Income Distribution, Macroeconomic Analysis and
Barriers to Full Employment

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Working Paper No. 211

November 1997

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Introduction

Discussion of the distribution of income is noticeable by its absence from most mainstream macroeconomic analysis, though it does, of course, make an appearance in post Keyensian economics, particularly as derived from the work of Kalecki. This lack of attention to the distribution of income could to some degree be explained by the focus of macroeconomics on aggregates, combined with the belief that the disaggregation of income into, for example, wages and profits was uninteresting. This argument was never a strong one, and since macroeconomic analysis, following Keynes, emphasised the role of investment as a component of aggregate demand, and two key attributes of investment expenditure can readily be seen to be the role of profits (as a source of finance and as an indicator of future profitability) and its links between the present and an uncertain future. The trend over the past 15 or so years to explore the microeconomic foundations of macroeconomics, and the general reduction of macroeconomics to a summation of micro economics have severely weakened the argument but has not lead to any significant rise in interest in distribution of income.

In this paper, we are concerned with three sets of arguments concerning the relationship between macroeconomics and the distribution of income. In the first main section we argue that in so far as the NAIRU (non accelerating inflation rate of unemployment) is seen as a barrier to the achievement of full employment, it should be viewed as one arising from conflicts over the distribution of income. In the second main section, we discuss the question of the relationship between the distribution of income and the level of aggregate demand. Specifically, we briefly examine how changes in the distribution of income have impacted on the levels of economic activity and of unemployment over the past 15 years or so. In the third section we offer some remarks on monetary policy and the

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distribution of income.

The NAIRU and the distribution of income

The concept of a NAIRU has been a particularly influential one both in the teaching and practice of economic analysis and in the policy arena. [1] It is a supply-side determined, generally unique, equilibrium level of unemployment which is unaffected by aggregate demand and which embodies the classical dichotomy where by nominal variables are determined by monetary factors and real variables by real factors. Although the NAIRU was developed in the context of the analysis of inflation, it says nothing about the actual rate of inflation.

A significant aspect of the typical approach of economists to (anticipated) inflation is that inflation *per se* does not affect relative prices, and hence would not affect the distribution of income. It would further follow that policies designed to reduce the rate of inflation, notably in the past two decades, monetary policy, would be distribution-neutral.[2] This point would be reinforced when a reduction in the growth of the money supply was an announced and credible policy for then the economy was predicted to move quickly to a lower rate of inflation with the level and composition of economic activity unaffected. It is not surprising that conventional approach does not incorporate any interrelationship between inflation and income distribution. Simply, the source of inflation is viewed as monetary, yet money operates as a veil, leaving relative prices unchanged. In contrast, when inflation is viewed as being non-monetary in origin (even though expansion of the money stock is required to permit any substantial inflation to continue, but this occurs through the credit creation process), then the originating cause and the propagating mechanisms of the inflation are likely to have significant effects on the distribution of income. But, further, as will be briefly indicated below, varying the growth of the money supply (including the effects of the use of interest rates to influence that growth), will have its own distributional effects.

There are good reasons to distinguish the NAIRU from the 'natural rate of unemployment' (hereafter NRU) (Friedman, 1968). The NRU also satisfies the condition that inflation is non-accelerating, but it essentially involves full employment (after allowance for frictional unemployment). Within the

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context of atomistic competition, the NRU should be seen as the renaming full employment with the recognition that it would involve stable real wages and it is presumed stable inflation. But putting a different name on this concept of full employment does not remove the essential question which reflects the difference between Keynes (1936) and Friedman, that is whether the NRU is a strong attractor for actual unemployment and whether movements in aggregate demand or in the real wage would be the primary mechanism by which the NRU could be attained. The NAIRU does not carry any connotation of involving full employment, though it does raise the same issue of whether it is a strong attractor for the actual rate of unemployment.

