Public Talks

Unemployment and the Tax Wedge

Kensington Town Hall, London

8th September 1981

Public Talks

Unemployment and the Tax Wedge

8th September 1981

"Unemployment... is the specific social disease of western civilisation in our time." – from *The Times* of 23rd January 1943.[1]

The social disease of prolonged mass unemployment has re-established itself in this country after an absence of forty years.

How did this come about?

Some highly distinguished macroeconomists, and their number includes advisors to former governments, place the blame firmly on the present government. They call for an immediate scrapping of the medium term financial strategy which, they assert, is based on an "over-simplified view of how the economy works."

They propose an alternative policy of reflation – that is to say, they propose that the government should spend its way out of the present difficulties.

Others, only marginally less distinguished, reject the arguments for reflation and the theories from which they stem. The academic supporters of the medium term financial strategy contend that monetary policy is working successfully to reduce the rate of inflation and, in the words of Professor Rose of the London Business School, argue that: "the main direct cause of the rise in unemployment... was the 22% increase in wages in the 1979/80 pay round."

To this is added: "Britain's history of indifferent management, union restrictive practices, and structural decline, culminating in a reduction of excess manning that was long overdue."

The academic trench warfare in this particular sector has rumbled on for a number of years. Both sets of arguments include

1 Quoted from the articles on *Planning Full Employment*, of January 1943.

some of the truth, but although there has been changing of sides amongst the rank and file there is as yet no sign of any movement towards agreed conclusions. I reviewed the issues and implications of this particular academic dispute in three earlier talks, and they are now available in recorded form, so I do not intend to trudge through the same smoke again – tonight, I shall be presenting evidence rather than reviewing conflicting theories. In doing this I shall be following the established procedure of the scientific method which begins with observation.

As a starting point, it is observable that British experience of unemployment over recent decades differs in at least one fundamental from the experience of most other western developed nations – in this country unemployment has been showing a rising trend for the past twenty-five years.

As an example, the chart in Figure 1 shows unemployment rates over the past 25 years as officially recorded in the United States, and also in this country, the United Kingdom. The solid green line shows registered unemployment from 1956 through to 1974, and the solid red line shows registered unemployment from the year 1975 to 1980, with the 20-year trend lines in black.

Both countries suffered an upsurge of unemployment following 1974, and this is continuing. Some possible explanations for this are the world energy difficulties and the deep recession in world trade. Those who wish to add politics must remember that for most of the time in the U.S.A. there was a Democratic Administration and a Labour Administration in this country.

More important are the black trend lines based on experience in the respective countries over the twenty years prior to the present world recession. In the U.S.A. the line is near horizontal. There have been good years and bad years but on average unemployment has tended, if anything, to decline. In this country the line slopes definitely upwards. As the years go by, the good years are not so good, and the bad years become progressively worse. On average, unemployment in this country is definitely rising.

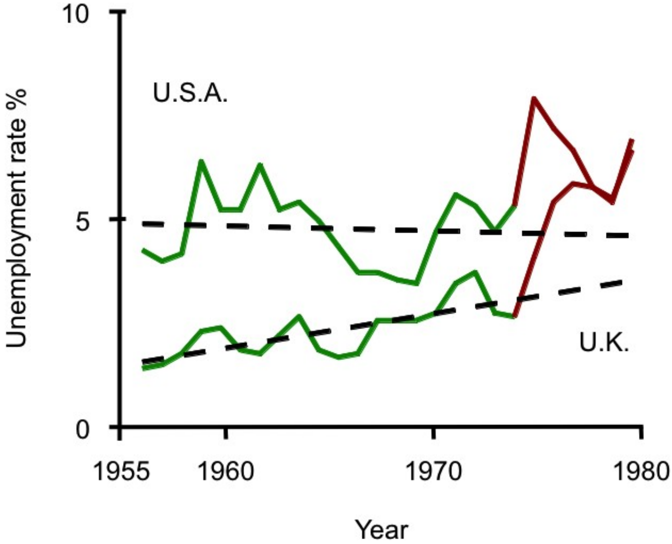

Figure 1: Unemployment rates, 1956 to 1980

Now the implication of the evidence shown on this chart is that whilst in the United States, as in most other western countries, it is reasonable to expect that in due course there will be a recovery, which will lead to unemployment returning to levels no worse than those of the sixties, in this country it would be foolish on the basis of past experience to hold such hopes. We have been proceeding along the road to mass unemployment for the past quarter of a century. Present experience is no passing phase; official estimates show a measurable rising trend of significant proportions, a trend well established before our immediate difficulties arose.

