

EUI Working Paper RSC No. 96/30

Unemployment:  
A Distributional Phenomenon

PAUL ORMEROD

EUI WORKING PAPERS

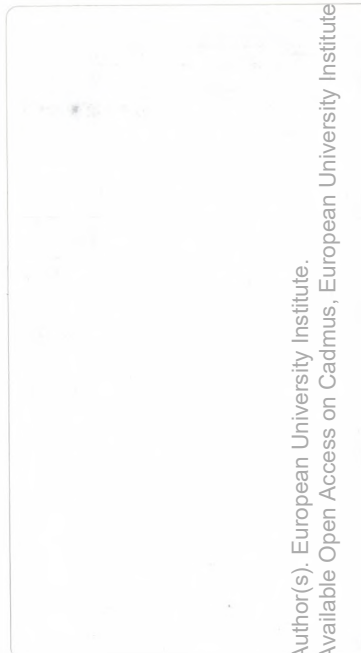


EUROPEAN UNIVERSITY INSTITUTE

EUROPEAN UNIVERSITY INSTITUTE



3 0001 0026 7980 3



EUI Working Paper RSC No. 96/30

Ormerod: *Unemployment:  
A Distributional Phenomenon*

WP  
321.0209  
4 EUR



The Robert Schuman Centre was set up by the High Council of the EUI in 1993 to carry out disciplinary and interdisciplinary research in the areas of European integration and public policy in Europe. While developing its own research projects, the Centre works in close relation with the four departments of the Institute and supports the specialized working groups organized by the researchers.



**EUROPEAN UNIVERSITY INSTITUTE, FLORENCE**

**ROBERT SCHUMAN CENTRE**

**Unemployment:  
A Distributional Phenomenon**

**PAUL ORMEROD**

Post-Ortodox Economics and University of Manchester

**EUI Working Paper RSC No. 96/30**

**BADIA FIESOLANA, SAN DOMENICO (FI)**

**All rights reserved.**  
**No part of this paper may be reproduced in any form**  
**without permission of the author.**

**© Paul Ormerod**  
**Printed in Italy in June 1996**  
**European University Institute**  
**Badia Fiesolana**  
**I – 50016 San Domenico (FI)**  
**Italy**

## **Robert Schuman Centre**

### **Programme in Economic Policy**

#### *The Working Papers series*

The Schuman Centre's Programme in Economic Policy provides a framework for the presentation and development of ideas and research that can constitute the basis for informed policy-making in any area to which economic reasoning can make a contribution. No particular areas have been prioritized against others, nor is there any preference for "near-policy" treatments. Accordingly, the scope and style of papers in the series is varied.

Visitors invited to the Institute under the auspices of the Centre's Programme, as well as researchers at the Institute, are eligible to contribute.



## 1. Introduction<sup>1</sup>

The aim of this paper is to examine the relationship between the distribution of income and unemployment. The evidence presented is mainly cross-sectional, examining changes across the OECD economies in the past twenty years or so compared to the 1960s and early 1970s. Section 2 discusses briefly the data set used. Section 3 examines the relationship between profitability and economic growth. Section 4 investigates the connections between growth and unemployment, and section 5 considers aspects of the distribution of income within the share of labour in national income. Section 6 considers the policy options.

## 2. The data set

Data are available over the 1960-92 period for the following 22 countries in the OECD: Australia, Austria, Belgium, Canada, Denmark, France, Finland, (West) Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.

Of the OECD countries, GDP per capita is far lower in Turkey than elsewhere, being on Maddison's estimates just over \$4,000 in the early 1990s compared to just over \$10,000 in Greece and \$11,000 in Portugal, the next poorest OECD economies. Empirical studies of growth may not point to many firm conclusions, but a consistent finding is that models estimated on OECD country data usually give different results to those estimated on developing country data ( see Mankiw *et.al.*[1] for an example of this, and Reynolds [2] for some good reasons why this should be the case ). Given that Turkey is very clearly in the per capita income range of developing countries, it was excluded from the outset from the data set used in this paper.

