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ARE KEYNESIAN POLICIES PASSÉ ?

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Introduction

Significant levels of unemployment of labour and of capital equipment have been a persistent feature of market economies. Whilst the 1960s saw something approaching full employment in many industrialised economies, there has been a general tendency for unemployment to increase in the past two decades, with the prospect of substantial unemployment well into the next millenium. Unemployment in the OECD area totalled 30 million in early 1996, registering a slight fall on previous years. Within the European Community unemployment stood at around 11 per cent of the work force in early 1996. In the midst of these levels of unemployment, economic analysis is dominated by a paradigm which at best views unemployment as a consequence of market 'imperfections', and at worst denies the existence of unemployment. This paper starts from a rather different position. It takes as a 'stylised fact' that market economies suffer from extensive unemployment, and that full employment can only be created with the use of relevant economic policies. Amongst those relevant economic policies we would include those to secure the highest sustainable level of demand as well as those to enhance the workings of the supply side of the economy.

Keynesian macro-economic policies can be variously defined. In this paper, a narrow definition is adopted, namely the use of fiscal

and monetary policies in pursuit of high levels of economic activity (notably full employment) which may involve substantial budget deficits. Keynesian policies are broader than that, and specifically can involve the stimulation of investment through, for example, seeking to reduce uncertainty or to lower the cost of finance.

The three major objections which non Keynesians raise against the effectiveness of expansionary demand policies to secure full employment relate to the existence of a supply-side determined equilibrium level of employment or output (often summarised by the term NAIRU: non accelerating inflation rate of unemployment), to problems of funding of any resulting budget deficits, and the possible the reactions of financial markets. In the next three sections we address each of these objections.

It should be made clear that a high level of aggregate demand (however generated) is seen here as a *necessary but not sufficient* condition for the achievement of high levels of economic activity (including employment). We would argue that there are at least four other constraints on the achievement of full employment which would also need to be addressed.¹ First, it is possible (indeed for countries like the UK virtually certain) that the balance of trade position which would arise at full employment would be one of substantial deficit which may prove unsustainable.² Second, shortages of productive capacity may prevent the full employment of labour, and perhaps as a consequence expansions of aggregate

1 . For further discussion see Sawyer (1995a, 1995b)

2 . It is, of course, the case that if most or all countries were at full employment then whilst some would face a trade deficit others would not since the sum of balance of trade positions must be zero. Further, as discussed in the context of budget deficits, a trade deficit may be sustainable (in the sense of maintaining a constant relationship to GDP) provided that the rate of growth exceeds the rate of interest on foreign borrowing (see Sawyer, 1995a).

demand would tend to be inflationary. Third, a move towards full employment is likely to involve some inflationary pressures, and a fear of inflation may cut short any expansion through political and other pressures to deflate the economy. Fourth, sustained full employment may have adverse effects on productivity in economies which rely upon competition and the threat of unemployment to underpin work effort.³ Thus we would see Keynesian macroeconomic policies as only one element amongst many which would be required for the achievement of full employment, and that such policies would have to be complemented by ones to strengthen the supply-side of the economy, ensure sufficient capacity and to limit inflationary tendencies.

NAIRU AS A CONSTRAINT ON KEYNESIAN POLICIES

The NAIRU concept generally implies three related conclusions. It is, first, a supply-side equilibrium position which, as the title suggests, involves non-accelerating inflation with accelerating inflation arising from lower levels of unemployment. Second, the NAIRU supports a classical dichotomy whereby the level of output is set by supply-side considerations alone, leaving demand-side considerations to set the level of prices. Third, there is the strong suggestion that the equilibrium position is unique : the term itself refers to a single rate of unemployment (and this is more clear cut with the related concept of the natural rate of unemployment).

³ . "... the *maintenance* of full employment would cause social and political changes which would give a new impetus to the opposition of the business leaders. Indeed, under a regime of permanent full employment, 'the sack' would cease to play its role as a disciplinary measure. The social position of the boss would be undermined and the self assurance and class consciousness of the working class would grow" (Kalecki, 1971: originally published 1943).

The unique equilibrium and the complete separation of the supply and demand sides are *not* an inevitable feature of the type of models from which the NAIRU is generated. Manning (1992), for example, provides a model of price and wage setting which has two equilibrium positions for which he provides some empirical support. Sawyer (1982) provides a model which involves not only multiple equilibria but also without a clear separation between demand and supply sides. However, these models are very much in the minority, and we would argue the popular representation does involve unique equilibrium and the separation of the demand and supply side considerations. It is, of course, the case that if indeed the economy is characterised by either multiple equilibria or the influence of aggregate demand on the level of economic activity then a role for Keynesian style demand management policies reemerges.

