent with increased voluntary unemployment. In other words if an increased number of people who are essentially not in the labour market are picking up unemployment benefit for as long as they can because it is there for the asking, then the result will be a rising proportion of long term unemployed.

Time is needed for job searching

Mattilo (1974) found that fifty to sixty per cent of job changers in the U.S. do so with no intervening unemployment. In addition to this there is a proportion that finds its new jobs before leaving its old jobs, but decides to take a period of unemployment, at the taxpayers' expense, between jobs. Thus job searching at the same time as working cannot be desperately difficult.

Furthermore there would be nothing to prevent those intent on spending a large amount of time job searching being excused MES Workfare jobs as long as they produce evidence that they have been job searching. In Switzerland *all* the unemployed have to keep a record of job applications, plus there is a fine of up to 20,000 Swiss Francs (about £8,000) for anyone faking their records.

MES Workfare is little different from some other subsidies, actual or proposed

Given the vast number of employment schemes and subsidies that have been proposed and/or implemented and/or abandoned in developed countries over the last few decades, it is certain that MES Workfare will be similar to some of them. It would take an entire book to deal with all of them, thus only a few are considered below.

First, though, where MES Workfare *is* similar to an existing system, there is no demerit in MES Workfare. The purpose of this

paper is to set out some theory against J.C.S.s and in favour of temporary subsidised jobs with existing employers. Where a temporary subsidised employment scheme already exists, this theory will underpin it, and may. also be helpful in identifying weaknesses.

One marginal subsidy that might appear similar to the subsidy on which MES Workfare is based is the one that rewards employers in proportion to the increase in each employer's workforce as compared to some base or starting date. Perhaps the earliest example of this comes from Pigou (1927), but there has been a steady stream of advocates of the same idea ever since and several instances of the idea being implemented. Unfortunately many of the attempts to discredit the idea have been somewhat laboured, when in fact the fallacies in the idea are quite simple. The most obvious flaw, which numerous authors have pointed out, is that the longer the subsidy lasts, the more absurd it becomes, to illustrate: ten years after the starting date relatively new firms would be receiving large subsidies, whereas similar competing firms whose workforce had remained constant over the period would get no subsidy at all.

This has led some proponents of the idea to advocate it as just a short term measure. However, it does not even reduce the natural level of unemployment in the short term and for reasons connected with the decline in the marginal product of labour set out at the beginning, which are thus: the subsidy does nothing whatever to alleviate the fundamental problem that arises as full employment is approached, namely the fact that 'already employed' labour becomes better value for money than dole queue labour. That is, the subsidy does nothing to raise the relative attractions of the latter.

There is another category of employment subsidy with which MES Workfare might be confused, namely other subsidies aimed at the less skilled or productive members of the workforce (for example see Jackman (1986). Methods used to identify the people involved include low pay (as in Jackman's proposal), lack of skill, or the mere fact of having been unemployed for some time. The essential difference between these and MES Workfare is the size of the subsidy per person and the fact that MES Workfare is aimed at the *temporarily* unproductive whereas the above subsidies are aimed at the *permanently* unproductive (though the latter subsidies would doubtless in practice end up supporting a number of short term jobs).

The difference between MES Workfare and the other above mentioned subsidies is essentially an example of the point made at

the outset, namely that MES Workfare is aimed at frictional and voluntary unemployment, whereas other remedies are best suited to structural unemployment.

Employment Training

The above, (ET), is a scheme introduced in the U.K. a couple of years ago. It has similarities to MES Workfare. ET is designed to ease the longer term unemployed back into work by a combination of work and training, either on J.C.S.s or with existing employers. It can be argued that ET amounts to workfare in that at about the same time as introducing it, the government started tightening up on unemployment benefit by means of 'Restart' interviews. Readers with a grasp of the arguments behind MES Workfare will have no difficulty in seeing differences and similarities to ET, but for those who want to see the two compared and the weaknesses in ET spelled out, the following para-graphs do this.

First, as to the J.C.S. element in ET, J.C.S.s are deal with near the outset. Turning now to ET with existing employers, the most obvious characteristic in ET which is indicative that something is wrong is thus: at least ninety per cent of the unemployed including the medium and long term unemployed have always succeeded in getting new jobs *without* any form of retraining. This is a very stark and strange contrast to the fact that *all* those on ET get some form of training. In other words the assumption that because someone is unemployed they therefore need, or can benefit from, training is totally false. This is not to suggest we do not need more training; possibly we should double expenditure on it. It is just the above assumption that is wrong.

To illustrate, there are several categories of labour for whom a straight employment subsidy *without* training (MES Workfare or other) will usually be the most appropriate measure. These are as follows:

1. The majority of the unemployed in the U.K. have some sort of paper qualification, some of them good qualifications. The latter are unlikely to benefit from the sort of relatively low grade training offered by ET. But they *could* do with a temporary job in their desired profession. Furthermore, society at large would benefit from their services.

2. A slightly different category are those about to start or halfway through training for some profession where training is well organised, or better organised than on ET. University students during their vacation are an example.

3. There are the voluntarily unemployed. These people need to be faced with the choice of working or ceasing to claim benefits.

MES Workfare gives them that choice. They may subsequently engage in training, but that is a separate issue. Furthermore it is questionable as to whether the taxpayer has an obligation to pay for the training of those whose attachment to the labour market is a half-hearted one.

4. There are those near the end of their working life. Again, it is highly questionable as to whether taxpayers' money should be devoted to training here. A straightforward employment subsidy, MES Workfare, or other, is probably better.