Greece was also excluded, for different reasons. Greek economic data for the 1960s appears to exhibit more than the usual amount of uncertainty associated with such data, and the initial process of data screening suggested that Greece was a distinct outlier. Portugal, too, was almost

---

<sup>1</sup> I am grateful to participants at the conference for comments on a draft of the paper given at the conference on Unemployment and Policies Towards It at the European University Institute, Florence, April 1996, and in particular to Bernard Walters

excluded on the same grounds - for example, unemployment is estimated at 2.5 per cent in each year between 1963 and 1973. But although, to anticipate, Portugal is often an outlier in the results, it was decided on balance to keep Portugal in the data set. In summary, cross-sectional data was used on the above OECD countries except Greece and Turkey, giving a sample of 20 countries in all.

### 3. Profitability and growth

A large literature has developed in the past decade which re-visits the question of the determinants of economic growth. Maddison [3] gives a clear and concise summary of the key articles. Despite the enormous amount of intellectual effort expended, however, no clear conclusions have emerged. Levine and Renelt [4], for example, carried out a sensitivity analysis of empirical results and stated that 'almost all results are fragile [with respect to] small changes in the conditioning information set'. Boltho and Holtham [5] argue that endogenous growth models fail 'unambiguously to dominate their predecessors'.

Almost all of the empirical work on economic growth takes place within a neo-classical framework. The policy implications of the recent literature, with its emphasis on externalities, are different to the original Solow neoclassical formulation of the process of growth, in which policy has no long run effect on growth. But, whatever factor is postulated to be the source of externalities and increasing returns, the literature is essentially concerned with trying to identify empirically the *ex post* contributions of a range of factors to the observed rate of growth. In this view of the world, the role of profits in capitalism is effectively non-existent. Savings, for example, are translated into investment and hence into growth in an effortless way, regardless of the level of profitability.

The classical economists such as Smith, Ricardo and Marx placed great emphasis on profits as the driving force of economic change. An elegant statement in more modern times is by Goodwin [6], in which the sustainable growth rate in the medium term depends proximately upon the share of investment in national income, which in turn is driven explicitly by the share of profits in national income. This latter assumption appears to



have strong empirical justification, given the importance in the West of retained profits as a source of corporate investment.

Profits can be thought of as the key determinant of a wide range of factors which affect the sustainable growth rate of an economy, both including and going beyond whatever definition of investment is thought to be important. North (see, for example, [7]) has emphasised the importance of adaptive rather than allocative efficiency as the key to long-run growth, and one does not have to believe in neoclassical rational maximising agents to imagine that the incentive to adapt will be affected by the prospective level of profitability. Chandler [8], in his major study of the detailed histories of the 200 largest manufacturing companies in the US, the UK and Germany over the 1870-1940 period, provides powerful empirical support for North's view, showing that far from being passive recipients of the technological environment and markets in which they operated, successful firms implemented strategies which actively shaped the markets and their structure. The detailed work of Schmookler [9]<sup>2</sup> illustrates the importance of the demand aspect of the sources of innovation. In other words, successful inventions are caused by factors similar to those which cause investment, namely expected profitability.

In this section, the hypothesis is examined that the distribution of income between wages and profits is an important determinant of growth in the medium to longer term. The use of time-series data, apart from the more general problems which this would create, is complicated by the fact that the profit share exhibits a certain degree of cyclical fluctuation. This gives a further motivation to our choice of cross-sectional data in which variables are averaged over a period of years, so that the average share of profits in an economy over, say, a fifteen year period, can be thought of as capturing the average expected level of profitability over that same period.

Specifically, we consider the slow-down in growth which has taken place in almost all Western countries since the mid-1970s compared to the immediate post-war period. The availability of data on income distribution from the OECD National Accounts constrains this latter period to the years starting in 1960.