The NAIRU is clearly a construct of economic theorising which may (or may not) be helpful in thinking about the economy. But there is no way in which it can be demonstrated to actually exist in the real world and hence using estimates of the NAIRU involves a leap of faith in the existence of some (unique) NAIRU. Estimates of the NAIRU are typically derived from price and wage setting equations, and the theoretical construct is imposed on the estimation of those equations. In some respects it is the economists' equivalent of the astronomers' black hole: the concept may be useful for thinking about the world but there is no direct evidence for its existence. The concept only 'works' if observations about the real world are consistent with predictions derived from a theory which makes significant use of the concept. It can be further observed that the price and wage relationships which interact to determine the NAIRU have often proved unstable and subject to shifts, which makes any estimate of the NAIRU also unstable. It is argued here that the estimates of the NAIRU (or related concepts) which have been produced have shown a strong tendency to move in sympathy with actual levels of unemployment (cf. Worswick,

1985). Further the estimates are sensitive to the precise form of equations estimated. Both of these features, which are now illustrated, must cast severe doubt on the existence of any unique and stable NAIRU.

Nickell (1990) estimates the equilibrium rate of unemployment (equivalent to the NAIRU) in the UK as having risen as follows (with actual rates of unemployment given in parenthesis):

1956-59 : 2.2 per cent (2.24 per cent) 1960-68: 2.5 per cent (2.62 per cent) 1969-73: 3.6 per cent (3.39 per cent) 1974-80: 7.3 per cent (5.23 per cent) 1981-87 : 8.7 per cent (11.11 per cent) 1988-90: 8.7 per cent (7.27 per cent).

Layard, Nickell and Jackman (1991) p.436 report actual and equilibrium unemployment for 19 countries for each of three decades and an essentially similar pattern is provided, namely the two types of unemployment move together. Lombard (1995) reports three estimates for the NAIRU in France for the early 1980s (when actual unemployment rate averaged 8.3 per cent) of 9.0 per cent, 7.7 per cent and 6.9 per cent which suggest a high level of NAIRU and some sensitivity to methods of estimation. Some further estimates covering a wide range of countries is given OECD (1994), p.22 and a similar picture is given in figures reported in ECE (1992) Table 5.7 (and summarised in UNCTAD, 1995, p.170).

Some further estimates covering a wide range of countries is given in Table 1, where the NAWRU is the non-accelerating wage inflation rate of unemployment which is clearly closely related to the NAIRU. The tendency of the NAWRU to mimic the actual level of unemployment over time is clear from that table. A similar picture is given in figures reported in ECE (1992) Table 5.7 (and summarised in UNCTAD, 1995, p.170).

Table 1 : Unemployment rates and NAWRU averages

	1970-79	1980-89	1990-93	1994
Non-European countries				
-unemployment rates	4.6	5.9	5.6	5.7
- NAWRU	4.8	5.8	5.4	5.5
Four major European countries				
- unemployment rates	4.3	8.7	8.8	10.2
- NAWRU	4.3	8.4	9.0	9.4
Small EC countries				
- unemployment rates	4.7	13.4	12.9	16.7
- NAWRU	4.6	12.5	14.1	15.0
Other European countries				
- unemployment rates	1.3	2.1	3.8	5.8
- NAWRU	1.3	2.1	3.5	5.1

Source: OECD (1994), p.22

Note: NAWRU is non-accelerating wage inflation rate of unemployment

Setterfield, Gordon and Osberg (1992) 'suggest that estimates of the NAIRU [for Canada] are extremely sensitive to model specification, the definition of variables and the sample period used. [Further] ... the final range of all NAIRU estimates ... is about 5.5 percentage points. Indeed, the size of this range is so great that it covers virtually the entire range of male unemployment rates in Canada since 1956' (p134). The Directorate-General for Economic and Financial Affairs of the European Commission concluded that the concept of the NAIRU is 'unusable operationally' because 'empirical studies on both sides of the Atlantic have shown that large variations in NAIRU may be caused by apparently small differences in sample, retained explanatory variables and analytical formulation. Furthermore, the confidence interval around these estimates is so large that it generally contains the whole historical range of unemployment rates observed in the last 15 to 20 years'.⁴ But as UNCTAD (1995) (p.172) observes 'natural rate estimates are still used to assess and guide macroeconomic policy, thereby contributing to rising unemployment'. Theoretical constructs in economics are unlikely to be neutral in their policy implications or more generally in guiding the way in which economists think about policy issues. As Isaac (1994) notes the natural rate doctrine (a term which he unfortunately uses to include the NAIRU) is seen "as inhibiting the conduct of sensible macroeconomic policy: belief in a natural rate encourages resignation in the face of persistent high unemployment" (see also Isaac, 1993).

