

10. An exchange 25 years later between Professor Stephen Nickell and Tim Congdon

- I. 'THE BUDGET OF 1981 WAS OVER THE TOP', BY STEPHEN NICKELL¹ – CONTRIBUTION TO PHILIP BOOTH (ED.), *WERE 364 ECONOMISTS ALL WRONG?* (LONDON: INSTITUTE OF ECONOMIC AFFAIRS, 2006)

After the 1981 Budget, 364 university economists in Britain wrote to *The Times* to complain about the tightness of macroeconomic policy, prompted by the plans in the Budget to cut public sector borrowing by some £3.3 billion, mainly by increasing taxes. It is now a commonplace view that the 364 were wrong to complain because, shortly after publication of the letter, the growth rate of real domestic demand and GDP switched from negative to positive. As it happens, this view is incorrect. As one of the 364, I would say that, wouldn't I? So in what follows I pursue this question by analysing the periods before and after the sending of the letter. I conclude that the 364 economists were perfectly correct to complain about the macroeconomic policy of the day back in 1981.

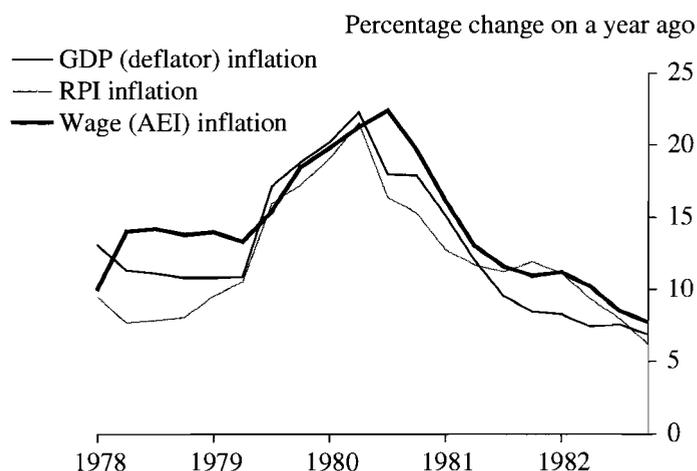
I signed the letter because, at the time, I had long thought that monetary policy was too tight and tightening fiscal policy in early 1981 was a mistake. While it was true that the letter was not everything I might have wished for, it was the only show in town, and I felt that I should stand up and be counted. In particular, I had always believed that the world was best understood in a NAIRU² framework, and indeed at the time I was busy trying to estimate the path of equilibrium unemployment in Britain (see Nickell, 1982). So it is no surprise that I did not find the implicit theoretical analysis underlying points (a) and (d) in the letter entirely to my taste. I approved wholeheartedly, however, of the main points (b) and (c), and still do.³ So how might they be justified in the light of the fact, already noted, that output growth in Britain turned positive shortly after the letter appeared? Surely, it is typically argued, all this talk of deepening depression must be so much hot air in the light of this fact. Fortunately for me, this argument

is just wrong. For the depression to deepen or the output gap to become more negative, output growth does not have to be negative, it merely has to be below trend. So the 364 cannot simply be dismissed out of hand by pointing to the time series of GDP growth. More analysis is required.

When the Thatcher government took office in the spring of 1979, annual inflation (GDP deflator) was close to 11 per cent and had been falling steadily since peaking at over 25 per cent in 1975 after the disaster of the first oil shock. This fall in inflation had been engineered essentially by trying to use an incomes policy to lower the equilibrium rate of unemployment with actual unemployment fairly stable. In the years leading up to 1979, unemployment had been around 6 per cent using the OECD measure and somewhat lower using the Department of Employment (DE) measure (see Layard et al., 1991: table A3). During this period and for many years before, wages tended to respond rapidly to changes in retail price index inflation unless obstructed by incomes policy; inflation expectations were not stable (as far as we know); and there was no belief in the labour market that government macroeconomic policy would respond aggressively to inflationary shocks.

Aside from scrapping incomes policy, the change of government had little impact on these features of the labour market. The rapid response of wages to changes in RPI inflation, now completely unconstrained by incomes policy, was perfectly exemplified by the year following the first Budget of the new administration in June 1979. The main feature of this Budget was the switch from income taxes to VAT (value added tax). This plus the rise in oil prices raised RPI (retail price index) inflation by over five percentage points between the second and third quarters of 1979, so that after a wage-price spiral (see Figure 10.1), by the second quarter of 1980, RPI inflation was 21.5 per cent, wage inflation was 21.3 per cent and the GDP deflator was rising at 22.3 per cent. Wage inflation continued to rise, reaching 22.4 per cent in the third quarter, by which time the rise in VAT had dropped out of the RPI and things started to subside.⁴ Monetary policy responded aggressively to this inflationary shock with the interest rates used for monetary policy purposes reaching 17 per cent in November 1979, having been at 12 per cent when Mrs Thatcher took office.

So now the basic problem was to get inflation back down again, preferably to some reasonable level, in a world where, as we have seen, governments had little anti-inflation credibility. There is no option in this situation but to use a tight macroeconomic policy to raise unemployment well above the equilibrium rate and then wait for inflation to subside, before gradually loosening policy. The whole process is tricky, all the more so because if some of the unemployed become detached from the labour market after being unemployed for a long time, they are no longer so useful at exerting downward pressure on pay rises.



Note: AEI = average earnings index.

Figure 10.1 Inflation, 1978–82

This, in essence, was the policy that was pursued. Of course, the details of the macroeconomic policy regime were quite complicated with monetary targets, the Medium-Term Financial Strategy and so on. But to get inflation down, unemployment had to go above the equilibrium rate. In due course, policies that might reduce the equilibrium rate could be introduced, but, in the meantime, the current equilibrium rate was probably around 7 or 8 per cent and so macroeconomic policy had to push unemployment above this level. By the time of the 1981 Budget, unemployment was rising rapidly thanks to the very tight monetary policy, having increased by some 4.2 percentage points on the DE measure over the previous year.