---

<sup>2</sup> Which I first read as a post-graduate at Oxford in the early 1970s. It has taken me a long time to appreciate its importance, stimulated of course by the recent work of Scott [ 10]



The variable to be explained is the change in the average annual growth rate of real GDP in the 1974-92 period compared to that of the 1960-73 period. The average annual growth rate over the 1983-92 period was also compared with that of 1960-73, excluding the 1974-82 period on the grounds that this was a period of exceptional turbulence as economies adjusted to the major international shocks of the early and mid 1970s and hence the data do not necessarily reflect the sustainable medium-term growth rates during that period.

There are two explanatory variables used in the regressions. First, the change in the average share of labour in national income between either 1974-92 or 1983-92 and 1960-73. The share of labour is defined broadly to include not just wages and salaries, but employers' contributions to health and pension schemes, and so on. Data are available on the share of profits, but in the national accounts profits tends to be a residual variable and hence is not necessarily measured as accurately as the share of labour, which is almost entirely derived from individual and corporate tax returns. Taking individual years over time, the correlation between changes in the profit and labour shares can be small because of the existence of other components of national income such as rent. But in the medium term it is not unreasonable to regard changes in the one as being a good proxy for changes in the opposite direction in the other.

The use of the change in the share between the two periods removes problems associated with different ways of allocating income to labour instead of other components of national income in the national accounts of the different countries - Italy, for example, seems to have a labour share which is very much lower than the other European economies at similar levels of per capita income, but the difference is apparent rather than real, being mainly due to differences of definition.

During the 1960-73 period itself, the share of labour in national income was rising sharply in most countries, especially in the late 1960s and early 1970s. As a generalisation, the labour share continued to rise until around 1980, since when there has been a fall, although the amount by which the share has fallen varies quite widely across countries. But even by the early 1990s, in most countries the labour share was still several percentage points higher than its average during the 1960-73 period. Chart 1

plots the labour share for ( West ) Germany, which is quite typical of the experience of most of the countries.

The clear exceptions to this description of the data are Norway, the United Kingdom and the United States. In these three countries, the changes in the average labour share between 1974-92 and 1960-73 were small, being, respectively, 0.6, -0.9 and 1.2 percentage points, compared to the 20 country average of 4.7 percentage points. And the deterioration in growth was low, being 0.95, 1.70 and 1.5 percentage points respectively, compared to the 20 country average of 2.7 percentage points, and the 17 country average net of these three of 3.05 percentage points. The simple relationship between the change in growth and the change in labour share is set out in Chart 2, which identifies the individual countries.

The Norwegian experience obviously owes a great deal to North Sea oil, which represents a very substantial proportion of the overall Norwegian economy. The protection of the profit share in the Anglo-Saxon economies, primarily through policies to promote 'flexible' labour markets, has led to a less marked deterioration in their recent growth rates, albeit at the expense of a widening of the income distribution within the share of labour.

The second variable used in the regressions is the average annual rate<sup>2</sup> of growth in the 1960-73 period. The purpose of this variable is in part to allow for the slow-down in growth which takes place according to the 'catch-up' effect (see Maddison again for a concise summary). In other words, it is hypothesised that during the immediate post-war period the rapid rates of growth observed in most Western countries were partly due to the exploitation of the opportunity to catch up with the United States, the leading capitalist economy. In addition, it can be argued that some of the rapid growth in the West in the immediate post-war period was generated by the opportunities created by the restrictions on personal consumer spending which operated for most of the 1940s, and that a slow down was inevitable in all countries once these opportunities had been exploited to the full.

A third variable was included in the initial regressions, namely the<sup>3</sup> change in the share of capital investment in GDP between the relevant periods. Comparing the 1983-92 period with that of 1960-73, the coefficient on this variable was incorrectly signed and completely insignificant, and although it was correctly signed and better defined comparing 1974-92 and

1960-73 it was still below the conventional 5 per cent level of significance. The results are therefore reported without this variable.