The NAIRU is an estimate of the level of unemployment at which inflation would not accelerate; this can be alternatively expressed as saying it is the level of unemployment at which the rate of change of wages minus the rate of increase of prices is

⁴ . Quote is from *European Economy*, Supplement A, January 1995, p.2 as reported in UNCTAD (1995) p.172

equal to the rate of increase of (labour) productivity⁵ for otherwise inflation will be tending to accelerate or decelerate. This would mean that real wages rise in line with labour productivity, and hence the distribution of income between wages and profits remains unchanged. It is well-known that the share of wages in national income is fairly stable even if it is not the constant which was sometimes claimed. It is perhaps not surprising if a level of unemployment can be found for which the distribution of income would remain unchanged (and in this model, inflation be non-accelerating) it will lie in the middle of the range of unemployment observed. The calculation of a NAIRU may then merely reflect that the distribution of income is fairly stable (and specifically the shares of wages and of profits do not exhibit any strong trend), rather than confirming the existence of a NAIRU as portrayed in the underlying theory.

The NAIRU has generally calculated from a set of equations in which the level of unemployment influences wage inflation, the level of output or capacity utilisation influences price inflation and in which there is a close link between employment, unemployment and output or capacity utilisation. What appear to be relatively minor adjustments to those equations can have significant consequences. If (and there is considerable empirical support for this view) the unemployment variable which is relevant for wage inflation is not the percentage unemployed but rather the current unemployment rate (U) relative to its recent level (U^*) (or the change in unemployment) then there are a range of 'equilibrium' unemployment rates, and "the one we actually observe depends on history and not only on structural characteristics of the labor market" (Solow, 1990, p. 59). This perspective means that lowering unemployment (i.e. U/U^* less than unity) increases the rate of inflation, and even when unemployment stops falling a higher rate

⁵ . It would also be necessary to make some assumptions about the rate of change of foreign prices, the exchange rate and indirect taxation.

of inflation may have become embedded into the economic system. But even if that is so, then a lower level of unemployment would involve higher, but not accelerating, inflation : there is a sense in which the trade-off between unemployment and inflation is apparently restored. This approach would suggest that any level of unemployment can be attained with a non-accelerating rate of inflation (though lower unemployment is associated with higher inflation). As Solow points out, this may not be the case at the extremes (e.g. at zero unemployment) but may nevertheless be the case over a significant range. This perspective also suggests the need for some policy which will reduce inflation without unemployment rising, for otherwise given where most economies are now starting from, lower unemployment will involve higher levels of inflation.

Capacity is surely influenced by the pace of investment, and higher levels of capacity permit higher levels of employment and generally higher levels of productivity (for a given level of capacity utilisation). We would generally expect higher levels of capacity to permit higher levels of employment and hence lower levels of unemployment.

Thus we could conclude that the NAIRU itself does not constitute a barrier to the achievement of full employment since there is little evidence for its existence, though the concept of NAIRU may constitute a barrier by appearing to rule out demand stimulus and other measures to reach full employment.

BUDGET DEFICITS

Keynesian demand management is often associated with the use of fiscal policy to guide aggregate demand and in particular the use of budget deficits to sustain aggregate demand. But the purpose of this paper is to consider the limits on the use of budget deficits for the creation of sufficient aggregate demand to underpin full employment. We observe that even with significant levels of

unemployment most Western governments are running budget deficits though in many cases the deficit can be attributed to a combination of interest payments on government debt and capital expenditure. From this we would infer that it is likely that full employment would involve a substantial budget deficit in most industrialised countries.

There are two possible (though to some degree related) limits on the ability of governments to run a budget deficit sufficient to underpin full employment. The first arises from the argument that continuing budget deficits are unsustainable, and the second from the reaction of the financial markets. A budget deficit may be seen as unsustainable in a variety of ways but we would suggest two are significant here: namely a budget deficit would be seen as unsustainable if it lead to a spiralling national debt to GDP ratio (and hence to rising interest payments on the debt relative to GDP) or that the level of interest payments whilst not rising (relative to GDP) may nevertheless constitute what is seen as too heavy a burden on taxpayers (through adverse incentives from the tax rates and from the general transfer from the relatively poor to the relatively rich which the interest payments on national debt often represent).