It might be claimed in objection to the above four points that there *are* schemes which offer short term subsidised employment without training, hence the above criticism is invalid. The answer to this is there are no such schemes at the time of *writing* (end of 1991). However employment and training schemes are set up and abandoned with such rapidity in the U.K. that this may have changed by the time of *reading.*

A weakness in formal training on existing employers' premises for a *specific length of time* which ET involves is that the labour concerned is not available to the rest of the labour market, hence ET in this form does not reduce unemployment (readers who do not agree, see Appendix III). Alternatively, where the training is not for a specific length of time, it follows that the training cannot be good quality (see penultimate paragraph of criticism No 10).

The implication of the above is a serious one, namely that any combination of work and training on the employer's premises which lasts for a specific length of time, which we shall call apprenticeship, is undesirable. Certainly there is a clash between the requirements of someone who •wants a given amount of practical experience and theoretical learning as quickly as possible, and the requirements of the labour market which needs as much flexibility as possible. The answer to this little problem is that there is nothing wrong with a substantial proportion of those who wish to enhance their skills *aiming* to do so by means of apprenticeship as long as they are open to the influence of the market forces that alter the ratios of different types of labour when the pattern of demand changes. To illustrate with a simple example, in an economy consisting of just farmers and builders in a 50:50 ratio with equal numbers of apprentices, it would be fatuous for the apprentices or for the society at large to ignore a change in demand that altered the ratio to say 60:40. Some apprentices halfway through their apprenticeship would have to change, or it might pay some of them to learn both skills.

In short, there are good arguments behind subsiding education and training, and for subsidising short term jobs in the form of

MES Workfare or similar. It is questionable however whether the state should subsidise the tying down of people to particular employers for specific lengths of time.

MES Workfare would invite fraud

MES Workfare would certainly invite some fraud, but this must be set against the system it replaces or partially replaces, namely unemployment benefit. The latter consists at worst of offering people free money for claiming they cannot find work. It is hard to imagine a bigger invitation to fraud than this.

Indeed MES Workfare would consist of partially legalising and properly organising a fraud that is currently not exactly a rarity, namely working on the side while in receipt of benefits.

A fraud that MES Workfare would tend to give rise to would consist of employers registering employees who they regarded as temporary anyway as MES Workfare people. This fraud would be limited to some extent by the fact that employers like to have control of when a temporary employee leaves, whereas the employer would have less such control in the case of a MES Workfare employee. Nevertheless this fraud is a potential problem and might be particularly common in industries with a much higher than usual labour turnover, like the building industry. In view of this it might be necessary to have special regulations for such industries, just as in the U.K. there are special regulations in the building industry for the collection of income tax from sub-contractors because of the widespread defrauding of the income tax system that otherwise occurs. Alternatively this industry could be banned from employing MES Workfare people altogether.

Another possible fraud would be for an employer to register an employer as MES Workfare for the employee's first few months when the employer has every intention of keeping the employee permanently. The counter to this, of course, is to charge employers a relatively large amount (perhaps the full MES Workfare wage) for the initial months' use of the employee where the employee stays after the initial period.

MES Workfare jobs are temporary jobs and the latter are not worthwhile

One answer to this is that the average normal job lasts only between two and three years, with a substantial proportion lasting a matter of months. Furthermore there is a whole industry (temporary employment agencies) devoted to supplying employers with labour for a matter of weeks, days and even hours.

Another point here is that when employment rises under *conventional* policies, i.e. a straight rise in demand, labour turnover rises. Thus the additional jobs created under *conventional* policies are to a significant extent temporary ones.

Administrative Costs

The important question here is the relationship between overall costs and benefits. The administration costs of workfare in the U.S. seem to have roughly speaking equalled the benefits, in the form of output from workfare people and savings in social security payments to those refusing the work (Helms, 1983 and Schiller, 1990).

However workfare to date in the U.S. has been plagued by argument and muddle at least in a majority of states. Where there is a general agreement that it ought to work, like in West Virginia, then it works well (see Germanis, 1983; p. 78). Moreover there are benefits other than the above mentioned to take into account, like the work experienced and the 'employee to employer introduction' element, and the output from those who decide to get normal jobs rather than do workfare jobs or have their benefits reduced.

The unemployed should not be forced or induced into unsuitable jobs

A substantial proportion of the unemployed *do* take jobs unlike• their previous jobs. Daniel (1974, p. 103) found that of those finding jobs relatively quickly, 59 per cent described the jobs as "very different" from their previous jobs. It could well be argued that these people have no obligation to pay taxes to support other individuals who are declining to work because they cannot find jobs with which they are acquainted.

As to just *how* unsuited MES Workfare people would be to their jobs, this is hard to estimate. Certainly *some* of the vacancies and their occupants would be just the same under MES Workfare as under a straight rise in demand without MES Workfare. Also to the extent that MES Workfare involved people in unsuitable jobs, there would not be the same commercial pressure on such people as in the case of *normal* jobs to which the employees concerned were not suited.

As for the idea that it is wrong for skilled people to have to do unskilled work for a while, this is thoroughly strange in view of the fact that skilled people spend a considerable portion of their time doing unskilled work both in the domestic and working environment. Brain surgeons dig their gardens during the weekend and help their spouses with washing the dishes. As to the working

environment, anyone employed by a small firm has to 'muck in' and do any and every job that needs doing. The employees of small firms are not famous for nervous breakdowns or other harm that comes from this.