The equation estimated by OLS for the 20 countries listed above was as follows:

$$DG7492 = 0.571 - 0.142 \cdot DW7492 - 0.515 \cdot G6073 \quad (1)$$

(0.47)      (0.050)      (0.106)

$$R^2 = 0.756; \text{ s.e} = 0.587$$

where DG7492 is the change in growth, DW7492 is the change in labour share ( between 1974-92 and 1960-73 ), G6073 is the average GDP growth rate in the 1960-73 period, and the figures in brackets are the heteroskedastic-consistent standard errors.

Both explanatory variables are correctly signed and highly significant, and the degree of explanatory power of the equation is high. If the equation is estimated for the 19 largest OECD economies, excluding from the above sample Ireland, whose nominal dollar GDP is only just over half as large as that of the next biggest OECD economy, the estimated coefficients are very similar but the  $R^2$  rises to 0.867

Using data for the changes between 1983-92 and 1960-73 gives similar results:

$$DG8392 = 0.683 - 0.117 \cdot DW8392 - 0.559 \cdot G6073 \quad (2)$$

(0.53)      (0.036)      (0.105)

$$R^2 = 0.781; \text{ s.e.} = 0.556$$

Again, using data for the 19 largest economies improves the  $R^2$  to 0.838. Letting the change in growth in the 1983-92 period depend upon DW7492, in other words upon the change in the labour share over the whole of the 1974-92 period and thereby capturing the longer-term effects of the fall in profitability in the mid- to late-1970s, gives a marginally better fit, with the coefficient on DW7492 being -0.161.



Chart 3 sets out an assortment of plots designed to reveal graphically any weaknesses in equation (1). The top left hand plot shows the residuals against the fitted values to see if there is any unexplained structure left in the residuals. The next plots the square root of the absolute residuals against fitted values, which is useful to identify outliers and again to visualise structure in the residuals. The top right hand chart plots the actual data against the fitted, and the closeness of the result to the 45 degree line reveals the power of the fit. The bottom left-hand chart sets out a normal quantile plot of the residuals, which provides a visual test of the assumption of normally distributed errors. The next compares the spread of the fitted values with the spread of the residuals, and the final chart plots Cook's distance, which is a measure of the influence of individual observations on the regression coefficients.

Inspection of the various charts confirms the satisfactory nature of the model, with the proviso that there appear to be a few potential outliers, which have a relatively large influence on the regression coefficients. The identified points correspond to Ireland ('17' in the charts), Japan ('9'), Norway ('11'), Spain ('12') and the UK ('15'). Ireland in particular appears to be an outlier, and as pointed out above, its exclusion from the data set increases the already high degree of overall fit quite distinctly.

The robustness of the OLS results was therefore checked by estimating the model by least trimmed squares ( LTS ), introduced by Rousseeuw [11,12]. OLS estimates of  $\beta$ , the vector of coefficient estimates, are obtained by minimising the sum of all the squared residuals. This method is not robust, in the sense that a single observation can in principle cause  $\beta$  to take on any value. LTS minimises the sum of the  $q$  smallest squared residuals<sup>3</sup>, where  $q$  is set to be just over half of  $n$ , where  $n$  is the total size of the sample. LTS is a highly robust method, since almost half the data could be replaced by arbitrarily large values without making the Euclidean norm of  $\beta$  tend to infinity.