For reasons which will become apparent below, we will talk of the CISRU, the constant income share rate of unemployment. The CISRU is not viewed as a supply-side only phenomenon, but rather it is influenced by the path of aggregate demand through its impact on investment in capital equipment, research and development and education and training, insofar as these factors influence the reconciliation of conflicting claims on income share. The CISRU is not viewed as necessarily unique, and indeed it might be preferable to use the term constant income share plateau of unemployment. The CISRU is not seen as a strong attractor of the actual rate of unemployment, but rather actual rates of unemployment are seen as determined by the level of aggregate demand.

The simple point which we seek to make here is that in so far as any point in time there is a rate of unemployment below which the struggle over income shares would lead to rising inflation, then how that rate of unemployment is viewed in terms of the underlying determinants of the rate has immense significance for economic policy. In contrast to the tenor of most discussion of the NAIRU, we would wish to argue that the CISRU can be shifted through appropriate macroeconomic demand policies (see Sawyer, 1997 for further discussion) but also should be viewed in terms of a distributional constraint on full employment : or more accurately a constraint arising from the conflict over income distribution.

There have been numerous derivations of the NAIRU, and some are less theoretical unsatisfactory than others.[3] The presence of numerous, often contradictory, models from which a NAIRU is derived

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as an equilibrium outcome suggests a lack of coherence of the concept. It is an essentially unobservable concept, and at the same time is a concept for which there are several interpretations. However, these different derivations generally share the common feature that the equilibrium conditions include the condition that the difference between the rate of increase of wages and that of prices is equal to the rate of change of productivity. This is, of course, just the condition that the shares of wages and of profits in national income are constant. Lower levels of unemployment, associated with higher rates of capacity utilisation, would involve stronger pressures for both wages and profits to rise. Unemployment serves to moderate wage claims, reduced capacity utilisation to restrain prices and profits. In order to emphasise that unemployment is viewed as a mechanism for restraining wage claims, and that low levels of capacity utilisation perform a similar function for price (relative to costs) we use the term CISRU.

The condition that the share of profits in national income is constant is an essentially macroeconomic one: it is macroeconomic in the sense that it is an aggregate concept for which there is no microeconomic or individual level counterpart. Thus, the CISRU (and indeed the NAIRU) is not to be thought of as derived from the summation of individual choices, but rather as derived from the systemic requirement that income shares for wages and profits are brought into some consistency with one another and that there is no strong trend in either of them.

The significance of the simple observation that the NAIRU is based on constant income shares is twofold. First, it helps to explain why the estimates of the NAIRU tend to vary in line with the actual experience of unemployment. Simply, it is well known that the distribution of income is relatively stable (and figures on recent movements in the share of profits are given below). With the distribution of income relatively stable, then it is likely that any successful estimate of a rate of unemployment which is consistent with a constant share of profits will be fairly close to actual unemployment. Second, insofar as the NAIRU is a barrier to full employment, it arises from a struggle over income shares. Hence it does *not* arise in any essential way from 'imperfections' in the labour market or from 'excessive' unemployment benefits. Those 'imperfections' in the labour market or unemployment

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benefits would only effect the NAIRU in so far as they were an influence on the bargaining strength of at least one party to the conflicts over income distribution or on the manner in which the conflict over income shares is resolved. For example, 'imperfections' in the labour market would usually be taken to relate to institutions such as trade unions and centralised collective bargaining which are clear departures from perfect competition, and which in the orthodox approach would raise the rate of unemployment. But viewed from a distributional point of view, the question is whether trade unions and centralised bargaining structures permit the resolution of conflict in a less inflationary manner (as has been suggested in the literature on corporatism, e.g. Rowthorn, 1992).

The NAIRU (and also the CISRU) is a theoretical concept, which may or may not correspond to anything which exists in the real world (and even if the NAIRU exists, it may not be a strong attractor for the level of unemployment). As a theoretical construct, the NAIRU has a variety of attributes, from which many policy conclusions flow. Clearly, the most usual policy conclusion which is drawn is that demand policies have no effect on the underlying rate of unemployment and that supply-side measures are required to shift the NAIRU. We would draw two rather different conclusions from the CISRU. First, aggregate demand influences both the current level of unemployment and any CISRU, and that there is an interdependence between the two. Second, viewing the CISRU (and the NAIRU) as the level of unemployment which maintains income shares constant points to the important influences on the NAIRU (in addition to the path of aggregate demand) as being the pressures for each income category and the mechanisms to reconcile those pressures.