As we have seen, planned fiscal policy was tightened significantly in the 1981 Budget and, at the same time, interest rates were cut from 14 per cent to 12 per cent. They were, however, raised back to 14 per cent on 15 September and to 15 per cent on 12 October, so the monetary easing was temporary. In the complaint of the 364 economists, it was argued that the depression would deepen. So what happened? Despite positive output growth, unemployment continued to rise (see Figure 10.2). Unemployment peaked on the OECD measure at 12.5 per cent in 1983 but did not fall below 11 per cent until 1987. On the DE measure, unemployment continued to rise, year after year, until it peaked at 11.2 per cent in 1986. Under the not unreasonable assumption that rising unemployment means that growth is below trend (there being no reason to believe equilibrium unemployment

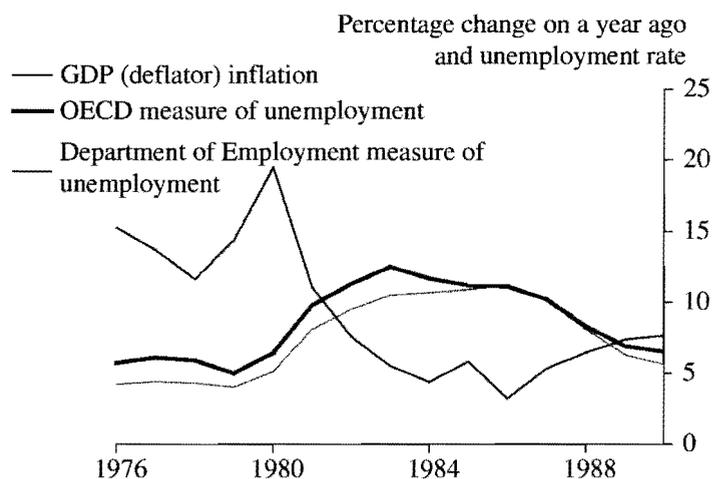


Figure 10.2 Unemployment and inflation, 1976–90

was rising much between 1982 and 1986), the depression deepened until somewhere between 1983 and 1986, as the 364 said it would. Even though unemployment has to be above the equilibrium rate to get inflation down, this strikes me as overkill. By the time of the 1981 Budget, monetary policy was already too tight. It could have been loosened and the fiscal stance need not have been tightened and still unemployment would have been far enough above the equilibrium rate to bring inflation down. Maybe it would not have come down quite so fast, but with the fall in oil prices in 1986, it would almost certainly have been at reasonable levels in 1987. As it happened, of course, by 1987 macroeconomic policy was so gung-ho that by 1990 GDP inflation was back at its 1982 level (7.6 per cent) and the whole business had to be repeated in an only slightly less dramatic fashion.

So is there any excuse for the policy overkill which the 364 economists complained about so bitterly? One possible excuse was that the exceptionally rapid rate of productivity growth from 1982 to 1986 was not expected. During this period, whole economy productivity growth was close to 3 per cent. This was not just a cyclical recovery and was unusually high by recent historical standards (see Nickell et al., 1992, for some explanations). So over this period, trend growth rates would have been especially high, particularly relative to the 1970s. This would make it more likely that macroeconomic policy would be set in such a way as to generate output growth at a rate lower than would be desirable. And this is exactly what happened.

The main complaint of the 364 economists in their 1981 letter was that macroeconomic policy was unnecessarily tight and that it would deepen the

depression. By ensuring that subsequent output growth was beneath trend for a number of years, it did indeed deepen the depression just as predicted. Furthermore, it was unnecessarily tight in the sense that a somewhat looser policy would still have raised unemployment far enough above its equilibrium level to bring inflation down over a reasonable period. So in their key comments on the facts of the case, the 364 economists turned out to be completely correct.

Notes

1. I am grateful to Chris Shadforth for his help in the preparation of this paper.
2. Non-accelerating inflation rate of unemployment. Broadly this means the rate below which unemployment cannot fall without inflation rising.
3. The letter is reproduced as an addendum to the introduction to this part of the book, on p. 176, but, in summary, (a) stated that there was no basis or evidence in economic theory that government policies would permanently reduce inflation; (b) stated that the present policies would deepen the depression; (c) stated that there were alternative policies; and (d) stated that the time had come to reject monetarist policies and pursue alternatives.
4. While the report on the Clegg Commission on Public Sector Pay was important for those working in the public sector, its consequences for overall wage inflation were not large. Were Figure 10.1 to be based on private sector wage inflation, it would look very similar. The public sector was not big enough to have a dramatic impact.

References

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II. A COMMENT ON NICKELL'S 'THE 1981 BUDGET WAS OVER THE TOP', BY TIM CONGDON – PUBLISHED IN *ECONOMIC AFFAIRS* (LONDON: IEA), DECEMBER 2006 ISSUE

As is well-known, the large increase in taxation announced in the 1981 Budget provoked 364 economists to write a letter of protest to *The Times*. They predicted that the tax increases would deepen 'the depression' (as they termed it). The consensus view nowadays is that the 364 were wrong, as falls in output in the 18 months to the first quarter of 1981 were succeeded by rising output from the spring of 1981 onwards. In his contribution to the IEA's recent collection of essays on *Were 364 Economists All Wrong?* Professor Stephen Nickell defends the 364, on the grounds that 'For the

depression to deepen . . . output growth does not have to be negative, it merely has to be below trend. So the 364 cannot be dismissed out of hand by pointing to the time series of GDP growth. More analysis is needed'. In the key passage he notes that the UK's official measure of unemployment continued to rise until 1986. It follows, in his view, that: 'Under the not unreasonable assumption that rising unemployment means that growth is below trend (there being no reason to believe that equilibrium unemployment was rising much between 1982 and 1986), the depression deepened until somewhere between 1983 and 1986, exactly as the 364 said it would.' The purpose of this note is to refute Nickell's statements and to insist that the 364 were indeed all wrong. Contrary to his claims, it was above-trend growth – and not just growth – that resumed within a few quarters of the 1981 Budget. Nickell's selection of 1986 as the cut-off date to reach his conclusions is somewhat arbitrary and (despite what he says) it has no warrant in the letter from the 364. However, the discussion here relates to Nickell's chosen 1981–86 period.¹

A condition of above-trend growth can be defined in two ways, either relative to the average rate of growth over the longer run (that is, growth is above trend when it is higher than a long-run average) or by reference to unemployment (that is, growth is above trend when the rate of unemployment, appropriately defined, goes down). Nickell concentrates on unemployment, but it may help to understand the years in question by examining output trends by themselves. An unusual feature of the UK economy is that its long-run growth rate has been stable at about $2\frac{1}{4}$ per cent a year since 1945. Since the $2\frac{1}{4}$ per cent figure is generally accepted, a legitimate procedure would be to compare it with actual growth in the 1981–86 period. But purists might object that a calculation should be made of the average growth rates in the cycle concurrent with the events under discussion and in the immediately preceding cycles. The results of this calculation are shown in Table 10.1, which perhaps raises the benchmark to $2\frac{1}{2}$ per cent. (Whether $2\frac{1}{4}$ or $2\frac{1}{2}$ per cent is the right number seems to the author to be a matter of opinion.)