The exact extent to which MES Workfare would induce people into unsuitable work is intimately tied up with the cause of the rise in unemployment over the last twenty years or so. To illustrate, if the cause is an increased specialisation in the labour market, perhaps combined with a failure to train people for specialist jobs, then MES Workfare *would* induce people into relatively unsuitable jobs. However there is little evidence that the degree of specialisation or standards of training are vastly different to twenty years ago.

In contrast there are at least a couple of explanations for the rise in unemployment which do *not* imply any increased specialisation. First there is the rise in voluntary unemployment dealt with under criticism No 3 above. Secondly it is possible that trade union wage claims go through the roof at a higher level of unemployment than twenty years ago and that this is the cause of the rise in unemployment. Certainly the trade union 'mark up' in the U.K. (that is the additional pay a union member gets compared to a similar non-union person) rose from about five per cent in the 1960s to about ten per cent in the 1980s, and then declined at the start of the '90s. The mark up has thus mirrored changes in unemployment to some extent which is evidence (albeit crude evidence) that unions are to some extent the cause of unemployment.

Finally, the only reason Beveridge gave for people not having to do jobs other than their normal ones was that this might reduce their chances of getting the latter. This was a valid point in the days when physical labour was extremely arduous and half the population did not have running hot water: turning up for an interview for a clerical job looking like a labourer obviously had disadvantages. But the above no longer obtains; physical work is much less arduous now, and everyone has decent washing facilities.

MES Workfare does not incorporate training

The word 'workfare' has been used in too broad a sense over the last twenty years in the U.S. and has incorporated in some instances pure training and no actual work; in others it has involved pure job searching and no work or training.

So far as the word in the sense used in this paper goes, workfare has nothing specifically to do with *formal* training, as distinct from

'learning by doing' which is an inevitable part of any- job, workfare or otherwise. Thus MES Workfare *does* involve some training, namely the learning by doing element.

Anyone who thinks that learning by doing is somehow inferior to formal training should note that there is far from universal agreement on this point amongst those actually employing trainees and amongst trainees themselves (see Roberts, 1986; Ch. 7). Of course a sizable proportion of what was learned in MES Workfare jobs would be wasted because the jobs are temporary, but then there is always a large wastage element in training (e.g. see Berthoud, 1978).

As to formal training, there is a fundamental clash between the basic characteristics of a workfare job and the characteristics of any formal training, which clash is as follows. The only efficient way to run any formal training involves courses running for a *specific length of time.* This is because unless one has a teacher-to-pupil ratio of one-to-one which is exorbitantly expensive, the different pupils on a particular course must be taught as a group. Workfare jobs in contrast last for a *random length of time.* Thus no formal training can be tied to a MES Workfare job. Something like evening classes which are *not* tied to the job, are of course quite different.

In case the above paragraphs give the impression that training is being belittled, this is not the intention. Doubtless we need more training, but this thesis is concerned primarily with employment. The question as to what training accompanies existing or additional employment is a separate issue, and is not an issue on which the author claims to be an expert.

It is not only the unemployed but also those in employment who would be attracted to the relatively easy going and unproductive MES Workfare jobs, hence the latter might reduce national output

This weakness in MES Workfare is a potentially serious one. The only counter to it is to keep control of the total number of MES Workfare jobs and keep it in line with the number of people induced to come off unemployment benefit as a result of MES Workfare.

This weakness is not of course unique to MES Workfare; it is a characteristic common to any attempt to reduce unemployment by creating jobs at the lower end of the market. J.C.S.s are an example, as was the entire Russian economy up to recently (see final paragraphs). Moreover it cannot be said that creating jobs at the lower end of the market is a weakness in MES Workfare or any

other measure with this characteristic; the unemployed tend to consist of the less skilled and competent members of the workforce. If jobs are to be created for them, they will inevitably tend to be those towards the lower end of the market.

MES Workfare would not improve the inflation/unemployment trade-off to the extent that inflation stems from areas of the economy other than the labour market

The above contains a truth but not a very significant one.

The factor of production that runs into short supply as full employment (of labour) is approached is *labour.* That may seem a statement of the obvious, but there is always an abundant supply of people who have not grasped the point, for example advocates of labour supply reduction cures for unemployment - early retirement, job sharing, overtime bans, etc. (see Appendix III).

There are any number of surveys of the proportion of factories and plant working at capacity which always produce roughly the same result: about twenty per cent at any one time are working at capacity, about twenty per cent are working at about ninety per cent capacity, about twenty per cent are working at eighty per cent capacity and so on. The proportion that reach capacity when demand rises by say five per cent is very small (maybe about five per cent). As to shortages of physical goods, these can usually be alleviated by imports.

Finally there is a vast amount of literature in which it is assumed without question that reducing unemployment is essentially a *labour market* question. Anyone wishing to claim that unemployment is to any significant extent caused by plant or equipment shortages is not disagreeing with MES Workfare as such but with probably a large majority of labour market economists.

The elasticity of demand for unproductive labour is low thus making labour available at little or no charge would not create many vacancies

The above is a popular sentiment, particularly with those who advocate minimum wage laws. It displays an ignorance of elementary economics. The opening pages of most basic economics text books make the point that humanity's needs and greed are infinite. In other words there is almost no limit to the work that can be found for labour if it is free or near free. Indeed

the advocates of J.C.S.s never tire of telling us that there are an infinite number of socially useful jobs to be done. They are correct.