The policy implications of this brief discussion are clear. Since the CISRU is derived from a systemic requirement, the mechanism for changing it in a desirable direction has to focus on changing systemic features of the economy (notably the mechanisms by which wages and prices are determined) rather than altering individual behaviour in terms of job seeking etc..

Aggregate demand and the distribution of income

From a Keynesian perspective, the significance of the distribution of income comes from the effects which it can have for the level of aggregate demand. It is generally argued that the propensity to

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spend on consumption out of wages is substantially higher than the propensity out of profits, though profitability is an importance influence on investment (whether through the prospect of future profitability or as an important source of finance for investment). With capacity utilisation as a further influence on investment, the Keynesian equality between leakages and injections becomes:

$$s_1 W + s_2 P = i(u,m,C)K + (G-T) + (X-M) \quad (1)$$

where W is wages, P profits, u capacity utilisation, m profit share, I rate of investment relative to the capital stock (i.e. the rate of expansion of the capital stock), K the capital stock, $G - T$ the budget deficit and $X - M$ the trade surplus and C reflects the influences of technological change and confidence on investment. This equation is an adaption of ones used by Marglin and Bhadhuri (1990) and Sawyer (1995). The rate of profit can be seen as an influence on investment since $r = m.u/v$ where v is the capital- capacity output ratio. Space precludes a discussion of the influence of income distribution on the budget deficit and on the trade position (though see Laramie, 1991 and Laramie and Mair, 1996 for discussion of taxation and income distribution and Arestis and Driver, 1988 for the influence of income distribution on imports). Dividing eqn (1) through by the level of income yields :

$$(s_1(1-m) + s_2 m)u = i(m,u,C).v + bu + tu \quad (2)$$

This can readily be interpreted as an equilibrium condition which relates the distribution of income with the rate of capacity utilisation. We use this equilibrium condition as a convenience, and would, of course, note that investment is liable to cycle for well-known accelerator reasons as well as through the impact of 'waves of optimism and pessimism'. From eqn. (2), an equation (3) can readily be derived which can be interpreted as an equation determining profits in the usual Kaleckian manner.

$$m.u = (iv - s_1 u)/(s_2 - s_1) + (b+t)u \quad (3)$$

This small model can be completed by the addition of an equation of the form $m = m(u,X)$ where X

is some appropriate measure of market power, and the sign of the relationship may be positive or negative (a positive relationship arising from enhanced market power with higher levels of capacity utilisation and a negative one from the enhanced strength of labour with lower levels of unemployment restraining profit margins).

The question which arises from eqn. (2) is the sign of the relationship between the share of profits and capacity utilisation. Assuming that the Keynesian condition that the effect of higher income (capacity utilisation) on savings is greater than the effect on investment holds, then the sign of the relationship depends on the sign of $vi_1 - u(s_2 - s_1)$. When this term is negative (i.e. which the effect of profits on investment, i_1 the first derivative of I with respect to m, is relatively low), this corresponds to what Marglin and Bhadhuri term the stagnationist regime; when the term is positive to the exhilirationist regime.

The next aspect of eqn.(2) is that its general position will depend on the some underlying conditions such as the state of 'animal spirits' and of technological dynamism (reflected in the variable C). The share of profits is also influenced by the rate of capacity utilisation from the perspective of pricing and wage determination decisions. To the extent to which the profit share is positively related to capacity utilisation (as envisaged by Bhadhuri and Marglin) then a more 'dynamic' investment function (and an outward shift in eqn. (2)) will lead to both higher share of profits and higher capacity utilisation (and hence higher rate of profits).