Ignoring the energy crisis, the deep world recession, Mr. Healey's imposed monetary policy,[2] this government's medium term financial strategy – ignoring all of this – the trend established in the twenty years prior to 1975 produces an unemployment rate

2 In 1976 the UK government requested a loan of £2.3 billion from the IMF. The terms of the loan required the Chancellor of the Exchequer, Mr Denis Healey, to impose reductions in public expenditure, and monetary controls.

for 1981 four times that of 1956. On the basis of past experience we can expect that any boom which might occur in the mid-eighties will still leave unemployment well in excess of 1 million.

How did we get to this road leading to prolonged mass unemployment? What is keeping us to this particular direction? That it is not a common experience implies that the forces are home-produced. That our experience is not shared by the United States implies that technological advance – such as the micro-chip revolution – is not a significant causative factor. Why should the technological revolution be a cause of rising unemployment in this country and not in the United States, which is in the van of the advance? Let us consider first the basic conditions common to all western developed countries.

A characteristic of all industrialised economies is the employer-employee relationship. The overwhelming majority of the working population are employees who, in order to earn their living, must reach an agreement with an employer. For the most part the employers are firms who can offer employment providing only that it is profitable for them to do so at the current cost of labour. Thus as a first hypothesis we may state that if mass unemployment persists then it is because it is unprofitable for firms to offer a greater volume of employment at the current cost of labour.

Profit in this context is the firm's disposable net income and the profit margin is the percentage slice of the 'national cake' that accrues to firms in any given time period. Whether this profit arises as a result of 'the exploitation of the working classes by the capitalist classes' or from some other cause is not an issue of immediate importance to this enquiry. We happen to live, for better or worse, in a country where private sector firms cannot for long continue to offer employment unless it is profitable for them to do so, and where even public corporations are not wholly exempt from this discipline.

In the contemporary British economy profit is the major source of investment funds. If a British firm is to keep abreast of the technological revolution and remain competitive then it must achieve a profit margin sufficient to finance the necessary new investments. For the economy as a whole, if the profit margin is insufficient to finance new investment on the required scale then firms will lose their competitive edge, profits will decline further and a contractionary spiral will become established.

Thus, given the contemporary British conditions it is reasonable to expect that there will be a close association between the after-tax profit margin and the unemployment rate; and this is confirmed by the evidence shown on this second chart, in Figure 2.

Before proceeding further, however, let me just explain a few of the techniques used when comparing economic time series.

First, one assumes one series to be the dependent variable. In this and the following charts I have assumed the unemployment rate to be the dependent variable, and in all cases it is shown by a continuous black line.

The measurements relating to unemployment are also shown in black. Along the bottom horizontal axis are measured the years and along the right-hand vertical axis, the percentage unemployment rate. The unemployment rate is a twelve-month average, in this case covering a period beginning in March of one year through to February of the following year.

Second, one assumes the other series to be the independent variable – that implies that it may be the causative factor carrying the active force. In this and the following charts the independent variable is shown by a continuous red line. The measurements relating to the independent variable are also shown in red. Along the top horizontal axis are the calendar years, with the percentage slice of the national cake along the left-hand vertical axis.

Third, between all the variables I shall be showing there is a time lag. For example, when the shunting engine pushes the truck next to it there is a ‘bang bang bang’ down the line, until the last truck rolls off into the siding. There is a time lag between the initial force and the result.

Again, when you are stuck at the end of a queue at traffic lights it is reasonable to assume that cars move forward when the lights are red; a dangerous assumption to continue to hold when you get to the top of the queue, and an example of a varying time lag.

In order to better show the relationship, the measurements are adjusted along the horizontal axes for the time lag, and in this case the profit margin for 1960 is related to the unemployment rate for March 1961 to February 1962 – a time lag of a little over a year. The chart shows the relationship between the private sector profit margin and the unemployment rate for the 20 years from 1960 to 1979. Prior to 1960 the profit figures are not strictly comparable. The relationship is negative – that is, a declining profit margin is associated with a rising rate of unemployment. To show this better, the right-hand scale is reversed.