What, in fact, were the growth rates of output and demand in the five-year period from 1981 to 1986? Were they above, beneath or in line with the critical numbers of $2\frac{1}{4}$ and $2\frac{1}{2}$ per cent? Table 10.2 gives the answer. (Note that the first one-year period to be reviewed is that to the second quarter 1982, that is, the first period of a full four quarters following the 1981 Budget. Output is measured by GDP at market prices.)

The evidence in Table 10.2 is clear. Only one of the ten numbers is not *above* $2\frac{1}{2}$ per cent and that is the growth rate of output in the year to Q2 1984, which was hit by the miners' strike. If the Q2 1984 number is put to one side as distorted, the growth rates of output and demand in the five years to the second quarter 1986 were consistently above the $2\frac{1}{2}$ per cent

Table 10.1 What was the 'average' growth rate of the UK economy at the time of the 1981 Budget?

	Growth rates, %, annual, of GDP at market prices	Domestic demand
From Q1 1965 to Q2 1989	2.4	2.6
From Q4 1973 to Q2 1989	2.2	2.3
From Q4 1979 to Q2 1989	2.4	2.9
Average of the three cycles	2.3	2.6

Notes: The previous cyclical peaks had been in Q1 1965, Q4 1973 and Q4 1979. The next cyclical peak was to be in Q2 1989. Peak-to-peak growth rates have to be calculated, as otherwise the average growth rate would be affected too much by changing margins of slack in the economy.

Source: Data in Office for National Statistics website at March 2006 and author's calculations. Calculations made on series in constant prices and seasonally adjusted.

Table 10.2 What were the annual growth rates of demand and output in each of the full five years after the 1981 Budget?

	Growth rates, %, annual, of GDP at market prices	Domestic demand
Year to Q2 1982	2.7	3.3
Year to Q2 1983	2.6	3.9
Year to Q2 1984*	2.5	3.2
Year to Q2 1985*	4.6	2.6
Year to Q2 1986	3.3	4.9

Note: * Affected by miners' strike, downwards in 1984 and upwards (when coal output resumed) in 1985.

Source: Data in ONS website in March 2006 and author's calculations.

threshold.² Particularly impressive is that the average annual rate of growth of domestic demand growth was 3.6 per cent, faster than that of output and well above the 2½ per cent number. Since the 364 were Keynesian economists whose policy injunctions ran in terms of demand and who specifically stated in their letter that the then Conservative government's policies involved 'deflating demand', only one verdict makes sense. If the behaviour of the UK economy in the five years from the 1981 Budget is considered in terms of demand and output growth relative to long-run averages, the 364 were hopelessly wrong.

But Nickell instead wants the debate to hinge on developments in the labour market and, particularly, on the change in unemployment. Here he appears to have a significant piece of evidence on his side, that the official measure of the rate of unemployment continued to rise until 1986. As already noted, by invoking what he describes as 'the not unreasonable assumption' that 'rising unemployment means that growth is below trend', he comes to the conclusion that the 364 were 'exactly' (yes, 'exactly') correct. What is to be made of this statement?

Nickell, the immediate past president of the Royal Economic Society, is widely regarded as Britain's leading labour market economist. So any questioning of his conclusions might seem rather foolhardy. However, the statements in his contribution to *Were 364 Economists All Wrong?* are charitably described as careless. They are not only misleading as an account of developments in the UK labour market in the 1980s, but also inconsistent with a much admired book on the subject which has Nickell's name on the front cover.³ As he says, more analysis is needed.

It has long been understood that the degree of slack in the labour market is not always accurately measured by 'the rate of unemployment' published by official agencies. The unemployment rate can be measured in at least two ways, by adding up the number of claimants of unemployment benefit or by conducting surveys in which people are asked whether they are looking for work. Nickell's comment that unemployment rose until 1986 is based on the claimant-count figure (although he does mention the OECD's survey approach). The claimant-count number must however be treated with caution. Eligibility for unemployment benefit is affected by changes in the rules, while adjustments to the level of benefit (particularly relative to incomes in work) have an impact on both employment decisions and the extent to which genuinely unemployed people register for benefit.

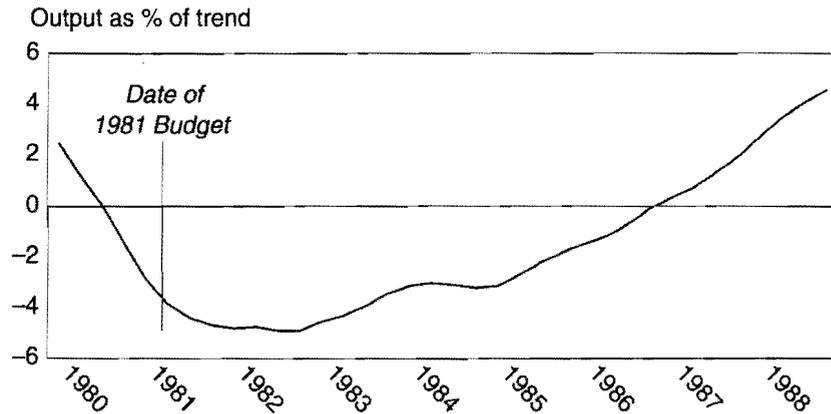
In his celebrated 1967 presidential address to the American Economic Association Milton Friedman proposed the idea of 'a natural rate of unemployment' at which inflation expectations were fully incorporated in behaviour, the demand for labour matched the supply, and the rate of wage inflation was stable. Although Friedman himself was sceptical that this rate could be identified by statistical methods, economists have subsequently spent much time and effort trying to calculate the natural rate. The concept is sometimes given different names, such as 'the NAIRU' ('the non-accelerating inflation rate of unemployment') or 'the equilibrium rate of unemployment'. In the 2005 second edition of their jointly authored book on *Unemployment* (first published in 1991), the equilibrium rate of unemployment is the phrase favoured by Richard Layard, Stephen Nickell and Richard Jackman (or LNJ). Much of the book is devoted to calculations of the equilibrium rate, which the authors believe is influenced by the

unemployment benefit system, employment protection laws, labour taxes and other variables.⁴

A concept closely affiliated to that of the natural or equilibrium rate of unemployment is 'the natural rate of output'. This is the level of output associated with the natural rate of unemployment, and so with stable rates of wage and price inflation. It is often equated with 'trend output', while divergences from trend output are labelled 'the output gap'. In a growing economy the trend level of output is of course increasing over time. The terminology of the output gap has not yet settled down, but the OECD's practice is to define an excess of actual output over trend output 'a positive output gap', with the concept measured as a percentage of trend output. Another usage is to see the output gap as the excess of trend output over actual output, with 'a negative output gap' representing a situation of excess demand or even, in some versions, 'over-full employment'.⁵ The author – like LNJ – prefers the OECD practice, which is adopted in the rest of this note.