The LTS results are encouragingly similar to (1)

$$DG7492 = -0.095 - 0.186 \cdot DW7492 - 0.361 \cdot G6073 \quad (3)$$

<sup>3</sup> The algorithm available for LTS in the package S-Plus chooses the  $q$  smallest by use of a genetic algorithm

The influence of DW is somewhat greater and that of G6073 somewhat less than in the OLS results, but the LTS estimates show that the results are not dependent upon a small number of extreme observations.<sup>4</sup>

Researchers such as Mankiw *et.al.* [*op.cit.*] have used the Summers and Heston [13] data set to investigate the determinants of growth over the period 1960 to 1985. The aim is somewhat different to this paper, and the period spans two quite different growth regimes. But nevertheless, the addition of a term in the average share of labour in national income to the Mankiw *et.al.* results supports the idea that this variable is important. Growth is postulated to depend upon LY60, the log of GDP per working age person in 1960 (the catch-up effect), the log of a composite term embracing advances in knowledge, the growth in labour supply and the rate of depreciation (LNGDEL), the log of the share of investment in GDP over the 1960-85 period (LKY), and the log of the percentage of the population in secondary school (LSCHOOL). For the 22 OECD countries, the overall  $R^2$  is 0.65, but most of the explanation is done by the first variable, the catch-up term. The latter two variables are barely significant and, indeed, when estimated with heteroskedastic-consistent standard errors, the investment variable is not significant at the conventional 5 per cent level. The equation is robust with respect to the exclusion of Turkey from the data set in terms of the point estimates of the coefficients and the  $R^2$ , although only the catch-up variable is significant. Adding a term in the log of the average share of labour in national income over the 1960-85 period and estimating the equation by least trimmed squares gives:

$$\begin{aligned} \text{DLY} = & - 0.298 \cdot \text{LY60} + 0.038 \cdot \text{LKY} + 0.207 \cdot \text{LSCHOOL} \\ & - 0.997 \cdot \text{LNGDEL} - 0.178 \cdot \text{LAVWSH} \end{aligned} \quad (4)$$

where DLY is the log difference of GDP per working age person 1960-85. Compared to the results without LAVWSH, the coefficient on LKY is lower by an order of magnitude, reflecting our failure to find any influence of this variable on growth.

---

<sup>4</sup> With the 1983-92 period, LTS changed the coefficient on the DW variable to -0.081, very similar to that obtained using just the 16 largest countries

Taking the 15 European economies in the sample together, the labour share rose from 56.3 per cent on average 1960-73 to 61.0 per cent in 1974-92. Annual average GDP growth in the two periods was, respectively, 4.9 and 2.3 per cent. Of this 2.6 percentage point fall, using the LTS estimates from (3) we can see that some 1.75 percentage points was due to the fading out of the catch up effect, and around 0.9 percentage points due to the increase in labour share and corresponding erosion in profitability. Regardless of the impact on unemployment, the very real cost of Europe's high payroll taxes is seen in a distinctly lower rate of economic growth in the medium to longer term.

### 3. Unemployment and growth

Perhaps the most soundly based insight offered by macro-economic theory is the distinction between the underlying trend rate of growth and fluctuations around the trend during the course of the business cycle. Yet it is one which is frequently ignored in a great deal of policy analysis. The strong correlations which often exist between growth, employment and unemployment during the course of the business cycle are assumed to hold over the course of several business cycles. The emphasis on this section is on the relationship between growth and unemployment in the longer run, ignoring any transitory relationships which may exist during the course of the cycle, and which in any event offer no guidance as to how to achieve a sustained reduction in unemployment<sup>5</sup>

Since 1973, annual real GDP growth in the EU has been around 1 percentage point a year lower than it would otherwise have been because of the erosion of profitability, with an overall reduction in growth of 2.7 percentage points. Over the 1974-92 period as a whole, the average rate of unemployment rose by 5.1 percentage points compared to the 1960-73 average, whilst compared to the same benchmark the average in the more recent years from 1991-94 was 7.0 percentage points higher.<sup>6</sup>

This simple observation appears to demonstrate a connection between lower growth as a result of lower profitability, and higher unemployment.