The algebra relating to the budget deficit can be readily laid out. Define D as the outstanding public debt, B the primary budget deficit (that is excluding interest payments on debt and taxation paid on any such interest payments), g the growth rate of the economy and r the (post tax) rate of interest, then it is well-known that the debt to GDP ratio will not rise provided that $(g-r).D = B$ (which can also be written as $g.D = r.D + B$) (with the primary deficit to GDP ratio being held constant). Any size of primary deficit (relative to GDP) will not lead to the over-all deficit rising (relative to GDP) provided that the growth rate exceeds the post tax rate of interest (either both expressed in nominal terms or in

real terms).⁶ The difficulty for budget deficits which has arisen in recent years is simply that real rates of interest have been at historically unprecedentedly high levels whilst economic growth has been sluggish.⁷ We would attribute these higher interest rates to the pursuit of tight monetary policies in the belief that tight money and high interest rates will (eventually) dampen down inflation (see discussion below on crowding out).

There is a clear conflict of view here between the prevailing orthodoxy which would view the interest rate as set by loanable funds considerations, and the post Keynesian perception that interest rates are set by liquidity considerations. In the former case, a budget deficit is seen to raise interest rates through adding to the demand for loanable funds, whereas in the latter case, (attempted) monetary constraint raises interest rates which makes budget deficits less manageable.

In so far as government, like individuals, face the 'principle of increasing risk' (Kalecki, 1937) then higher deficits (relative to GDP) would entail higher interest rates: if we knew the relationship between the interest rate which had to be paid by government and the size of its budget deficit we could calculate the nature of the barrier presented by the condition $g - r \geq 0$. Since if $(g - r)$ is positive is likely to be rather small, i.e. of the order of 0.01 or 0.02, the debt to GDP ratio will stabilise at a large multiple of the

6 . Pasinetti (1996) also discusses the conditions for a sustainable budget deficit.

7 . "Since modern capital markets came into existence, there have never been such high long-term rates as we recently have had all over the world" (Homer and Sylla, 1983, p.1 quoted in Pasinetti, 1996). The recent high levels of real interest rates are indicated by the estimates of Tease, Dean, Elmeskov and Hoeller (1991). They estimate the long-term real rate of interest for the UK as 2.86 per cent in the 1960s, -1.34 per cent in the 1970s and 5.00 per cent in the 1980s: corresponding figures for France were 1.72 per cent, -3.79 per cent and 4.07 per cent; for Germany 3.85 per cent, 3.16 per cent and 5.00 per cent and for the United States 2.60 per cent, 1.31 per cent and 6.20 per cent.

primary budget deficit to GDP ratio (clearly with numbers given previously at multiples of 100 or 50). But perhaps more significantly, the interest payments would stabilise at $(r/g - r) B/Y$. This would mean that the over-all budget deficit (including interest payments) would be much larger than the primary deficit and that those payments would appear to constitute a large transfer of income to the holders of government debt. The transfer may be an apparent one in so far as the financing of those interest payments comes from further borrowing and in that way it is a transfer within the rentier class. Further, it should be noted that the government is in effect permitting the savings to occur by running a deficit and absorbing those savings. If investment were higher, thereby reducing the need for public expenditure, savings would again occur and profits flow to the wealthy. If the rate of interest on government bonds is lower than the rate of profit, then the income distribution with a substantial budget deficit may not be more unequal than the income distribution with higher investment but a lower budget deficit.⁸ It can also be noted that a high proportion of the government bonds may be held by pension funds etc.. For the UK, life assurance and pension funds held £133 billion of British government securities and Treasury Bills (as at March 1996) out of a total £262 billion, compared with financial liabilities of £400 billion and net liabilities of £250 billion. With debt interest payments by general government of nearly £26 billion in 1995/96, we could hazard a guess that £11 to £12 billion was being paid out to life assurance and pension funds. (As an aside it can be noted, at least for the UK, that the budget deficit and the resulting interest payments are acting as a set of pension arrangements. In 1995, contributions to pension funds and life assurance companies were

⁸ . It being assumed that property income is more unequally distributed than labour income, and such that the distribution of property income reinforces the inequality of the distribution of labour income. The comparison being made here is for an equivalent level of savings and income.

over £33 billions of which nearly £18 billions were lent to the government to finance the budget deficit; on the other side, interest payments of £11 to 12 billions can be compared with nearly £66 billions paid out as pensions and life assurance benefits and contributions of £31 billion and life assurance premiums of some £36 billion.