There are a number of reasons why the undoubted elasticity of demand for labour as it approaches the 'free' level does not translate into vacancies. The main one is that supply is also elastic; as the wage drops towards unemployment benefit levels, the amount of labour forthcoming falls away dramatically, and employers know it. Thus the latter do not bother creating many low paid vacancies under existing employment policies. Under MES Workfare, the number of such vacancies would rise.

As distinct from allocating MES Workfare people to existing employers, there is no reason they could not be allocated to keeping old aged pensions' gardens tidy. That itself would absorb about half a million unemployed in the U.K. The elasticity of demand for the labour is not the problem. The problem is how many of the unemployed are capable of turning up at the right place at the right time, and whether anything that brings a bead of sweat to their brow is too much for them, and whether they are capable of carrying out simple instructions. At a wild guess, the proportion of the unemployed in the U.K. capable of the above might be somewhere between half and three-quarters.

MES Workfare would gain a reputation for including the least productive and most troublesome employees, which would induce employers to avoid it altogether.

This is certainly a potential problem, but exactly the same applies to the government subsidised employment agencies in the U.K. (Job Centres), that is, employers aiming for high quality labour tend to recruit via private employment agencies or through advertisements in the press, whereas employers happy with lower quality labour tend to go to Job Centres. However this is only a *tendency,* and is not generally held to be a good criticism of Job Centres.

MES Workfare people would get used as cheap labour or be put on to menial work

First, the word or notion 'menial' is unquantifiable and thus of no practical use. Placing one brick on top of another all day long, that is, bricklaying, is pretty menial work (particularly in a winter wind).

If the above criticism is valid, this presumably means we should stop building houses. Collecting the garbage, labouring, lorry driving, train driving and a hundred other occupations are not

exactly intellectually stimulating. Presumably these activities should be banned also.

Furthermore, there are numerous jobs which are on the face of it far from menial, which those concerned cannot stick - for example more school teachers in the U.K. are actively seeking alternative employment than members of almost any other profession. This presumably makes teaching menial.

If the word 'menial' means anything at all, one of its chief constituents is the monotony of the work involved. This is exactly what MES Workfare would not involve, that is it would involve people in more variety than they would otherwise get.

It is interesting to speculate on why anyone should employ terminology that is for all practical purposes devoid of meaning. The answer is probably that they are not interested in doing anything of practical use; their main objective is to appear socially concerned and caring and this is most easily done by making poorly thought out criticisms of existing or proposed economic or social systems (which, like any unconstructive criticism, often just makes the system worse). Indeed the main purpose of this paper is to put right the effects of a collection of people who at best have hearts bigger than their heads and at worse are vociferous and incompetent do-gooders; the instigators of minimum wage rules of one sort or another.

Some Final Remarks• Russia's Workfare

In July 1991 the Russians announced their intention of introducing unemployment benefit equal to half the national average wage. Furthermore the unemployed are to be allowed to do a limited number of jobs while still in receipt of their benefit, which of course has similarities to MES Workfare. But it remains to be seen how well this is administered. Given their other problems, the chances of it being administered with any sophistication are minimal at least for a year or two.

As to the employment system in Russia before the recent dramatic changes there, this amounted to workfare on a grand scale. There was no unemployment benefit, but a ready availability of low output jobs in the absence of productive ones, for those claiming to want work. The mistake under this system (as at least one Russian economist, Popov, pointed out (see Binyon, 1981) was that the pay for the low output jobs was often as not little different from the high output ones. Thus employers with relatively productive jobs on offer frequently could not fill the vacancies even though they knew there was suitable labour in the vicinity, labour engaged in near fatuous activities. So serious was this

problem that Popov claimed unemployment was preferable to the 'high wage/unproductive' work. This experience will hopefully underline the importance of not offering too generous wages for MES Workfare jobs unless government employment agency job search efforts are greatly expanded to compensate.

As an alternative to unemployment, it is interesting to note that Popov advocated much the same as the typical workfare advocate. He claimed there are an infinite number of 'socially useful' things to be done, like keeping the streets free of litter, and that the unemployed be put on to this sort of work.

To paraphrase Popov with his claim that unemployment is preferable to high wage-unproductive work, the claim of this paper is that temporary, subsidised, modest wage/unproductive work with existing employers, for all its lack of glamour, would reduce unemployment.

Appendix I: The Irrelevance of Cost per Job

The idea that cost per job created by a subsidy or J.C.S. is no criterion by which to judge it is not new, e.g. see Baily (1978) p. 51, or Wachter (1978) p. 82. However the latter and other authors do not pursue the matter at length, thus a more detailed and hopefully better argument is set out below.

The argument is in two halves: the first deals with subsidies that aim to lower the price of types of labour in surplus, so that demand can then be raised. The second half concentrates on the spurious claim that there is merit in minimising the additional demand per job.

The *reason* for J.C.S.s low cost per job is thus: employment subsidies and schemes can be divided into two categories. First there are those that *subsidise all* members of a particular type of labour, for example all youths. These will be called blanket subsidies. Secondly there are those that subsidise just the additional jobs created. These will be called marginal subsidies. J.C.S.s belong to the latter group, which clearly involves an apparently lower cost per job than the former.

The fundamental reason why cost per job is irrelevant is that the total cost is made up of two or three entirely different types of cost which in no way can be compared to each other. Thus the *total* cost per job is irrelevant. It is the make-up of this total, or the *type* of cost that is of supreme relevance.