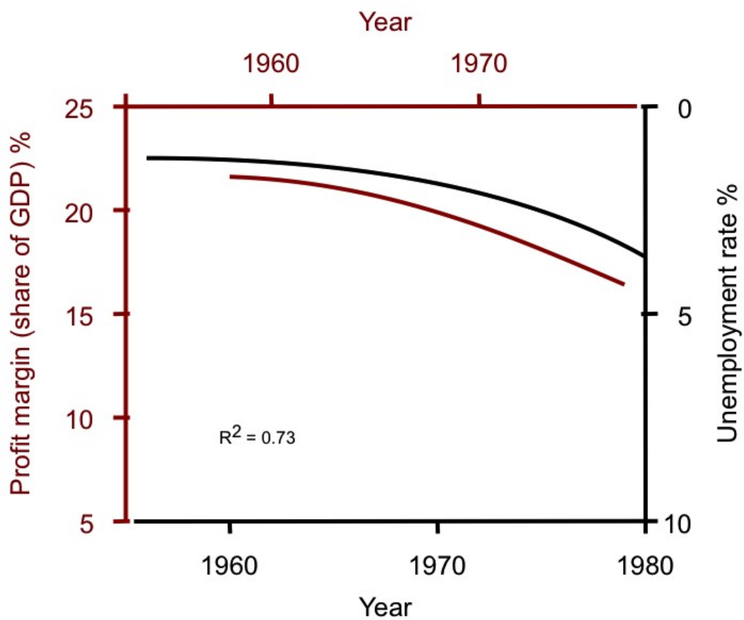

Figure 2: Profit margin and unemployment, 1960 to 1979

Clearly there is a significant negative relationship and for the mathematically minded the coefficient of determination works out at 0.73.[3]

Further, since a change in the profit margin precedes a change in the rate of unemployment by more than a year, this suggests a direction of causation from profits to unemployment. In other words the statistical evidence illustrated on this chart suggests that the rate of unemployment in any year is to a large extent determined by the private sector profit margin of the previous year.

In isolation this kind of statistical evidence is open to many interpretations. For example it could be interpreted as a reflection of indifferent management over the years and thus used to support Professor Rose's contention. Such interpretations enjoy a certain amount of credence since whilst indifferent management may be shown to apply in particular cases it cannot be quantified in general. It appears to the general public, untrained in the scientific method, that attributing the cause to indifferent management is consistent with indisputable evidence. It has to be admitted that there are indeed cases, perhaps too many cases, of indifferent management in British industry. However, the figures I have presented are drawn from the national account estimates and in the national accounts the private sector profit margin is in the nature of a residual item determined largely by the slice of the national cake appropriated by general government tax revenue.

It follows, as there is a significant negative relationship between profit margin and unemployment, and a significant negative relationship between the tax slice and profit margin – that is in both cases as one expands the other contracts – then also there will be a significant positive relationship between the tax slice and the unemployment rate – they will both tend to rise and fall together.

3 The coefficient of determination is a measure of how well the relationship fits the recorded data. A value of 0.5 would indicate that only half of the data points are explained by the proposed relationship, whereas a value of 1.0 would imply that all the data points are explained and that the relationship can be used to forecast future outcomes with a high degree of confidence.

The next chart, in Figure 3, illustrates the positive relationship between the percentage slice of the national cake appropriated by tax revenue, from 1955 to 1979, and the rate of unemployment, lagged by eleven months.