The distribution of income between wages and profits may form a barrier to full employment in at least two respects. First, there are underconsumptionist arguments to the effect that there may be inadequate aggregate demand for support full employment. This has often been associated with the idea that the share of wages in income is too low, generating low consumption demand. From the equations above, the argument would need to be modified to allow for the possible stimulating effects of profits on investment.

Second, there may be insufficient capital stock to employ the available workforce, which can arise from low capacity utilisation, leading to low investment and increases in the capital stock. Capacity

utilisation may well adjust to the levels thought desirable by enterprises at lower levels of demand but at the expense of a relatively small capital stock.

Marglin and Bhadhuri (1990) interpret the general experience of the 1950s and the early 1960s as consistent with an outward shift in the equivalent of eqn. (2), followed by a downward shift in the relationship between profit share and capacity utilisation in the late 1960s and early 1970s which is associated with a lower profit share though higher capacity utilisation.

We now seek to give a brief interpretation of macroeconomic conditions since circa 1980 (with comparisons with the 'golden age') in terms of the equations given above. Growth rates for the OECD area as a whole declined from an annual average of 5 per cent over the period 1960 to 1973, to 2.75 per cent for 1973 to 1979 and then to 2.4 per cent for the period 1979 to 1994 (comparable figures for the European Union are 4.72 per cent, 2.53 per cent and 1.93 per cent). The precise figures are, of course, influenced by the start and end dates used but do illustrate the general slow down in the rate of growth. The growth of investment shows an even more pronounced pattern : for the OECD as a whole average growth of 6.35 per cent (5.43 per cent for the EU) over the period 1960 to 1973, down to 1.25 per cent (0.1 per cent for EU) over the period 1973 to 1979 and then 2.42 per cent from 1979 to 1994 (1.45 per cent for the EU). The record on unemployment is well-known with much higher (and for many European countries generally rising) unemployment levels since 1973 (and notably since circa 1980) than were experienced during the 'golden age' of the quarter of a century up to 1973.

Table 1 near here

The figures in Table 1 first serve to indicate the general recovery of profitability since circa 1980 with rates of profit higher in the first half of the 1990s as compared with the 1970s with the exception of Japan). The share of profits shows a less uniform picture with some decline between the second half of the 1980s and the first half of the 1990s, It is well-known that there had been a general profit 'squeeze' during the 1970s and into the early 1980s for many countries. The figures of Armstrong and Glyn (1986) (as reported in Marglin and Bhadhuri, 1990) show a decline in the rate of profit

through to 1975, with some increase in the second half of the 1970s followed by a decline in the first few years of the 1980s (presumably under the impact of a general recession). We can reflect on the causes of this revival in profitability. The period of the 1980s and 1990s has been characterised as one during which the process of globalisation has proceeded at a fast pace with increased competition and inter penetration of national markets with rising international trade and foreign direct investment. This perceived increased degree of competition stands in contrast with the revival of profitability. These figures on profitability would seem more supportive of the notion that globalisation, alongside the general reduction in trade union rights and powers, has significantly increased the power of transnational corporations vis-a-vis workers and governments, with the resulting increase in profitability.

The figures are suggestive that profitability has generally been rising since the late 1970s and early 1980s though generally not reaching the levels experienced during the 1960s. The interesting question is how this experience relates to the generally lower rates of growth and higher levels of unemployment which have been experienced since the mid 1970s (as compared with preceding 'golden age'). There are exceptions to that general experience, and particularly that unemployment in the United States has recently been recorded at levels similar to those of much of the 'golden age'. It should though be noted that the Kaleckian type model outlined above says nothing directly about the level of unemployment, but rather models the level of economic activity (or the rate of capacity utilisation), and how the level of capacity utilisation translates into unemployment depends on the size of the available capital stock.