Two points emerge from the last few paragraphs. First, if the underlying framework is accepted (and it is accepted by both the author and LNJ), statements about the rate of growth relative to trend are equivalent to statements about the output gap. If the level of the output gap was constant in a particular period, growth ran at the economy's trend rate; if a negative output gap became less negative, growth ran at an above-trend rate; and so on. It follows that – if the two sides to the present debate accept a set of estimates of the output gap – then those estimates go a long way to decide the matter at issue. Secondly, the actual rate of unemployment may not always *by itself* give policy-makers a guide to the level of or changes in the output gap. Instead it is necessary to calculate the equilibrium rate of unemployment, and to compare changes in the actual and equilibrium rates. One ostensibly anomalous case needs to be mentioned. *The actual rate of unemployment may be rising, but as long as the rise is less than that in the equilibrium rate, output growth is above trend.*

For many years the author, with his colleagues at Lombard Street Research, prepared a quarterly output gap series and advised clients on its macroeconomic implications. A chart of this series in the period under discussion accompanies the text (Figure 10.3). But this series may not be regarded as authoritative by other economists and the author does not otherwise have access to quarterly numbers. However, an annual series is published in the OECD's *Economic Outlook*. Table 10.3 shows the OECD numbers as they are currently reported by the Ecwin database.⁶ The OECD's data generate one conclusion which supports Nickell's side of the argument. This is that growth was still beneath trend in 1982. However, with a mere 0.3 per cent increase in the negative output gap in that year, the



Notes: This output gap series was estimated at Lombard Street Research under the author's direction. After the 1981 Budget two or three quarters of beneath-trend growth were followed by roughly trend growth, with the negative output gap reaching its maximum value in Q4 1982. If the effect of the miners' strike is excluded, growth then ran at an above-trend rate until 1989. Other estimates – including Nickell's – are different.

Figure 10.3 An estimate of the UK output gap, 1980–88

difference from trend was trifling. On the reasonable view that output wobbles all the time around its growth path, a band of growth $\frac{1}{2}$ per cent either side of a $2\frac{1}{2}$ per cent central number could be deemed 'trend'. If so, every year from 1982 to 1988 recorded trend or above trend growth. The 364 were plain wrong – and in his defence of the 364 Nickell remains plain wrong today.

How is trend or above-trend growth reconciled with the increase in claimant-count unemployment? The answer is that the ostensibly anomalous case mentioned above did in fact apply in the 1981–86 period. The actual rate of unemployment rose, but the equilibrium rate of unemployment rose a little more. As a result, the margin of slack in the labour market in 1986 was similar to (or slightly less than) that in 1981. In his contribution to *Were 364 Economists All Wrong?* Nickell noted in parentheses that there was 'no reason to believe equilibrium unemployment was rising much between 1982 and 1986'. He ought to have checked what the excellent book co-authored by himself, Layard and Jackman says about the subject. On page 445 LNJ presents a table with the equilibrium rate of unemployment shown as 7.3 per cent in 1974–80, 8.7 per cent in 1981–87 and 8.7 per cent in 1988–90. The accompanying text comments,

Table 10.3 What do 'output gap' estimates say about growth relative to trend in the 1980s?

	Output gap Difference of actual output from trend output, expressed as a % of trend output, with excess of output over trend as a positive value - %	Implied value of growth relative to trend Above-trend growth indicated by a positive number - %
1980	-3.3	
1981	-6.3	-3.1
1982	-6.0	-0.3
1983	-4.5	1.6
1984	-3.6	0.9
1985	-2.0	1.7
1986	-0.4	1.6
1987	2.0	2.4
1988	4.4	2.4
1989	4.2	-0.2

Source: Ecowin, based on OECD and author's calculations.

The estimates of equilibrium unemployment [in our table] give an impression of remarkable stability in the 1980s. This is perhaps a little misleading, because a more detailed look at the numbers suggests that by the mid-1980s equilibrium unemployment had risen to 10 per cent before falling away. (The estimated value of [the equilibrium rate] for 1984-86 is 9.9 per cent.)⁷

If the equilibrium rate was 8.7 per cent in the seven years 1981-87 inclusive and 9.9 per cent in the three years 1984-86 inclusive, and even if the reader is advised that it was 'falling away' in 1987, the equilibrium rate between 1981 and 1983 must have been *lower* than 8.7 per cent. It may have been little more than 7 per cent in 1981. On this basis, the equilibrium rate must have been rising between 1981 and 1986, perhaps by more than 3 per cent of the workforce. As the increase in the claimant count unemployment rate in the five years to mid-1986 was from 7.9 per cent to 11.2 per cent, the actual rate of unemployment could have risen less than the equilibrium rate (although not by very much). It certainly did not rise by notably more than the equilibrium rate, which is what Nickell requires to establish beneath-trend growth.

Admittedly, the figure work on unemployment in the last paragraph is a weaker part of the refutation of Nickell's statements than the two previous bodies of evidence (that is, the figures comparing output and demand growth in 1981-86 with long-run averages, and the OECD output gap series).⁸ The challenge for Nickell is to produce his own quarterly figures

for the equilibrium rate of unemployment and the output gap, to argue that the actual rate of unemployment increased more than the equilibrium rate over extended sub-periods within the overall 1981–86 period, and so to rescue something of his position. Enough has been said to demonstrate that his central contention – that growth was beneath trend for five years from the 1981 Budget – is wrong. As one of the 364 economists who signed the letter to *The Times* in March 1981, it is understandable that Nickell should want to assemble the case for their defence. But the consensus view – that the letter from the 364 was mistimed and misjudged, and almost wholly incorrect in its economic prognosis – remains the right one.