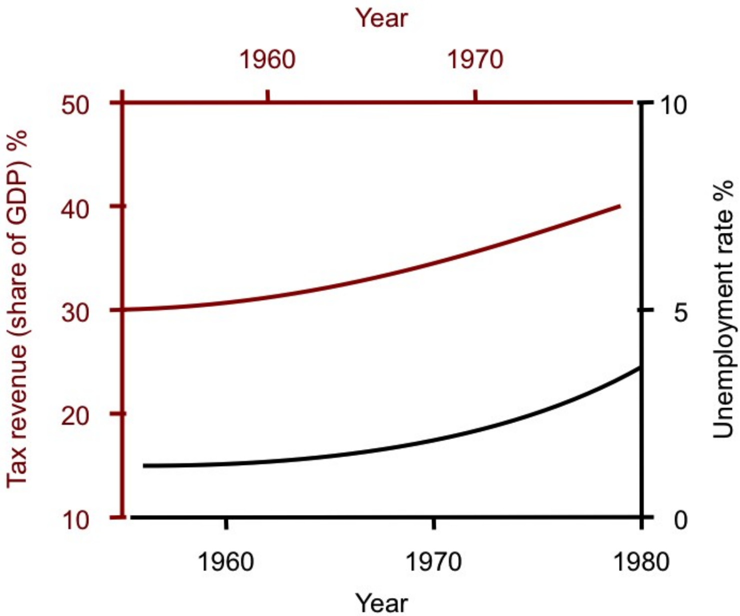

Figure 3: Tax revenue and unemployment, 1955 to 1979

From the evidence plotted on this chart it is possible, by regression analysis, to 'explain' over two-thirds of the increase in unemployment since 1956 in terms of the increased slice of the national cake appropriated by general government tax revenues.

Further, since the change in tax revenues precedes the change in unemployment by 11 months, the implication is that the direction of causation is from tax to unemployment. The change in taxes enacted by Parliament one year is a significant factor determining the level of unemployment in the following year.

Admittedly there are many causative factors which contribute to unemployment at any given time, such as indifferent management, but the evidence shown on this chart suggests that taking one year with another some two thirds of unemployment is attributable to taxation, and taxation, unlike most other factors, is wholly within the control of government. Do we appreciate the evidence shown on this chart as providing a general explanation, applying to the British economy as a whole over the past quarter of a century?

So far I have only developed one of the two possible lines of enquiry stemming from the original hypothesis that "If mass unemployment persists then it is because it is unprofitable for firms to offer a greater volume of employment at the current cost of labour." An investigation of the profit element has indicated the possibility that general tax revenue may be a significant factor determining unemployment in this country – but what of the cost of labour?

The cost of labour to an employer is the sum he has to pay out as a direct result of entering into a contract of employment with an employee. In this country today just about all contracts of employment, outside of the black economy, attract taxation and this tax drives a wedge between what the employee receives – his take-home pay – and what the employer pays out –his labour cost.

The difference between take-home pay and the employer's labour cost is the pay bargain tax wedge, which at present consists of Pay As You Earn (PAYE), the employees' social security tax, the employers' social security tax, and the current National Insurance surcharge.

The existence of the pay bargain tax wedge is a source of considerable confusion as to what is meant by the term wages. Does it refer to what the employee receives? Does it refer to what the employer pays out? Does it refer to some notional sum lying between these two that the Inland Revenue use as a basis for assessing income tax? To avoid these confusions I will avoid using the term wages. What the employee receives I will call take-home pay. What the government appropriates I will call the pay bargain tax wedge. What the employer then pays out – which includes both take-home pay and the pay bargain tax wedge – I will call the employers' labour cost.

Although the nominal sum paid out as labour cost is of importance to firms, of greater importance when deciding on the volume of employment they can profitably offer is the labour cost as a proportion of the proceeds they can expect as a direct result of offering a certain volume of employment. A measure of this for the economy as a whole is the percentage slice of the national cake represented by total labour cost. If our hypothesis is valid it is the labour cost slice that will be a factor in determining the rate of unemployment in the economy as a whole.

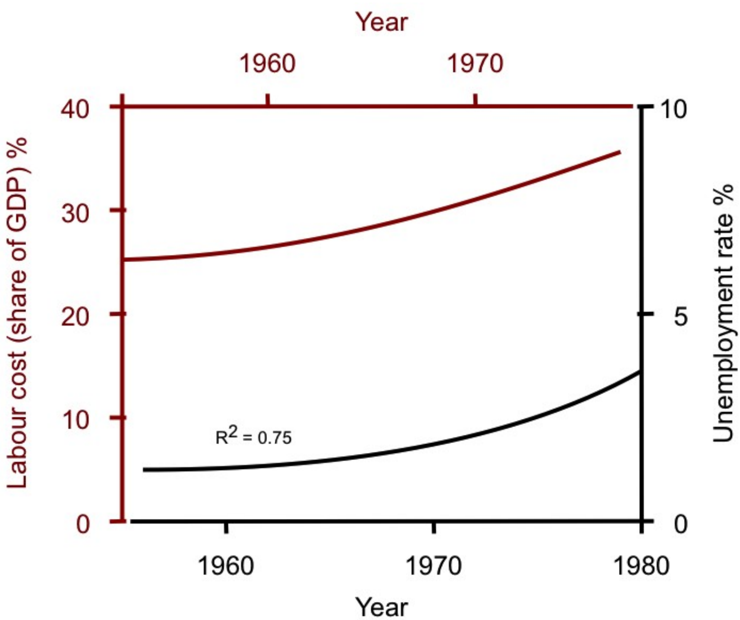

Figure 4: Labour cost and unemployment, 1955 to 1979

As shown in Figure 4, there is a close positive relationship between labour cost as a slice of the national cake – the red line –