What then should be the rule for public finance and for any government deficit ? It is widely recognised that the deficit will fluctuate over the course of the business cycle, and we will accept that view and focus our discussion on the average deficit position. We would start from the position that public expenditure should be undertaken for its social value, and that taxation be used to raise finance for that expenditure and that the structure of taxation should reflect some egalitarian principles. The precise structure as well as the volume of public expenditure and taxation will have aggregate demand implications, but we take those as given. We adopt the old fashioned Keynesian perspective that the balance between expenditure and taxation (i.e. the deficit) should be struck to provide the highest level of aggregate demand consistent with constraints on the economy. Those constraints would include balance of trade, inflationary pressures, capacity and availability of labour. Although there are cases to the contrary, we take the view that a budget deficit should be run by government only because there is a surplus of net private savings. Thus we do not view a budget deficit as a 'good thing' *per se* but rather as arising to mop up the net private savings.

A number of distinct cases then arise:

(i) a relatively small deficit (or a surplus) arise, and the rate of growth is greater than the post-tax real rate of interest. In this case, the debt to income ratio will stabilise (at $(1/g)$ times the total deficit equivalent to $(1/g-r)$ times the primary deficit). Interest payments relative to national income will stabilise at (r/g) times the deficit to income ratio or $(r/g-r)$ times the primary deficit to income

ratio respectively. In either case, interest payments are only a proportion of the total deficit (since r/g is less than unity). The debt to income ratio may also be deemed relatively small.

(ii) a relatively large deficit arises and/or the difference between the rate of interest and the growth of growth is rather small, which has the effect that the 'equilibrium' debt to income ratio would be rather high and the corresponding interest payment to income ratio also rather high.

What do we mean by high or low in this context? There is little economic analysis which helps here, and we would hazard a guess that when the interest payments to income ratio exceeds 10 per cent, political pressures build up to reduce the budget deficit and the national debt. (In this regard, the interest to income ratio is like the rate of inflation in the sense that economists have found it difficult to produce convincing costs of the interest to income ratio as of inflation but the public perception is that they do involve substantial costs, and politicians appear to be willing to incur significant costs to reduce them). We would also guess that interest payments relative to national income are more significant than the debt to income ratio (for example the UK had a debt to income ratio of over 300 per cent after World War 2 without it appearing to cause any political or economic difficulty, perhaps because interest rates were low).

It appears that a substantial part of taxation is going to finance interest payments, though this would not actually be the case where the primary deficit is held constant for then in effect interest payments are met by further borrowing. Then, by definition tax rates are held constant and there is no rise in taxation to fund the deficit.

(iii) the rate of interest is greater than or equal to the rate of growth. This may well be the present position for a number of countries including the UK. For that country if we take the underlying rate of growth of GDP at $2\frac{3}{4}$ per cent (the figure

used by government in its public expenditure projections, which is rather optimistic in light of growth since 1980), then for interest rates (on government securities) around 8 per cent nominal, inflation around 3 per cent, and assuming an effective tax rate on interest of around 25 per cent then the relevant post-tax real interest rate would be around 3 per cent. The precise figures are a matter of debate, but these order of magnitudes suggest that the stability condition that the rate of growth exceeds the post-tax real rate of interest is not readily met. Assuming that this is to be the prevailing 'norm' (cf. figures from the 1980s), then any deficit will grow (as interest payment mount) as will the national debt to income ratio. Whilst the time period over which the deficit and debt/income ratio can grow without causing major difficulties may be quite substantial (i.e. if the deficit is initially relatively small and/or the difference between the growth rate and the interest rate is small), nevertheless the difficulties will come sooner or later.

In this case, there are two relevant policy responses. The first is to seek to reduce interest rates (and it could be added raise the growth rate but that is obviously more easily said than done). If high interest rates are viewed (in part) to be a consequence of the pursuit of tight monetary policies, then this constitutes an additional reason for lowering interest rates. However, we have to also recognise that international financial markets place severe limitations on the ability of national governments to vary domestic interest rates out of line with prevailing interest rates elsewhere (though paradoxically low domestic interest rates would be associated with an expected appreciation of the currency).