It is generally accepted that there are at least *two* different types of public expenditure cost: first there are resource costs or real costs (for example expenditure on the military or on a civil engineering project) and secondly, transfers (for example transfers from taxpayers to old aged pensions). But there is a third not so widely recognised cost, sometimes called an unreal cost, which consists of government expenditure which ends up back in the very same taxpayer/consumers' pockets from whence it originated. This occurs when government subsidises something consumed by the population at large. To the extent that this expenditure ends up in the form of lower prices for the very same people who paid the tax that financed the subsidy, such expenditure is not even a transfer.

Where the subsidy is implemented for no good reason, a straightforward distortion of prices occurs, and methods for calculating the resulting reduction in welfare or national income are adequately set out in the text books. Thus the total amount of the subsidy can be split into three types of cost. First there is a real cost, that is administration costs plus the reduction in national income. Second and third there are transfers and unreal costs.

Returning now to blanket employment subsidies, we are concerned here with subsidies of specific underutilised types of labour, the aim of the subsidy being to increase employment amongst the type of labour concerned, with, hopefully, little decrease in employment elsewhere in the labour market. Unless something is seriously wrong somewhere, national income does not decline, it rises. Thus one cannot talk of any real or resource cost being involved (apart from administration costs).

As to J.C.S.s, these for reasons spelled out in the main text involve a misallocation of *real* resources as compared to the allocation that pertains when the labour concerned is subsidised into employment with existing employers. The public expenditure costs on the other hand of blanket subsidies are largely unreal costs. That is, assuming the normal competitive processes are working, such expenditure (minus administration costs) ends up back in the taxpayer/consumer's pocket. Even if the normal competitive processes are *not* working properly, in other words if some of the subsidy leaks to profits, this is still primarily a transfer (from taxpayer to employer) and not a resource cost. Furthermore the fact of competitive forces not working properly is not a weakness in the blanket subsidy. It is a more general problem and will doubtless result in the misallocation of resources that have nothing specifically to do with the subsidy.

The above argument about the largely unreal nature of the costs of blanket subsidies is certainly valid if the labour concerned suffers excess unemployment merely because it is overpriced, for example because of minimum wage laws in the case of youths. In short, if the problem is an incorrect price then the solution, pretty obviously, is to correct the price.

But, of course, an artificially high price is not necessarily the explanation or the whole explanation for the unemployment concerned, for example unemployment amongst youths is certainly on the high side to some extent because of youths' tendency to quit their jobs voluntarily more often than other groups. This, however, is no compensation for J.C.S.s. In other words the fact of an employment subsidy *not* being a cure for a particular type or cause of unemployment is no proof that a J.C.S. *is* a cure, for example it is very hard to see how a J.C.S. can get at the above mentioned tendency of youths to quit their jobs.

The conclusion is that the misallocation of resources caused by J.C.S.s involves *resource costs,* whereas while the public expenditure costs per job of blanket subsidies are higher than for J.C.S.s the former involve largely *unreal costs.* Thus the relatively low cost per job of J.C.S. is no merit.

Some readers may be worried that the above argument implies a vast expenditure on employment subsidies. One answer to this is that the sole purpose of blanket subsidies is to alter the relative price of different types of labour. This can be achieved as much by an employment tax as an employment subsidy, or by a combination of the two, that is taking the type of labour that is too cheap and subsidising the type that is too expensive (see Jackman (1986) for an example of this). Indeed for those who insist on claiming that subsidies leak to profits, a tax/subsidy regime is the answer, since this cannot involve any net leakage to profits.

Additional demand per job.

We now turn to a quite different and spurious cost per job argument which is concerned solely with net additions to aggregate demand. The argument is that increasing public expenditure creates more jobs than the equivalent amount of tax cut. Hence, so it is argued, the former is better value for money than the latter, or creates more jobs for a given impact on

inflation than the latter. This is sometimes cited in favour of J.C.S.s since these involve public expenditure rather than tax cuts. For example Richard Layard in an otherwise very informative and well worth reading study of unemployment uses this argument (Layard, 1986 p. 90). For another example see Metcalf (1982). The basic flaw in this argument is that while some factors that influence demand per job *are* of relevance, others are definitely not, hence demand per job *as such* is not relevant. The fallacious demand per job arguments are as follows:

1. Raising demand does not involve any sort of resource cost: it merely involves printing more money and making book-keeping entries at banks. In the words of Armstrong (1978) p. 278, "Exchequer costs are illusory". Thus these costs cannot be compared to, or set against, the *real* benefits or *real* output from various forms of employment as Layard does. To illustrate with Layard's figures, Layard argues that the Exchequer cost of a J.C.S. job is £2,000 per annum, whereas the equivalent cost of a job brought about by tax cuts is £40,000 a year. Hence, so he argues, unless output from the tax cut job is more than 40,000/2,000 times more than the J.C.S. job, the latter will be better value for money. The fallacy here is that the *real* cost of the £2,000 is nothing at all, and the same goes for the £40,000. Thus the only relevant question is whether the tax cut job involves greater net product than the J.C.S. job and there are strong reasons set out earlier for thinking it does.

2. The main reason for the relatively large increase in demand per job required by the private sector is simply that the private sector *sells* its output whereas the public sector *gives away* its output for the most part. The extra demand is *required* by the private sector. To this extent, there is no reason why the additional demand a private sector job entails will cause any additional inflation.