and the rate of unemployment. Further, since labour cost precedes unemployment by much more than a year, this suggests a direction of causation from labour cost to unemployment rate. For the mathematically minded, the coefficient of determination is 0.75.

This means that over the past 25 years some three quarters of British unemployment can be 'explained' in terms of an expanding labour cost slice of the national cake. For policy makers this chart gives rise to a very important question – does the pay bargain tax wedge tend to reduce take-home pay, or to inflate the employers' labour cost?

Employees know as a matter of experience that an increase in either income tax, or their national insurance contributions, has an immediate impact on their pay packet.

Employers know that a change in their contributions or in the National Insurance surcharge will have an immediate impact on their labour costs. But what happens eventually? What happens at the next wage round?

Adam Smith concluded that all taxes assessed on employees' income are shifted by the employees onto their employers. In a paper published in January 1973 – *Fanfare to Action*[4] – I showed this two hundred year old conclusion to be confirmed by post-war British experience. Since 1973 the evidence has been accumulating from a number of countries beginning with research results from Canada in the Economic Journal of 1975.

In 1978 the OECD admitted "that labour unions do attempt to shift income tax increases forward onto higher money wages, and net of tax wage bargaining seems to be a rather common phenomenon in all OECD countries, except France." The reason why France is the exception is that the French national accounts do not give the required detailed information. So we see that the current experience of most western developed nations is consistent with a theory established in the eighteenth century by Adam Smith.

---

4 *Fanfare to Action: Income Distribution as a Cause of Inflation*, published by the Economic Study Association in 1973.

Employees shift all taxes imposed upon their income onto their employers, and this must mean that for the economy as a whole a change in the pay bargain tax wedge will be reflected in a change in labour costs rather than by a permanent change in take-home pay. Adam Smith took his analysis a stage further and argued that taxes imposed upon or shifted onto employers would be shifted forward, yet again, onto prices. This leads to the conclusion that in the final analysis an increase in the pay bargain tax wedge will be a cause of rising prices rather than unemployment.

However, in this matter it would seem that the twentieth century employee is not so easily fooled. It would seem that the possibility of employers raising prices to counter rising labour costs is fully anticipated in modern pay bargaining and as a result increases in the pay bargain tax wedge are associated with both rising prices and more unemployment – this tax shifting process is at the root of the phenomenon known as ‘the wage-price spiral’.

So by deduction from Adam Smith’s analysis and twentieth century evidence, we are led to expect a positive relationship between unemployment and the pay bargain tax wedge.

This final chart, Figure 5, shows in a simple way the direct relationship between unemployment and changes in the pay bargain tax wedge. They rise and fall together given a time lag of 12 to 18 months. Over the whole twenty-five year period over 80 percent of British unemployment can be ‘explained’ in terms of the pay bargain tax wedge. Over the most recent fifteen years the percentage rises to over 90 percent. For the mathematically minded the coefficient of determination has a value of 0.94.

As I said at the beginning of my talk my concern tonight is the presentation of evidence. My reason is that if one is to pursue macroeconomics as a science, then one must adhere to the scientific method, and this method begins with observation. These observations may then be generalised into a theory which must be re-checked against further observations before valid policy implications can be drawn.