Notes

1. Actually the letter was open-ended about the timing of the end of 'the depression'. When Nickell says that the depression ended between 1983 and 1986 'exactly as the 364 said it would', the use of the word 'exactly' is pure invention. Moreover, everyone accepts that the British economy boomed between 1987 and 1989. The return of boom conditions little more than five years from the date of their letter by itself makes a mockery of the 364, but – to keep the discussion alive – it can be limited to the five years from March 1981.
2. Of course there were 20 quarters in the five years to Q2 1986. A few of these had annual growth rates under 2½ per cent. (Others had annual growth rates well above 2½ per cent.) Nickell might jump on the occasional beneath-trend quarters to support his position, but – with one exception – the author regards this as splitting hairs. (Note that in 1984 output was affected by the miners' strike.) The exception is that growth dipped quite sharply in early 1982 after interest rates were raised in autumn 1981, with base rates above 15 per cent for a few weeks. If Nickell views that as monetary 'overkill', the author agrees. In fact he said as much at the time in newspaper articles.
3. R. Layard, S. Nickell and R. Jackman, *Unemployment: Macroeconomic Performance and the Labour Market* (Oxford: Oxford University Press, 2nd edition, 2005).
4. The LNJ volume, of which the first edition appeared in 1991, was at least partly stimulated by Patrick Minford's *Unemployment: Cause and Cure* (Oxford: Martin Robertson), which had been published in 1983. Both Minford and Nickell insisted that the unemployment rate was affected by such factors as trade union power and the generosity of unemployment benefit. In the circumstances of the time (that is, the late 1970s and early 1980s when unemployment was widely attributed solely to demand deficiency) this was a brave and important contribution to the public debate.
5. The terminological muddle about the 'output gap' concept arises because it originated in two different strands of thought. The first is the Keynesian idea of 'Okun's gap', that is, the excess of the *full* employment rate of unemployment over the actual rate; the second is Friedman's 1967 presidential address to the AEA, in which full employment was rejected as a policy goal, and rising wage inflation was attributed to the excess of the actual rate of unemployment over the *natural* rate. The subject is discussed in more detail in the appendix to the Introduction.
6. The 'output gap' can be estimated in different ways and large revisions are not unusual.
7. LNJ, *Unemployment*, 2nd edition, p. 445.
8. Part of the explanation for the divergence between the output gap numbers (which at sharply at variance with Nickell's claims) and the unemployment numbers (which are less decisive in refuting them) is that the LNJ estimates of the equilibrium rate of unemployment use 'a two-period lag on the explanatory variables in order to take some account of the dynamics'. (LNJ, *Unemployment*, 2nd edition, p. 445) These subtleties do not change the main point, that growth was *not* beneath trend in the 1981–86 period.

III. 'AFTER THE 1981 BUDGET: A REPLY TO
TIM CONGDON', BY STEPHEN NICKELL¹ –
PUBLISHED IN *ECONOMIC AFFAIRS* (LONDON:
IEA), DECEMBER 2006 ISSUE

Introduction

Did the depression deepen after the budget in the Spring of 1981? In my contribution to the IEA's recent collection of essays on the 1981 budget (Nickell, 2006), I argued that it did. In Congdon (2006), Tim Congdon proposed a refutation of my arguments. My core argument is set out in one sentence in Nickell (2006): 'Under the not unreasonable assumption that rising unemployment means that growth is below trend (there being no reason to believe that equilibrium unemployment was rising much between 1982 and 1986), the depression deepened until somewhere between 1983 and 1986' (p. 59). In what follows, I expand on this sentence and show that it is indeed correct, contrary to the argument set out in Congdon (2006).²

The detail is important. The 364 economists said that the depression would deepen. I said that it did, in fact, deepen from 1981 Q1 to some point in the period from 1983 and 1986. In Congdon (2006) is a figure showing the UK's output gap. Eyeballing this figure reveals that this measure of the output gap reached its lowest point in 1983 Q1. Both the statement of the 364 and my statement are consistent with this fact. I could simply rest my case but it is worth pursuing this issue a little further.

Measuring the Output Gap

A depression deepens if growth is below potential or, more formally, if the output gap becomes more negative. One way of measuring this is simply to work out the average growth rate of the economy over a long period, equate this average to trend growth or the potential growth rate, then compare actual growth to this average. If it is below, the depression deepens, if it is above, it does not. This use of long-run averages is, however, hopeless in periods when the trend of productivity growth is changing. Thus, as in many other countries, trend productivity growth in the UK slowed down in the 1970s. And in the 1980s it speeded up again for reasons which have been much discussed (see Nickell et al., 1992, for example).

So a more precise analysis is required. Let us start with how to measure the output gap. Suppose we have a Cobb–Douglas production function (in logs), namely,

$$y_t = \alpha(n_t + h_t) + (1 - \alpha)k_t + a_t \quad (10.1)$$

y = output, n = employment, h = hours, k = capital, a = total factor productivity (TFP). On trend we have

$$y_t^* = \alpha(n_t^* + h_t^*) + (1 - \alpha)k_t + a_t \quad (10.2)$$

where n_t^* = 'equilibrium' employment, h_t^* = 'equilibrium' hours. Employment, in logs, is given by

$$n_t = pop_t - ia_t - u_t \quad (10.3)$$

where $pop = \ln$ (population of working age), ia = inactivity rate, u = unemployment rate.³

Inactivity went up very slightly in the early 1980s but assume this was an equilibrium phenomenon. So we have

$$n_t^* = pop_t - ia_t - u_t^* \quad (10.4)$$

where u^* is equilibrium unemployment. Differencing these equations, we have a simple expression for the output gap, namely

$$(y_t - y_t^*) = \alpha[-(u_t - u_t^*) + (h_t - h_t^*)] \quad (10.5)$$

This is based on the assumption that once we control for effort, as captured by hours, the remaining *TFP* fluctuations are equilibrium phenomena. If not, there is little we can do since we have no other readily available data. As we have already noted, an alternative is to use past trends to generate *TFP*. However, when trend *TFP* growth rises, as it did in the 1980s relative to the 1970s, the output gap measure tends to be biased. In order to compute the measure of the output gap defined in (10.5), we need estimates of equilibrium unemployment, u^* . There are two methods of producing such estimates. In the first, u^* is computed by backing it out of a Phillips curve. This method is used in Layard et al. (1991, table 16) and is now used by the OECD and the Bank of England to generate time series of u^* . There is no attempt to explain why u^* changes but it is simply estimated so that it is consistent with upward and downward movements in inflation, given the observed path of u . This method is not reliable for year-on-year changes but only for very long-term trends.

The alternative method of estimating u^* is first to estimate a complete model of the economy including all those factors which influence equilibrium unemployment and then to generate a reduced form equation which explains u^* in terms of these factors. This method is used in Andrews and Nickell (1982, table VII), Minford (1983, pp. 132–3 and table 1.2), and

Table 10.4 OECD measure of equilibrium unemployment (u^*) (based on the OECD standardized rate)

	u^*	u	$(u - u^*)$
80	7.0	6.4	-0.6
81i)	7.8	8.8	1.0
81	8.0	9.8	1.8
82	9.0	11.3	2.3
83	9.2	12.4	3.4
84	9.5	11.7	2.2
85	9.5	11.2	1.7
86	9.5	11.2	1.7
87	9.5	10.3	0.8
88	9.5	8.6	-0.9
89	8.8	7.2	-1.6
90	8.5	7.1	-1.4

Source: OECD, method described in Elmeskov et al. (1998).