The second response comes clearly from the reason why the need for a deficit arose in the first place. Note that the deficit was seeking to raise aggregate demand : another way of putting the same point is to say that private aggregate demand was insufficient. The appropriate response is then to seek ways of reducing private savings and/or raising private investment (more accurately profit generating investment). The national accounts identity would provide

$S = I + (G - T) + (X - M)$, where S is savings, I investment, G government expenditure (in total), T taxation, X exports and M imports. Applying the identity at full employment makes the obvious point that a budget deficit corresponds to some combination of excess of private savings over investment and foreign trade deficit. Insofar as the budget deficit is in effect mopping up the excess of private savings over investment, then the Keynesian alternative to running a deficit would be the stimulus of investment and the discouragement of savings. But the Keynesian position is clear: budget deficits are the counterpart of net private savings. If it is considered politically or otherwise infeasible to run budget deficits, action should be taken on (i.e. reduce) net private savings. This recalls some arguments of Kalecki and Keynes. Kalecki (1944) saw limits to the stimulation of private investment (essentially that such stimulation would lead to rising capital-output ratio and declining profit rate), and advocated deficit spending by government and a redistribution of income from higher to lower income groups to stimulate consumption. Keynes foresaw a time “when investment demand is so far saturated that it cannot be brought up to the indicated level of savings without embarking upon wasteful and unnecessary enterprises”, and at such a time “[i]t becomes necessary to encourage wise consumption and discourage saving,—and to absorb some part of the unwanted surplus by increase leisure, more holidays (which are a wonderfully good way of getting rid of money) and shorter hours” (Keynes, 1980, p. 321 and p. 323). See also Arestis (1996) for further discussion of this idea.

Thus we are advocating that governments only run deficits when it is necessary to do so for aggregate demand reasons. Hence, if a deficit is unsustainable, then other means to sustain aggregate demand have to be found.

CROWDING OUT

It is possible that interest rates (particularly on bonds) rise with a budget deficit thereby limiting the government's ability to borrow. This is clearly a possibility with the government faced, like any other borrower, with a rising cost of borrowing (as noted above). It can here first be noted that in the international financial markets any government is still a relatively small borrower. Thus the bidding up of price against oneself, which can arise when there is a dominant buyer, may not arise here. But the operation of the 'principle of increasing risk' may still arise. It could be argued that the high interest rates arose from high levels of government borrowing. But the evidence linking budget deficits and interest rates is weak. For example, in a paper which is generally hostile to Keynesian macroeconomic policies (in effect answering no to the question posed in the title of their paper), Cunningham and Vilasuso (1994/95) have to concede that "[u]nfortunately, empirical studies examining the relationship between interest rates and fiscal deficits are far from conclusive" (p.190) and that "whether fiscal deficits are associated with higher interest rates has yet to be resolved in the economics literature" (p.191). And in a similar vein, "[t]he lacking of supporting empirical evidence linking interest rates to budget deficits is troublesome" (Wyplosz, 1991). Further, "the empirical results on interest rates support the Ricardian view [that there is no effect on budget deficits on real interest rates]. Given these findings it is remarkable that most macroeconomists remain confident that budget deficits raise interest rates." (Barro, 1989, p.48). Whilst Barro has approached the matter from a rather different theoretical perspective, these results support our more Keynesian perspective that one of the supposed crowding-out routes, namely that budget deficits raise interest rates and thereby depress private investment, is not empirically supported. "In addition the government aims to minimise the volume of public-sector borrowing in financial markets. The main reason is presumably that debt service will require taxes to be levied (sometime) in the future. At

any rate there is no evidence to justify the other possible reason, namely that borrowing by the UK government in recent decades has in significant measure crowded out UK private borrowers from credit markets. Charts 1 and 2 reveal no positive correlation between the level of either government debt or borrowing and long-term interest rates. The latter were particularly high between 1982 and 1989 when both the former were exceptionally low." (Fleming and Oppenheimer, 1996, p. 60). These quotes are indicative of a general conclusion that budget deficits do not raise interest rates.

But we can also find support for the Keynesian presumption that budget deficits will stimulate output. For example, "[b]udget deficits have not only been related positively to growth of GNP as a whole, but also to growth of its components of both consumption and investment. ...[E]ach percentage point of real high-employment deficit was associated with growth of consumption the next years amounting to 0.642 percentage points of consumption. It was also associated with growth in gross private domestic investment equal to 1.383 percentage points of GNP. The evidence is this that deficits have not crowded out investment. There has rather been "crowding in" (Eisner, 1989, p. 83). Another example comes from the United Kingdom where it was found during the 1980s "that fiscal policy had an independent and important existence in that period and is very likely to have had a more powerful impact than did monetary policy. Our investment of the [macroeconomic] models shows that even in those models run by modellers sympathetic in their theoretical stance to the notion of crowding out, government expenditure multipliers remain positive and comparatively strong." (Arestis and Bain, 1994, p.227)

FINANCIAL MARKETS

The financial markets are often viewed as placing limits on the use of fiscal policy (notably budget deficits). Adverse reactions (or the threat of such) by the foreign exchange markets to particular policies leading to a fall in the value of the currency, and higher domestic interest rates, are often viewed as placing limits on policy. In this section we briefly explore how much of a constraint the financial markets impose.