3. Another argument sometimes produced by the 'low demand per job' enthusiasts is that the large demand required by a private sector job somehow seeps into the rest of the economy and causes inflation there. The answer to this is that if it did, it would cause additional employment there which means that the original demand per job calculation is wrong, which is a self contradiction.

4. It is not demand in isolation that causes inflation. It is the *relationship between* aggregate demand and aggregate supply that counts; to be more precise, it is the pare capacity in the ultimate source of all supply, the labour market, that really counts. Inflation takes off when labour market spare capacity becomes inadequate. Whether this inadequacy comes about as a result of increased demand or not is irrelevant. Layard himself quite correctly makes this point in his Chapter 12 in which he argues against labour supply reduction cures for unemployment (early retirement, job sharing, job splitting, emigration, etc.).

In short, removing people from the dole queues and into work with little increase in demand is no great achievement, it can be done with *no increase in demand at all* in the case of early retirement, but this is no merit in the latter.

5. Another point sometimes raised by the low demand per job enthusiasts (which in effect is probably just a variation on some of the above arguments) is that the multiplier effects of some forms of employment creation are low relative to others. The answer to this is that a low multiplier is no demerit; it can be countered by in effect printing more money, and that costs nothing.

6. The above points themselves destroy one final argument put by the demand per job enthusiasts, namely the inflationary expectations argument. The argument is that if demand per job is kept down, people will not expect inflation, hence the latter will be ameliorated. The answer to this is that if the above five points are rational and people's inflationary expectations are rationally based, then demand per job will be irrelevant for them. For example, if government announced it was going to remove people from the dole queues and into jobs by means of early retirement, this would involve *no* increase in demand per person removed from the dole queues; but if the 'inflation expectors' behaved rationally they might well be right to expect inflation.

Having criticised some demand per job arguments, it is worth repeating that other demand per job arguments are valid. For example the unemployed tend to consist of the less productive members of the workforce, thus any measure to provide work for them will involve a relatively small increase in demand per job. But the fact remains that demand per job *as such* is irrelevant. As an illustration of this irrelevance, the main measure advocated in this thesis, MES Workfare, has a relatively low demand per job for the above reason. Also its cost per job in the sense used in the first half of the appendix is low because it is a marginal rather than blanket subsidy. On the other hand the measure advocated near the outset for dealing with youth unemployment was a blanket subsidy, which involves a relatively high cost per job. There is no contradiction here: there are solid arguments behind both measures.

Finally, having criticised one small part of Layard's work, readers not already acquainted with his work are advised that if they want to read something worthwhile on unemployment, they cannot do much better than read Layard's works.

Appendix II: Weaknesses in some criticisms of job creation schemes

This appendix concentrates primarily on J.T. Addison's (1979) paper entitled 'Does Job Creation Work?'. This is one of a collection of papers in a book entitled 'Job Creation - or Destruction?'

The first weakness in this paper is its definition of the phrase job creation. The phrase is used to start with simply as a synonym for 'employment subsidy'. There is in fact no sharp dividing line between J.C.S.s as defined earlier in the main text of this present paper and employment subsidies: a J.C.S. is simply an employer who is in receipt of a subsidy that is so large or is structured so that the employer can pay little attention to the usual requirement placed on employers namely that they minimise numbers employed.

The first two sections of Addison's paper deal with employment subsidies pure and simple. The third section is entitled 'Public Sector Job Creation'. There is no indication as to whether he has in mind subsidies for the public sector operating *alongside* similar subsidies for the private sector, or whether he has in mind the *concentrating* of subsidies in the public sector or parts of it thus turning the latter into something similar to J.C.S.s as defined at the outset of this present paper. However, we shall assume he means the former to start with, and then the latter and demonstrate that his arguments are about equally invalid in both cases. His third section makes three points. The first is that some efforts to subsidise types of labour in surplus have failed because the subsidies have been diverted to the employment of normal labour. The answer to this is that numerous examples of the above type of subsidy have *succeeded* in their aim; in other words the fact that one or two attempts at administering something have involved incompetence does not prove that all present or future attempts will also involve incompetence. If of course there is some fundamental theoretical reason for thinking the above sort of subsidy can never be efficiently administered, then we need to be told what this is.

Point number two attacks the short term nature of the jobs created. The answer to this is given under 'criticism No 7' in the main text. Addison then points to the contrast between the relatively high skill content of public sector jobs vis-a-vis the relatively large amount of unskilled labour amongst the unemployed. The answer to this is that as long as the marginal product of unskilled labour with an employer is positive, there is scope for subsidising the labour into work with the employer. Indeed the logical extension of Addison's argument would seem to be that since the unemployed are *invariably* relatively unskilled compared to the employed workforce even in 1930s type depressions, unemployment can never be reduced even if it is at 1930s levels - a patent absurdity.

Under this third point Addison also claims that "As a general rule, although some managers in the public sector will have an incentive to produce efficiently, even here more factor inputs (workers) will be employed than are required on profit maximising grounds". The fallacy in this point is that it is a *general* weakness in the public sector, not a

weakness in employment subsidies or J.C.S.s as such. It is moreover not a very good argument against the public sector: the electorate in most countries is happy to see the public sector constitute up to half their economies despite being well aware of the above weakness.

Let us now assume that Addison has in mind *concentrating* employment subsidies in the public sector, that is that he has in mind something nearer J.C.S.s as defined near the outset of this present paper.

Point No 1. The answer is the same. One instance of administrative incompetence does not prove all other instances present or future are or will be incompetent.

Point No 2. Addison's criticism is valid here. In other words it is not desirable to concentrate short term jobs on one sector of the economy for reasons given in the main text.