Table 2 near here

Eqn. (3) above suggests that, for given budget deficit and foreign trade position, that investment and profits will be closely related through adjustment of capacity utilisation, and hence that there would be a close relationship between profit share and investment to GDP ratio. In a similar vein, there would be an anticipated close link between growth of the capital stock and the rate of profit. It is then notable from Table 2 (which includes figures on the ratio of the operating surplus to GDP which is

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alternative measure of the share of profits in national income) that the revival of profits has not generally gone alongside any revival of investment. This would first seem highly suggestive that investment does not respond markedly to movements in profitability, and hence that economies are generally operating in a stagnationist rather than an exhilirationist regime. At this point, these figures are only suggestive, and much more work would be required to confirm, or otherwise, these inferences. But at a minimum we can remark that the recovery of profits has not been associated with any marked recovery of growth.

Table 3 near here

The figures in Table 2 refers to gross investment, yet as Table 3 indicates, depreciation on the existing capital stock has increased significantly since 1980 (relative to pre-1973). This is suggestive of some combination of a higher capital-output ratio (and hence a higher depreciation-output ratio) and faster depreciation due to technological change.

Capacity utilisation can be expected to have a strong influence on the rate of profit, though a rather less pronounced effect on the share of profits in national income. The figures produced by the OECD (summarised in, for example, OECD, 1996, Annex Figure 2) do not suggest any pronounced trend in capacity utilisation, and given the ability of enterprises to adjust the size of their capital stock to demand, this is not a surprising conclusion. Those figures do, though, show a marked dip in capacity utilisation around 1982, and outside of the United States declining levels of utilisation during the early 1990s. However, these figures are of limited usefulness as they appertain only to the manufacturing sector.

Tables 4 and 5 near here

There are many other adjustments which are relevant in terms of eqns (2) and (3), and we highlight two here. The first relates to the propensity to save out of wages and out of profits. We do not have direct information on savings out of labour income, but the propensity to save out of household income has tended to decline somewhat (cf. Table 4). The pattern of savings by the corporate sector is strongly influenced by the depreciation (consumption of capital), which has been rising (reflecting

in part a rising capital to output ratio). But gross savings relative to the operating surplus of the corporate sector does not display any pronounced trend, and net savings (relative to the operating surplus) fluctuates widely. The second relates to the government budget position. Although (particularly under pressure from the Maastricht criteria) budget deficits have tended to fall in the past couple of years, the figures in Table 5 indicate that in the first half of the 1990s budget deficits (relative to GDP) were somewhat above those for the first half of the 1980s, suggesting that budget deficits were helping to maintain profit shares in the face of a failure of investment to revival.

These are rather broad brush statements seeking to summarise the general experience of seven countries. But the pattern which emerges goes along the following lines. Profitability has been reviving since circa 1980, but this has not been accompanied by any revival in investment or in the underlying growth rate. There has been some accommodation to this rising profitability through declines in household savings and through budget deficits.

In terms of the model sketched above, the figures presented here suggest that there has been an upward shift in the relationship between the share of profits and capacity utilisation (reflecting the enhanced power of business relative to labour). This has arisen in an era of slower growth of output and of investment, which would correspond in our model to a decline in the variable C and an inward shift of the relationship between capacity utilisation and profit share based on aggregate demand considerations (eqn. 2). The lack of response of investment (relative to GDP) in the face of rising profitability suggests that economies are now in a stagnationist regime. The higher levels of profit share have tended to put downward pressure on capacity utilisation. However, over a number of years, business adjust their capital stock to the level of demand, and thereby capacity utilisation appears to recover. But the counterpart on the employment side is a tendency towards rising unemployment.