Layard et al. (1991, table 16). It is superior to the first method described above but is more difficult to make operational because it is not possible to obtain data on all the factors which influence equilibrium unemployment.

In Tables 10.4 and 10.5, we present two sets of estimates of u^* based on the first method described above. These tend to be rising slowly in the first half of the 1980s, essentially because given unemployment in 1984-86, the estimate of u^* has to 'explain' why inflation is not falling very fast. However, as I noted correctly in my IEA piece, it is hard to see why u^* should have been rising throughout the first half of the 1980s. The key variables which tend to drive u^* are unions, benefits and taxes. In Layard et al. (1991), u^* measured this way rose from 6.1 per cent in 1974/80 to 6.6 per cent in 1981/87 (see table 18), so it was pretty flat in the late 1970s and early 1980s. In Minford (1983) u^* depends on union density, real benefits, payroll taxes and income taxes (including National Insurance contributions) (see table 1.2). In Table 10.6, we see what happened to these variables in the early 1980s. From the first quarter of 1981, all the relevant variables were stable or falling. Indeed, if we use the impact of these variables on u^* set out in Minford (1983, table 1.2), the fall in union density alone would cut u^* by around 1.3 million.

So, to summarize, using the first method of computing u^* , $(u - u^*)$ rose until 1983 Q3. But as we can see, the main factors influencing u^* were all pointing in the direction of further falls in u^* beyond 1983.

Table 10.5 Bank of England measure of equilibrium unemployment (u^*) (based on the OECD standardized rate)

	u^*	u	$(u-u^*)$		u^*	u	$(u-u^*)$
79i)	6.3	5.1	-1.2	83i)	9.5	12.3	2.8
ii)	6.7	5.0	-1.7	ii)	9.6	12.5	2.9
iii)	7.2	4.9	-2.3	iii)	9.7	12.6	2.9
iv)	7.6	4.9	-2.7	iv)	9.8	12.3	2.5
80i)	7.9	5.3	-2.6	84i)	10.0	11.9	1.9
ii)	8.0	5.9	-3.1	ii)	10.2	11.7	1.5
iii)	8.1	6.8	-1.3	iii)	10.2	11.6	1.4
iv)	8.2	7.9	-0.3	iv)	10.2	11.6	1.4
81i)	8.2	8.8	0.6	85i)	10.3	11.4	1.1
ii)	8.3	9.6	1.3	ii)	10.4	11.2	0.8
iii)	8.4	10.2	1.8	iii)	10.5	11.1	0.6
iv)	8.6	10.6	2.0	iv)	10.6	11.1	0.5
82i)	8.7	10.8	2.1	86i)	10.7	11.1	0.4
ii)	8.8	11.0	2.2	ii)	10.8	11.2	0.4
iii)	9.0	11.5	2.5	iii)	11.0	11.3	0.3
iv)	9.2	11.7	2.5	iv)	11.0	11.0	0.0

Source: Greenslade et al. (2003).

In order to compute the output gap, we see from (10.5) that we need data on working hours relative to their equilibrium value, $h - h^*$. These are available in Larsen et al. (2002) and are reported in Table 10.7. The series is detrended to eliminate the impact of the steady increase in part-time employees. Overall, the series suggests a bottoming out at the end of 1984. The scale of the effect is rather small (that is, a fall of 1.2 per cent from 1981 to the minimum). Looking just at manufacturing hours we see some bigger effects, thus the fall from 1981 Q1 to the minimum in 1983 is over 3 per cent. However, it is probably not surprising that the fall in other sectors of the economy is smaller. Using the data in Tables 10.5 and 10.7, we can compute the output gap from equation (10.5). This is presented in Table 10.8. On the basis of these data, it would appear that the output gap steadily became more negative from 1981 Q1 to 1983 Q3, a period of 2½ years. This indicates a considerable period of below trend growth after the 1981 budget. Furthermore, this is based on a method of computing u^* which relies on a simple specification of the Phillips curve. As we have seen, looking at the standard factors generating u^* , it is not easy to see why u^* should be rising significantly in the first half of the 1980s. However, even if we ignore this point, growth was below trend for a considerable period after the 1981 Budget. Thus the depression did indeed

Table 10.6 Variables influencing u^*

Benefits (married couple, 2 kids, combination of unemployment benefit, earnings related supplement and supplementary benefit including child benefit)			
	Replacement rate (benefits/wages) (%)	Nominal benefits (£)	Real benefits (Nov. 1980) (£)
Nov. 80	52.6	51.0	51.0
Nov. 81	53.0	54.9	45.6
Nov. 82	51.3	56.7	47.7
Nov. 83	49.2	60.3	48.3
Nov. 84	47.6	63.2	48.3
Nov. 85	47.3	66.6	48.2
July 86	45.4	67.4	47.2

Taxes

	Union density (%)	Total tax wedge (%)	Payroll tax rate (%)	Income tax rate (%)
79	52	49	15.3	14.8
80	51	50	15.6	15.0
81	49	53	16.9	15.6
82	48	53	16.3	15.9
83	47	52	16.5	15.9
84	46	51	16.2	15.5
85	45	50	15.6	15.3
86	44	50	15.1	15.0

Notes:

1. Benefits data are based on the benefit/tax regime along with the average earnings index and the RPI.
2. Union density is from the Centre for Economic Performance (LSE), OECD data set (attached to CEP discussion paper 502).
3. Tax data are those used in Layard et al. (1991).

deepen after 1981 Q1 as predicted in the letter written by the 364. And this process continued until at least 1983 which is in the period 1983–86 as I noted in Nickell (2006).

More General Remarks on the 1981 Budget

Tim Congdon saw the 1981 Budget as a watershed, the end of Keynesian demand management and the beginning of medium-term fiscal rules. I see it as one stop in the process of trying to find a framework for macroeconomic

Table 10.7 *Detrended hours worked per quarter*

	Hours	$(h - h^*)$ (% index)		Hours	$(h - h^*)$ (% index)
1981i)	440.6	0	1984i)	437.7	-0.7
ii)	441.6	0	ii)	436.9	-0.9
iii)	441.4	0	iii)	436.2	-1.1
iv)	440.7	-0.2	iv)	435.7	-1.2
1982i)	439.7	-0.3	1985i)	435.5	-1.2
ii)	439.1	-0.4	ii)	435.7	-1.2
iii)	438.8	-0.5	iii)	436.1	-0.9
iv)	438.9	-0.4	iv)	436.8	-0.7
1983i)	439.1	-0.4	1986i)	437.3	-0.6
ii)	439.1	-0.4	ii)	437.8	-0.5
iii)	438.9	-0.5	iii)	437.9	-0.5
iv)	438.4	-0.6	iv)	437.8	-0.5

Source: Larsen et al. (2002).