The distinction, utilised by Sayer (1992) in his discussion of the power of the City of London, as to "whether market prices are based on economic fundamentals or bubbles, fads and herd behaviour" is useful here. Clearly, if it is the former then the financial markets may perform a useful service by providing early signals that an economic policy is unsustainable in the longer term. As Sayer (1992) argues fundamentally unsustainable "policy strategies include those that give rise to accelerating inflation, a worsening balance of trade or rapidly growing public sector deficit. Sooner or later such policy strategies would have to be abandoned in response to underlying fundamental constraints such as the disruption caused by hyperinflation, balance of payments constraints and the 'fiscal crisis of the state'" (p. 141).⁹ In such a case, the financial markets do not pose any threat to the range of policies (Keynesian or otherwise) which we would wish to advocate (but no-one is going to admit to advocating unsustainable policies).

However, even when financial asset prices reflect fundamentals, the operation of financial markets may still pose a constraint on the economic policies pursued. The 'fundamentals' of interest to the financial markets may be quite different from the 'fundamentals' of

⁹ . A further difficulty arises here: namely any fiscal expansion of the economy is likely to involve some elements of rising inflation, worsening balance of trade and growing budget deficit. The advocates of fiscal expansion would argue that such effects may be short-lived or 'a price worth paying' and do not lead to hyperinflation etc..

concern to others: for example, the financial markets may focus more on the rate of inflation whilst others may feel that unemployment is of more importance. Market participants will be concerned over the rate of inflation (in foreign exchange markets specifically expectations on the differential inflation rates between countries, in domestic financial markets expectations over domestic inflation relative to the nominal rate of interest). Inflation affects the returns which participants in financial markets receive. Unemployment and the level of economic activity are of no immediate concern to operators in financial markets since they do not directly effect the financial returns in the way in which inflation does (and indeed if some form of Phillips' curve analysis is accepted, reductions in unemployment, which are associated with higher inflation, are unwelcome to financial markets). In addition the implicit economic model to which the financial markets adhere may be quite different from the economic model which underlies a government's policies and both may be quite different from reality. It is clearly quite possible that a policy may be seen as sustainable and desirable when judged against one economic model but not against another.

The use of the term 'fundamentals' carries, we would suggest, two implicit suggestions. First, the fundamentals give rise to a unique set of (equilibrium) prices whereas there are theoretical reasons for thinking that there may be multiple equilibria.¹⁰ If there were to be multiple equilibria, then the expectations of the financial markets may be an important element in which equilibrium is selected even though the chosen equilibrium may not be the socially preferred one. Second, the term suggests a separation between the real side of the economy ('the fundamentals') and the financial side akin to the classical dichotomy. In contrast, our view

¹⁰ . The reasons are, in general, theoretical ones (rather than empirical ones) since the conditions for equilibria (unique or multiple) are properties of particular theoretical models.

would be that of mutual interdependence. Specifically, we would view the influence of financial sector through interests rates and willingness to grant credit as constraining the development of the real sector. Clearly, if the fad raises interest rates, investment may be thereby effected and hence the fundamentals of the economy changed. Similarly, a falling exchange rate would stimulate domestic inflation which would change the fundamental value of the (nominal) exchange rate.

The financial markets pose a different type of constraint on the pursuit of sustainable fiscal policies when the “bubbles, fads and herd behaviour” come to determine movements in prices (notably interest rates and exchange rates). There is now an extensive literature which indicates that financial market prices are ‘excessively volatile’ (and casual observation of the movements in the exchange rates in the past twenty would be supportive of that view).¹¹ Further, there are theoretical literatures (surveyed by, for example, Camerer, 1989) which show that individual rational behaviour can generate ‘bubbles’. In a world of uncertainty where knowledge of the economic fundamentals is given to few it is perhaps inevitable that asset prices will fluctuate and follow fads and fashions. The significant question here is whether the adoption of say a Keynesian demand reflation (especially if pursued by a left-of-centre government) would set off adverse reactions in the financial markets. These reactions may be individually rational in the sense that if each (or most) individuals believe that others believe that such a reflection would be harmful and mark down prices then doing so themselves is rational. There is no need to evoke conspiracy theories but rather that if there are sufficient perceptions that others think that some policy or event will lead to a deterioration in ‘fundamentals’, whether or not it would actually do so. Expectations

¹¹ . The work of Shiller (e.g. Shiller, 1981; 1984; 1990, and the paper collected together in Shiller, 1989) has strongly suggested that there is excessive volatility in the stock and bond markets.

and beliefs are important driving forces behind price movements in financial markets, and expectations have a self-fulfilling element to them. Expectations that the price of a particular currency is going to fall set up forces which lead to a fall in that currency's price.