Macroeconomic policy and the distribution of income

Much of the focus of macroeconomic policy has fallen on the achievement of a low rate of inflation, and it could now (in 1997) be said that there has been some success in bringing inflation down to low

levels. But this present position has only been reached after some two decades of policies directed at reducing inflation. It has already been remarked that the orthodox approach to monetary policy is still firmly based on the classical dichotomy between the real and the monetary sectors.[4] In the context of that dichotomy, it can be asserted that control over the money stock and over the rate of inflation will be neutral with respect to the level of unemployment (often, of course, exemplified by the notion of a vertical long-run Philips curve) and with respect to the distribution of income. It then appears that setting interest rates in order to influence the stock of money in pursuit of a target rate of inflation becomes essentially a technical matter, and one which should be removed from the hands of politicians. Simply stated, central bankers can be presumed to have more technical expertise than politicians and their advisers in relation to the financial markets, and politicians will be tempted to set interest rates in pursuit of short-term popularity.[5] We have a range of concerns on proposals for an independent Central Bank (see Arestis and Sawyer, 1997, Sawyer, 1994), but here focus on the distributional aspects, and specifically the effects of interest rate and other instrument of monetary policy on the distribution of income. We can only agree with Arestis and Howells when they write that 'Given the central position of interest rates in UK macroeconomic policy through the 1980s, it seems curious that so little attention has been paid to the distributional impact of interest rate changes.' (Arestis and Howells, 1994, p.56). Some recent studies (admittedly rather few in number) have examined distributional aspects of deflationary monetary policies, which have generally been found to be adverse. One study for the United States, concludes that 'In principle the burden of a monetary contraction should fall disproportionately on interest-sensitive sectors, small firms, low-income workers, and minorities. The benefits of a disinflation should accrue primarily to creditors such as bond market investors. Evidence from impulse-response functions, a social accounting matrix, and the 1979-82 disinflation all indicate that this is so' (Thorbecke, 1997, p.20). Another for the United States similarly found that '... monetary policy, broadly defined to include legislated changes in the system of financial industry regulations ... as well as the narrower aspects of monetary policy ... has been instrumental in increasing the inequality of income distribution at least since the late

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1970s' (Niggle, 1989, p.810). A study for the United Kingdom found that 'as a result of the large rise in variable interest rate liabilities relative to assets, a rise in UK interest rates redistributes income away from the personal sector, when, 12 years ago, the personal sector would have been a net gainer' (Arestis and Howells, 1994, p.64).

There are clear reasons for acknowledging that fiscal policy will have distributional effects since it incorporates tax and expenditure policies which are clearly not in general neutral in income distribution terms in their impact. In contrast, monetary policy is generally adjudged to be distributionally neutral, and hence can be used in pursuit of the control over inflation without concern over distribution (or indeed over other real side effects). The evidence for the few studies which have looked at this question suggest that the distributional effects can be of some significance.

Conclusions

This paper has been concerned to reassert the significance of income distribution for macroeconomic analysis. It has argued that the NAIRU should be viewed as a possible distributional constraint on the achievement of full employment with the implication that mechanisms to resolve distributional conflict without resort to the weapon of unemployment are required if full employment is to be secured. The significance of income distribution for aggregate demand has then been examined, and it was argued that higher profit shares in the past 15 years have harmed the prospects for high levels of employment. It has then finally been argued that monetary policy should not be seen as a technical matter but rather as a policy with significant distributional impacts.

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Table 1 Profitability in the G7 countries

(a) Rates of profits (percent) in the business sector: annual averages

	USA	Japan	Germany	France	Italy	UK	Canada
1970-79	14.0	17.9	11.8	12.6	11.4	10.1	15.0
1980-84	14.0	13.6	10.5	10.5	11.9	9.1	17.9
1985-89	16.3	15.0	11.9	13.2	14.0	10.0	19.4
1990-95	17.6	14.6	12.8	14.6	14.5	10.6	17.9

(b) Percentage share of capital income in national income : annual averages

	USA	Japan	Germany	France	Italy	UK	Canada
1970-79	32.3	33.7	29.7	31	31.4	30.1	34.9
1980-84	32.7	30.2	29.6	29.0	35.0	30.6	37.5
1985-89	33.8	32.8	33.3	35.5	37.9	31.0	37.5
1990-95	33.6	33.4	34.5	38.5	38.4	29.2	34.0

Note: Capital income includes imputation for the capital income of the self-employed.