Table 10.8 *An 'output gap' index*

$-(u_t - u_t^*) + (h_t - h^*)$, (Table 10.2, Table 10.4) (using equation 10.5)			
1981i)	-0.6	1984i)	-2.6
ii)	-1.3	ii)	-2.4
iii)	-1.8	iii)	-2.5
iv)	-2.2	iv)	-2.6
1982i)	-2.4	1985i)	-2.3
ii)	-2.6	ii)	-2.0
iii)	-3.0	iii)	-1.5
iv)	-2.9	iv)	-1.2
1983i)	-3.2	1986i)	-1.0
ii)	-3.3	ii)	-0.9
iii)	-3.4	iii)	-0.8
iv)	-3.1	iv)	-0.5

policy under floating exchange rates which would allow the economy to grow at a rate reasonably close to its potential while having low and stable inflation. Of course, the simple recognition that such a framework was required is a significant achievement. Not surprisingly, a number of strategies were tried during the period from the beginning of the Conservative administration in May 1979 to the fixing of the exchange rate within the European exchange rate mechanism in October 1990. One set of facts is

striking. In mid-June 1979, RPI inflation was 10.6 per cent, Labour Force Survey (LFS) unemployment was 5.3 per cent, the official interest rate was 14 per cent. In September 1990, RPI inflation was 10.4 per cent, LFS unemployment was 7.1 per cent, the official interest rate was 15 per cent. Little change there. So a sceptical reader of the data might argue that little had been achieved in the intervening years. What went wrong during this period is the subject of considerable controversy. What is clear, however, is that an agreed, effective and stable structure for macroeconomic policy had not been found. This is hardly surprising. Given a situation where rapidly responding wage and price indexation was deeply embedded in both labour and product markets, operating within a coherent framework for macroeconomic policy would have been exceptionally difficult. This indexation structure meant that any relative price shock was going to feed through to general inflation very rapidly and generate instability in both the nominal and the real economy. Using an active monetary policy to keep inflation reasonably stable in this environment is extremely tricky and so it proved. In any event, the 364 economists claimed that the depression would deepen after the 1981 budget, and so it did.

Notes

1. I am again most grateful to Chris Shadforth for his valuable assistance.
2. Tim Congdon claims in the closing paragraph of Congdon (2006) that I contended that growth was beneath trend for five years from the 1981 Budget. I contended no such thing, having said that growth was below trend from the 1981 Budget to *some time* during the period 1983–86.
3. Note, employment is equal to the population of working age times the product of the participation rate and one minus the unemployment rate. Symbolically, we have

$$N = POP (1 - ia) (1 - u) \quad (10.6)$$

or, in logs,

$$n = pop - ia - u. \quad (10.7)$$

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IV. THE 364 WERE OVER THE TOP: A REPLY TO PROFESSOR NICKELL'S REPLY, BY TIM CONGDON – PUBLISHED IN *ECONOMIC AFFAIRS* (LONDON: IEA), DECEMBER 2006 ISSUE

I am grateful to Professor Nickell for his reply, which – if I may say so – is a rigorous and scholarly piece of work. In my opinion, it involves a major climbdown from his original paper. We are now largely in agreement about the key facts in the period. But we remain a long way apart in our interpretations of those facts and in the rhetoric justified by the interpretations.

The letter from the 364 did not predict a date at which the so-called 'depression' would end. The 364 seem to have thought that, if 'monetarist policies' were maintained, falling output or beneath-trend growth would continue indefinitely. The length of the period of falling output and/or beneath-trend growth after the 1981 Budget is therefore the essence of the debate. Since output stopped falling almost immediately after the Budget, the dispute is narrowed down to the length of the period of beneath-trend growth. In his original paper Nickell said that 'the depression deepened until somewhere between 1983 and 1986'. I challenged him to produce 'quarterly figures for the equilibrium rate of unemployment and the output gap' to substantiate his judgement. I must thank him for having done that, as the result is a drastic clarification of the matters under discussion.

In Table 10.9 I compare the quarterly estimates of the output gap prepared at Lombard Street Research, under my direction, with Nickell's in his reply. They are somewhat different in terms of *levels*, possibly because the Lombard Street Research estimates were not adjusted for hours of work in the same way as Nickell's. But – for the purposes of our debate – it is the *changes in the levels* that are critical since it is these that determine whether growth was above or beneath trend. (A negative figure indicates beneath-trend growth and a positive figure above-trend growth.)

Nickell's number and my own are very close together for most of the 1981–86 period. We agree that beneath-trend growth continued for at least

Table 10.9 *A comparison of Congdon's and Nickell's views on the output gap and the growth path, 1981–86*

		Level of output gap, % of trend output		Change in output gap, as % of trend output*	
		Lombard Street Research estimates, prepared under Congdon's direction	Nickell's May 2006 estimates	Lombard Street Research estimates, prepared under Congdon's direction	Nickell's May 2006 estimates
1981	Q1	-2.9	-0.6		
	Q2	-3.9	-1.3	-1.0	-0.7
	Q3	-4.4	-1.8	-0.5	-0.5
	Q4	-4.7	-2.2	-0.3	-0.4
1982	Q1	-4.8	-2.4	-0.1	-0.2
	Q2	-4.8	-2.6	0.1	-0.2
	Q3	-4.9	-3.0	-0.1	-0.4
	Q4	-4.9	-2.9	0.0	0.1
1983	Q1	-4.5	-3.2	0.4	-0.3
	Q2	-4.3	-3.3	0.2	-0.1
	Q3	-3.9	-3.4	0.4	-0.1
	Q4	-3.4	-3.1	0.5	0.3
1984	Q1	-3.2	-2.6	0.3	0.5
	Q2	-3.0	-2.4	0.1	0.2
	Q3	-3.1	-2.5	-0.1	-0.1
	Q4	-3.2	-2.6	-0.1	-0.1
1985	Q1	-3.2	-2.3	0.1	0.3
	Q2	-2.7	-2.0	0.5	0.3
	Q3	-2.2	-1.5	0.5	0.5
	Q4	-1.8	-1.2	0.4	0.3
1986	Q1	-1.5	-1.0	0.3	0.2
	Q2	-1.2	-0.9	0.3	0.1
	Q3	-0.7	-0.8	0.5	0.1
	Q4	-0.1	-0.5	0.6	0.3

Notes: * These numbers are quarterly changes. They are *not* at annualized rates. So – if the change in the output gap in a quarter was minus 0.2% – the annualized rate of growth was 0.8% beneath trend.