Point No 3. Addison's points are again invalid for reasons given above.

Finally, lest the reader gets the impression that works by J T Addison are not worth reading, this is far from the case. The sole purpose of this appendix is to illustrate that criticisms of' J.C.S.s to date seem to be a long way short of competent for some strange reason. There is no question but that had Addison really tried, he has the ability to put some much better arguments than the above.

Apart from Addison's contribution to 'Job Creation - or Destruction?', there were four other contributors. None of the arguments they deploy exactly leave J.C.S.s reeling.

Another attack was made on J.C.S.s by Milton Friedman (1976). This simply made the claim that money spent on a J.C.S. is money not spent elsewhere, so jobs created by a J.C.S. are jobs destroyed elsewhere. This of course is an over-simplification. However the article concerned was in Newsweek, not a publication in which one would expect any economist to produce his most sophisticated arguments.

Appendix III: The flaw in traditional marginal employment subsidies.

Subsidies can be divided in to two types. First there are marginal subsidies which subsidise or aim to subsidise just the additional units produced as a result of the subsidy. Second there are what are sometimes called "intra-marginal" or "average" subsidies. The latter type of subsidy subsidises ***all*** members of the target group, e.g. all youths or every employee in the country or all cabbages.

Marginal subsidy proposals have been around for a long time and probably the most popular (which will be called a "traditional marginal subsidy" (TMS)) is the idea that each firm should be rewarded in proportion to the ***expansion*** in its workforce compared to some starting date.

With a view to illustrating the flaw in this idea, let us assume that people hired as a result of TMS are hired fairly quickly after its introduction, say within a month (and same goes for MES Workfare).

Ironically, there would be no difference between MES Workfare and TMS for the initial month or so. That is, employers would react (as pointed out above) by hiring whichever members of the dole queue they thought were most suitable. Let's say employers are induced to employ X% of the unemployed.

Put another way, any system which compensates employers for the unsuitability of this X% ***at any particular point in time*** will result in a reduction in the natural level of unemployment. But there is a problem. The actual set of people making up the two groups "perfectly employable and not requiring a subsidy" and "unsuitable and thus requiring a subsidy" are constantly changing. That is, employers constantly lose staff through retirement, voluntary quits and so on. And apart from that, employers' labour and skill requirements are constantly changing.

Thus a few months after TMS starts, employers will be looking for an assortment of different types of labour to replace those who have retired, quit or fallen ill (in exactly the same way as they were doing before the subsidy started).

But the big difference between the initial week or month of the subsidy and the situation a few months down the road is that in the former case the employees taken on were all relatively unsuitable, and employers were compensated for this unsuitability. In contrast, a few months down the road, employers do not just require relatively ***unsuitabl***e labour: they require ***all*** types of labour, including the highly skilled and the "very suitable" (who have retired, quit voluntarily, etc). And these latter types of labour just aren't there in the dole queue in sufficient numbers. (Remember the natural level of unemployment: there is a minimum feasible amount of unemployment for a given level of demand).

The latter point can be put another way. On implementing the subsidy, it is obvious to employers (and everyone else come to that) which employees are being subsidised. In contrast, a few months later, the subsidy simply becomes a monthly cheque that comes from government which is not obviously applicable to any particular set of employees.

Most importantly, the subsidy is not even necessarily applicable to the employees who were initially taken on as a result of the subsidy because not all of them will still be unsuitable. For example, some will have gained firm specific skills and will have become perfectly viable without the subsidy. In addition, most employer's labour requirements will have changed over the months, and some employees who were perfectly suited to their work are allocated to different jobs within their firm, jobs to which they are not so suited. Some of these latter employees in the absence of the subsidy and rise in demand would have lost their jobs and would have been available to help other employers fill vacancies. Unfortunately they are ***not*** available.

Conclusion: a few months after implementing TMS, its modus operandum evaporates.

Appendix IV. Fiat money and Chartalism.

This paper started by considering government as employer of last resort (ELR) and then argued towards something which is hopefully more sophisticated. It is thus of relevance to mention another theory in connection with ELR. This theory has a long history and is currently being promoted mainly by L.Randall Wray. References to the latter's publications will not be given because they are numerous, and these works are easily obtainable by entering relevant terms in a search engine (e.g. "Randall Wray", "fiat money" "employer of last resort"). Als o the works which criticise the "fiat money / Chartalism" idea are easily available this way.

The basic idea of Chartalism is that fiat money derives its value not so much from the factors set out in economics text books, but from the fact that governments are the issuers of the money, and secondly the fact that citizens need this money to pay taxes. The idea is normally illustrated by references to economies where some form of fairly dictatorial government issues money and demands taxes and can reap various advantages for itself from this arrangement.

These alleged characteristics of fiat money, so the argument goes, give government the ability to create large numbers of last resort public sector jobs. There are a huge number of weaknesses and flaws in this argument, as follows.

1. Clearly in dictatorial regimes a government which issues currency and collects tax can reap rewards for itself: such a government is simply exploiting monopoly powers. Such a government also has powers to set up ELR schemes and force or induce the unemployed to do this sort of work – powers not available in democracies.

However in democracies there are limits to the monopoly powers that governments can exploit. For example state schools and hospitals are effectively in competition with their private alternatives. If the former do not produce reasonable value for money, relative to the latter, the government gets booted out at the next election. Or citizens campaign for the removal of offending bureaucrats or politicians. (In the UK, state schools gain more "pupil qualifications" per £ than private sector schools. Thus state schools perform very satisfactorily on average. Private schools ARE higher standard, but this is only achieved by "throwing money at the problem.")