Source: Calculated from OECD (1996a) Annex Tables 25 and 24

Table 2 Investment and operating surplus in a range of countries.

(a) Gross Investment as a proportion of GDP (percentage)

	1960-73	1974-79	1980-84	1985-89	1990-94
USA	19.31	20.06	19.79	19.10	16.56
Japan	35.33	32.70	29.88	29.39	31.02
France	25.74	24.71	21.36	20.48	19.75
Germany	26.45	21.46	20.86	19.88	20.23
Italy	26.34	25.78	24.00	21.46	18.94
UK	19.29	20.04	16.32	18.79	16.29
Canada	23.55	24.79	21.46	21.79	19.20
OECD	24.55	24.13	22.39	21.87	21.00
EU(15)	25.25	22.59	20.62	20.37	20.07

(b) Operating surplus as a proportion of GDP (percent)

	1960-73	1974-79	1980-84	1985-89	1990-94
USA	22.72	19.10	18.05	19.97	19.21
Japan	36.93	27.37	25.44	25.01	20.72
France	29.67	21.96	18.53	21.81	22.44
Germany	26.90	20.75	18.69	21.44	21.91
Italy	36.50	32.73	34.61	36.18	34.10
UK	19.66	15.95	16.42	19.31	19.65
Canada	22.37	22.11	22.74	22.78	18.78
OECD	26.27	21.81	21.06	23.07	23.08
EU(15)	25.93	20.97	20.98	24.10	24.71

Calculated from OECD(1996b)

Table 3 Capital consumption as a proportion of GDP

	1960-73	1974-79	1980-84	1985-89	1990-94
USA	10.21	12.22	13.82	12.81	12.46
Japan	12.82	12.60	13.32	14.03	15.45
Germany	9.56	11.24	12.59	12.67	12.85
France	8.89	11.34	12.56	12.57	12.93
Italy	10.37	12.07	12.12	4.70	12.06
UK	8.75	11.24	12.09	11.43	10.66
Canada	11.67	11.03	11.64	11.63	12.32
OECD	10.47	11.87	12.96	12.66	12.59
EU(15)	9.52	11.11	12.17	12.04	12.12

Source: Calculated from OECD(1996b)

Table 4 Household savings rates (as a proportion of household disposable income)

	USA	Japan	Germany	France	Italy	UK	Canada
1980-84	8.42	16.98	12.28	16.66	22.32	11.62	15.40
1985-89	5.80	14.18	12.30	12.08	18.04	7.86	10.66
1990-95	5.27	13.20	12.50	13.66	16.25	10.36	9.39

Source: Calculated from OECD (1996a) Annex Table 26

Table 5 General government deficits as a proportion of GDP

	USA	Japan	Germany	France	Italy	UK	Canada
1980-84	2.62	3.50	2.88	2.14	10.78	3.14	4.72
1985-89	2.62	-0.56	1.30	2.08	11.18	0.94	4.28
1990-95	3.05	-0.03	2.93	3.90	9.40	5.05	5.80

Source: Calculated from OECD (1996a) Annex Table 30

Endnotes

1. For a critical discussion of the concept of the NAIRU see Sawyer (1997).

2. This presumption by economists may help to explain why economists tend to view the costs of inflation as small, in contrast to the public perception where the association of inflation with changes in income distribution (notably price of consumer goods relative to money wages) appears significant. See, for example, Shiller (1997).

3. However, Layard, Nickell and Jackman (1991), Layard and Nickell (1985) are probably the most widely cited ones. The approaches of Rowthorn (1977) and Sawyer (1982) are also relevant here.

4. For further discussion of this in the context of arguments for independent Central Banks, see Arestis and Sawyer (1997). Much discussion on monetary policy (specifically that control over the growth of the money stock will restrain inflation) proceeds as though the money supply is controllable, though most would agree that, at best, the stock of money can be indirectly influenced by interest rate changes.

5. See, however, Epstein (1992, 1994) for an examination of the institutional and political factors influencing the role of the Central Bank, whether or not nominally independent.