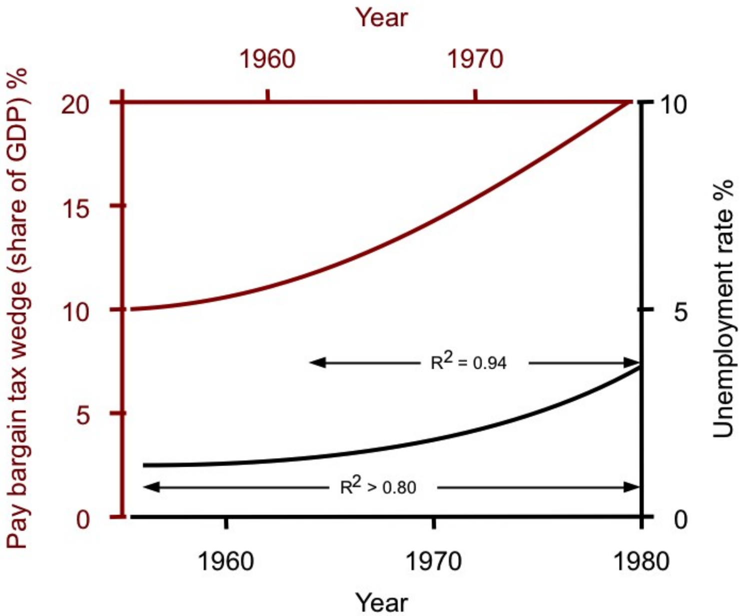

Figure 5: Pay bargain tax wedge and unemployment rate

The evidence shows that the return of mass unemployment to this country is not a temporary phase resulting from some chance coming together of international forces largely beyond our control.

This may be so for many other countries but it is not so for this country. The evidence shows that we have been proceeding along the road towards mass unemployment for twenty-five years. Monetary policy and recent international events may have been instrumental in our arriving sooner rather than later, but what matters now is that we have arrived – mass unemployment is today a 'fact of experience'.

Any explanation of unemployment in Britain today must take into account that we have been travelling towards this position for a very long time. The evidence I have presented to you tonight is largely ignored by British macroeconomists of all factions, by politicians of all parties, and it has been ignored by successive governments and their advisory staffs.

The evidence shows, however, that the rising trend of British unemployment over the past 25 years is closely associated with the slice of the national cake appropriated by the government as tax revenue. Since 1955 this slice has been increased from around 30 percent to the present 40 percent.

More, the evidence shows the level of unemployment to be very closely associated with the methods used to increase the tax slice. Since 1955 the pay bargain tax wedge has been doubled and the increase accounts for the whole of the increase in general taxation.

That mass unemployment has returned to this country should not be a matter for surprise, for successive British governments have piled all tax increases onto employment. Employees, it would appear, have not priced themselves out of jobs by excessive pay claims but they have been taxed out of jobs by irresponsible politicians and their advisors. In most cases these irresponsible tax policies have been put over to the accompaniment of cant about spending to maintain full employment.

If we are to move away from mass unemployment towards a "high and stable volume of employment" then the evidence suggests that we must first change the tax policies that have been pursued by former governments and continued by this government. In particular, we must reform the methods by which tax revenue is raised.

During the past twenty-five years over 80 percent of the rise in British unemployment can be explained in terms of an expanding pay bargain tax wedge. Over the past ten to fifteen years over 90 percent of unemployment can be explained in these terms.

The evidence suggests that by appropriate tax policies government could within a very few years create conditions in which more than two million of the present three million unemployed would have jobs. Having reached such a position it may then become possible to carry through the reforms necessary for tackling the balance of the problem.

Finally there are those macroeconomists who would reject the evidence that I have presented tonight on the grounds that it is "measurement without theory." To this I reply that according to the established procedure of the scientific method observation comes first.

Tonight I have attempted no more than this first stage. However the evidence I have presented tonight is not in fact "measurement without theory". For those of you who wish to know the theory and the policy implications to be drawn from that theory the E.S.A. have arranged a seminar series beginning on Tuesday 29th September.

Prolonged mass unemployment is for Britain in the 1980s a self-inflicted social disease. We are suffering today from 'statutory unemployment'. Statutory in the sense that it is largely the direct result of enactments by successive Parliaments at Westminster; statutory in the sense that the trend can be reversed just as easily and with greater speed than it was first established.

It is this fact that offers all of us in this country a golden opportunity for a prosperous future.

Sources

The unemployment rates shown in Figure 1 are based on official data published by the Bureau of Labor Statistics (BLS) in the United States and the Office of National Statistics (ONS) in the UK.

The unemployment rate shown in Figures 2 and 3 is a twelve month average, in this case covering a period beginning in March of one year through to February of the following year. The profit margin and the total tax revenue are calculated from ONS data as a share of GDP, rather than as a share of Net National Product (NNP). In the UK, the NNP may be taken as approximately 85% of GDP.

The total labour cost shown in Figure 4 is the sum of take home pay and the pay bargain tax wedge as a share of GDP.