In short, governments in a democracy are little more than glorified conglomerates, which have to produce reasonable value for money. The fact that payment by citizens to governments is called "tax" is irrelevant. One could equally well call the payment that people make to other large conglomerates, e.g. supermarkets, a "tax".

2. In extremis, food and shelter takes priority over taxes. That is people are far more in "need" of money for the purpose of buying food and obtaining shelter than for the purposes of paying taxes. Indeed, people do not even need to go hungry before they start refusing to pay taxes. The refusal of large numbers of people in the UK to pay the "poll tax" in the 1980s was an example. Many of these people were not

desperate for food or shelter: doubtless half of them consumed beer and cigarettes, and owned cars.

3. While governments do have a monopoly on the issue of base money, this is near irrelevant: between around 2000 and the peak of the boom just before the credit crunch of 2008/9, commercial banks created so much money that the monetary base became almost irrelevant.

Another point which suggests that governments are of limited importance to the whole fiat money question is the fact that the UK was off the gold standard (i.e. it had a fiat currency) for longish periods between World War I and 1946 when the Bank of England was nationalised. I.e. the UK's fiat currency in this period was administered by a private bank, not by government.

Against that, it should be mentioned that a fiat currency, to a much greater extent than money which consists of a rare metal (or is backed by a rare metal) depends crucially on the rule of law. And it is governments which create and enforce laws.

Put another way, gold forms a good currency in a relatively lawless society where for example anyone with a printing press can print fiat currency, or open a bank and run it in a fraudulent manner. But while in practice every government plays a large role in organising its fiat currency, a system where government just framed and enforced the laws, but privately owned banks administered all aspects of the fiat currency would be perfectly feasible: approximately the arrangement in the UK between the two world wars as mentioned above.

4. The claim that control of the monetary base enables governments to set up ELR schemes is nonsense. As will be clear from the rest of this paper, there is no big budgetary problem in setting up ELR systems. This is first because in most developed countries the unemployed get some form of payment anyway: unemployment benefit. A public sector ELR system in which those concerned just received more or less what they would have received in benefits with no expenditure on skilled permanent employees to run the system, or materials or capital equipment would be highly inefficient. That is, additional sums would be needed to attract skilled permanent labour, materials, and capital equipment away from the existing economy. But this is not a big problem. The relevant sums can come from tax.

5. The whole "fiat money / ELR" idea seems to be getting nowhere. There do not seem to be any papers in leading economics journals on the subject.6. The claim that citizens need "the government's money" with which to pay taxes is certainly not true in the UK, which has a perfectly viable fiat currency. Citizens can pay taxes with anything they like: houses, lumps of gold or antique furniture. This method of paying taxes is extremely unusual because of the sheer inconvenience, but it happens from time to time. (The UK tax authorities fall over themselves to be flexible if it facilitates relieving citizens of their worldly wealth!)

The above "barter" point could be answered by saying that the tax authorities are bound to convert the above sort of physical commodities into fiat currency upon receiving them, and hence that the tax is

effectively being paid in the fiat currency. But this latter argument is invalid: the important point is that the tax liability is extinguished by giving the physical commodity to the tax authorities. Period. End of story.

Of course the tax authority will almost certainly convert the physical commodity into the fiat currency, but if the tax authority was operating in a country with some other form of currency it would do exactly the same: that is convert the physical commodity into the dominant currency in the country concerned. Thus this conversion has nothing to do with fiat money as such.

7. Any idea that because governments issue base money and collect tax that therefore they can print money willy nilly or let demand go through the roof so as to help them set up ELR systems is plain nonsense. Indeed, advocates of Cartalism seem to start their works with eloquent displays of concern about unemployed resources, labour in particular. They then tend to claim that Chartalism facilitates additional spending. However they are normally very quiet on why or to what extent the generally accepted sources in inflation (skilled labour shortages) have been moderated.

8. Chartalists often claim that it can bring price stability if the wage of ERL people is fixed, and all other prices are allowed to adjust themselves relative to this price. But it would be possible to do exactly the same with any other commodity. For example it would be possible to control inflation by concentrating solely on the price of cabbages. If the price of cabbages rose, demand could be curtailed or reduced until the price of cabbages declined to its target level. Exactly what is achieved by this strange form of inflation control is a mystery.

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Ralph S. Musgrave

This book consists of a series of working papers written by the author and published by the Munich Personal RePEc Archive between 2006 and 2011 inclusive. The extent to which the ideas in each paper have subsequently been revised or updated by the author in later publications varies from paper to paper. This is a rough guide to how much revision there has been.

Ch 1. Not revised in any subsequent publication.

Ch 2. The ideas here were subsequently set out in a paper entitled “An Employer of Last Resort Scheme which Resembles a Free Labour Market” published in the Journal of Economics and Political Economy. The basic ideas in the two works are not much different.

Ch 3. The author’s views on this topic have not changed much since publication, but there is a more up to date version of the author’s ideas in a paper entitled “The arguments for a permanent zero interest rate” published by Advances in Social Sciences Research Journal.

Ch 4. Not revised in any subsequent publication.

Ch 5. Not revised in any subsequent publication.

Ch 6. This deals with the same idea as Ch 2 above, and the same applies, namely that there is a subsequently published work in the Journal of Economics and Political Economy.

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