The history of sterling in recent years and specifically its membership of and then departure from the Exchange rate Mechanism (ERM) is instructive. It could be argued that the departure of sterling from the ERM and the associated fall in value from circa DM2.80 (in August 1992) to circa DM 2.40 (by end of 1992) reflected the correction by financial markets of attempts by governments to impose an exchange rate which did not reflect 'fundamentals'.^{12, 13} However, this would raise the question as to why the market-determined value of sterling had been DM3.00 prior to sterling's entry into the ERM, a value which effectively determined the entry value of sterling into the ERM. Further, there is the question as to why the financial markets took two years before asserting 'fundamentals'.

If, as we would argue is the case, financial markets behave closer to the 'bubbles' representation than the 'fundamentals', then financial asset prices are essentially unpredictable, and further the way in which markets react to particular information or policies may also be unpredictable. This has two implications for our line of argument. First, it enables those opposed to a particular policy to pontificate that if that policy is followed the financial markets will

12 . I argued in the period 1990 to 1992 that sterling was over-valued, using the criteria for the right value related to the figure which would provide a trade balance (even at the then prevailing high levels of unemployment): my preference would be for a value which was consistent with trade balance at full employment.

13 . The use of the term 'fundamentals' here begs the question of what is the 'fundamental' value: it could refer to, for example, the exchange rate which would bring purchasing power parity or that which would be consistent with trade balance. In the early 1990s on the first criteria sterling was probably undervalued whilst overvalued on the second.

react in an adverse manner. A recent notable example of this arose in the dispute between the Chancellor of the Exchequer and the Governor of the Bank of England in May 1995 over interest rate changes. The Governor argued that the financial markets would react adversely if interest rates did not rise: rates were held constant and nothing happened. Second, significant changes in asset prices (and here of particular concern in interest rates and exchange rates) occur for essentially random reasons, and any government whatever policies it pursues faces the prospect of a 'run on the pound'. For example, Coakley and Harris, (1983 p.193) report a fall in value of £ against \$ of 5.6 per cent in a fortnight in November 1982 despite the monetarist policies being pursued by the Thatcher government. The sterling crisis of 1976 which led to the IMF visit to UK and imposition of conditions on public expenditure is a further example of an exchange rate crisis which owed more to 'fads and bubbles' than to 'fundamentals'. For "there is also evidence to support the view that the convulsion in the foreign exchange market [during 1976] was in part a 'confidence crisis' unrelated to the 'fundamentals'. For, indeed, all the obvious fundamentals – the inflation rate, the money supply, the current account – were moving in a favourable direction at the time and there were the additional factors that by 1976 the prospective value of North Sea oil to the exchanges was understood and the government's hand had been strengthened politically by the results of the Common Market entry referendum." (Artis and Cobham, 1991, p.271)

This brief discussion would suggest that the financial markets pose constraints for the pursuit of macroeconomic policies in two ways. First, policies which are sustainable and/or desirable from the perspective of a government may not be from the perspective of the financial markets. In that context, financial markets may react adversely to policies which might otherwise be successful. Second, the financial markets may be influenced by fads and bubbles, and a movement in the exchange rate can be set off by what are

effectively random factors. This in itself may not act as a constraint on policy, but rather that governments feel obliged to respond to such movements in the exchange rate.

CONCLUSIONS

We have sought to argue in this paper that a supply-side determined NAIRU should not be accepted as a long term constraint on the achievement of full employment, though higher rates of inflation may be a price to be paid for a move back to full employment. We have also argued that budget deficits may have to be incurred to attain full employment, but that budget deficits would not be sustainable in the face of post tax real interest rates which exceed the rate of growth. Policy measures would then have to focus on reducing interest rates and/or stimulating investment and depressing savings. We have also discussed some of the ways in which the financial markets may place limitations on fiscal policy.

In the absence of Say's Law, adequate aggregate demand to underpin full employment is not assured, and government action to secure it is required. But there are many other constraints on the achievement of full employment which also have to be addressed. Specifically, the reactions of the financial markets may impose a significant constraint on the pursuit of reflationary macroeconomic policies.

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