Tim Congdon would like to thank Stewart Robertson, now senior economist at Aviva, and Simon Ward, now chief economist at New Star Asset Management, for their help in preparing the Lombard Street Research output gap series.

three quarters after the first quarter 1981; we also agree that (if the effects of the miners' strike in 1984 are removed) growth was at an above-trend rate from Q4 1983 to the end of 1986. The remaining period of contention is the seven quarters from Q1 1982 to Q3 1983. Nickell believes that the

output gap became more negative – by about 1 per cent of trend output – in these seven quarters, whereas the estimates produced by Lombard Street Research suggest that the gap became less negative – also by about 1 per cent of trend output.

I am not going to try to eliminate the residual disagreement. Let us instead suppose – for the sake of discussion – that Nickell's numbers are right. According to them, the rate of growth was on average 0.7 per cent (at an annual rate) beneath trend in the still controversial seven quarters. But how should these quarters be characterized? It is a regrettable fact that output does not rise in a straight line, at a constant rate, in any known economy. There are wiggles and jiggles around the trend, and any sensible person would accept that growth is at trend when it occurs inside a corridor around the exact trend figure. In my comment I proposed: 'On the reasonable view that output wobbles all the time around its growth path, a band of growth $\frac{1}{2}$ per cent either side of a $2\frac{1}{2}$ per cent central number could be deemed "trend".' I then concluded, using my own numbers, that, 'every year from 1982 to 1988 recorded trend or above trend growth. The 364 were plain wrong – and in his defence of the 364 Nickell remains plain wrong today'.

Assuming that Nickell accepts my definition of a trend corridor, we could keep on squabbling. To be precise, we could keep on squabbling about 0.2 per cent of output per quarter!¹ I submit that we are pretty much agreed about 'the truth', which is summarized in Box 10.1. No doubt Nickell and I could quibble until kingdom come about the exact words, phrases and decimal points that represent 'this truth', but bluntly – in terms of fact – the debate is over.

As I said at the start, Nickell's numbers involve a major climbdown. In his original paper he said that the depression deepened 'until somewhere between 1983 and 1986'. Despite the second footnote in Nickell's reply, I was therefore justified in reviewing the entire 1981–86 period in my criticism of his claims. In his detailed and specific quarterly numbers it is clear that Nickell has given up three years of the 'depression'. His new position is that 'the depression deepened until the middle of 1983', as the output gap was – on his figures – most negative in Q3 1983. We must remember that the length of the period of beneath-trend growth is the essence of the debate. Given the context, 'somewhere between 1983 and 1986' has a very different connotation from 'the middle of 1983'.

At this stage I want to make two points linking the Congdon–Nickell exchange to the precise contents of the letter from the 364. The first relates to the 364's views on why 'the depression' would 'deepen'. The wording of the letter – with its reference to the 'deflating' of 'demand' – implies that output was expected to be held back because of weakness in demand. So,

BOX 10.1 A SUMMARY OF CONGDON'S AND NICKELL'S VIEWS ON THE UK ECONOMY, 1981–86

<i>Period</i>	<i>Description of economy</i>
1981 Q2 to 1981 Q4	Output stopped falling, but growth was at a beneath-trend rate.
1982 Q1 to 1983 Q3	Trend growth, if growth is accepted as being at trend within a narrow corridor around the exact trend rate, although Nickell believes growth was still significantly beneath trend until 1982 Q3 whereas Congdon's estimates suggest that the negative output gap became smaller in the seven quarters.
1983 Q4 to 1986 Q4	Above-trend growth, if negative effect of miners' strike on output in second half of 1984 is removed.

in addition to tracking output (and making estimates of the output gap), it is necessary to check what happened to demand.

Since our disagreement on the length of the 'depression' is now confined to the seven quarters to Q3 1983, the question becomes 'what happened to demand in that seven-quarter period?' Data on the growth of domestic final expenditure in real terms are available in the website of the Office for National Statistics. They show domestic final expenditure (in constant 2002 prices) was £146.4 billion in Q4 1981 and £156.9 billion in Q3 1983, giving an annualized rate of increase of just above 4 per cent. This is undoubtedly an above-trend figure. Nickell may or may not be right that the growth of *output* was significantly beneath trend in the seven quarters. He is plainly wrong if he is claiming – on behalf of the 364 – that the growth of *demand* was beneath trend.

The second point arises because the 364 alleged that official policies 'would erode the industrial base of our economy'. If this remark means anything, it must be that the UK's competitiveness would be undermined by *slow* productivity growth. But – in trying to rescue something of his original debating position – Nickell had to recognize that one of the main reasons for the rise in unemployment until 1986 was not demand weakness, but the unusually *rapid* growth of productivity. In fact, in the six years from Q4 1980 output per filled job in manufacturing climbed at an

annual compound rate of 6.0 per cent, whereas in the six years between the cyclical peaks of Q2 1973 and Q2 1979 output per head in manufacturing rose at a compound annual rate of only 1.1 per cent. Productivity growth in UK manufacturing in the early and mid-1980s may have been the fastest ever recorded. Unfortunately, that did lead to heavy job losses in some sectors, but it was vital in restoring the UK's long-run competitiveness. Would the 364 have preferred a continuation of the productivity stagnation of the 1970s?

My last comment is on rhetoric and tone. It turns out that – when we check each other's conceptual frameworks and dig down into the figures – Nickell and I are not a million miles apart. But Nickell keeps on using the exaggerated and emotive word 'depression' to characterize the years from 1981 to 1983, sticks to his bluff that the 364 were right all along, and finally tries to change the subject by making a song and dance about the rise in inflation in the final years of the Thatcher premiership. The explanation for all the huffing and puffing is that – as he knows – the reputation of Keynesian economists in British universities was badly damaged by the sequel to the 1981 Budget. My plea to him, and to as many of the 364 as are still willing to listen, is: 'Dispense with the rhetoric, and be careful with facts and figures. Above all, open your minds to the possibility that you were wrong because your underlying model – the income-expenditure model of the textbooks – is an inadequate representation of a modern economy because it has no meaningful role for monetary influences on asset prices and demand.'

The 364 were over the top, not the 1981 Budget.

Note

1. If this is not immediately apparent, the negative output gap increased on average by 0.17 per cent per quarter (that is, at an annualized rate of 0.7 per cent) in the seven quarters to Q3 1983, according to Nickell. 0.7 per cent is 0.2 per cent more than 0.5 per cent, which (I suggest) would be within a trend corridor.