---

<sup>5</sup> For example, macro-economic models are still no nearer agreement on the size of the short-run multiplier than they were 20 years ago. See Laury, Lewis and Ormerod [14] and Church et.al. [15]

<sup>6</sup> The figures exclude Greece and Luxembourg



Chart 4, however, plots the international evidence across 20 countries for the relationship between the change in average unemployment rates and the change in growth between the 1983-92 and 1960-73 periods. By inspection, there appears to be no relationship at all, which is supported by the fact that an OLS regression gives an  $R^2$  very close to zero. An identical result obtains using the changes between 1974-92 and 1960-73.

In the context of changes in unemployment, the 1983-92 on 1960-73 comparison is the more appropriate one to make than over the full 1974-92 period and 1960-73. The various shocks to the economies took time for their full impact to become apparent. In addition, the European economies in particular

were subjected to further shocks in the early 1980s, which led to unemployment rising to even higher levels.

One way of illustrating this point is by the conventional method of a plot of the data over time, but the use of a connected scatter plot makes it even clearer. A connected scatter plot is essentially a simple scatter plot between the current level of a variable and its level at a particular lag (or combination of lags), but with the resulting points being connected in a sequential way. Chart 5 sets out a connected scatter plot of the unemployment rate in the UK and the rate lagged one year, over the 1960-94 period. The ellipses at the bottom left of the chart indicate the low average rates around which unemployment moved in the business cycles of the 1960s and early 1970s. There was an upward shock in 1975, followed by further gradual rises with no clear cyclical pattern re-asserting itself, before the early 1980s saw an even stronger upward shock.. Since the early 1980s, however, unemployment in the UK, visualised in this way, did seem to settle into a recognisably cyclical pattern, around a high average level<sup>7</sup>

Although there are differences between individual countries, the qualitative nature of the connected scatter plot for the UK is very similar to many of the European economies, the Scandinavian and Austrian economies being the real exceptions. The American experience is quite different, with

---

<sup>7</sup> Of course, there is currently a debate about UK unemployment which can be thought of, in the context of Chart 5, as asking whether the evidence indicates that a downward shock has occurred, and UK unemployment will begin to cycle around a lower average rate than it did in the 1980s and early 1990s



connected scatter plots showing, as might be expected, no real change in the average rate during the 1960-94 period around which unemployment cycles. But the main point to note from chart 5 in the context of this paper is that shocks take time to feed through, and hence it is changes in unemployment between the 1983-92 and 1960-73 period which are our main focus.

Even though the change in unemployment being considered is between the averages of 1983-92 and 1960-73, the change in growth which is used as the explanatory factor in the analysis is that between 1974-92 and 1960-73. The fall in the average growth rate between the latter two periods is slightly greater than it is between 1983-92 and 1960-73. This needs to be taken into account given that the 1983-92 period began with unemployment already higher than in the 1960-73 period because of, at least in part, weak growth in the 1974-82 period.

Two contradictory pieces of evidence seem to exist. First, the fact that the slow-down in growth in the OECD from 1974 onwards coincides with much higher rates of unemployment, whether over the 1974-92 or 1983-92 periods, than in the 1960-73 period. But, second, a cross-sectional regression of the change in unemployment on the change in growth suggests that the latter has virtually no explanatory power. This potential paradox is resolved by the use of least trimmed squares. Observations which are outliers may give a spurious impression that a relationship exists between two variables. Equally, however, outliers may conceal the existence of a genuine relationship for the bulk of the data. Chart 6 plots the same data as in Chart 4, adding the LTS fitted line, which shows a strong negative relationship between unemployment and growth for many of the countries.

The estimated regression is in fact:

$$DU8392 = -5.51 - 4.625*DG7492 \quad (5)$$

method of estimation: Least trimmed squares

This technique, described in section 2 above, effectively ignores outliers to fit the regression line to the bulk of the data. Chart 6 can therefore be used to identify the outlier countries. Ireland is a conspicuous example and, given that the regressions of section (2) also showed Ireland to be an outlier, it could perhaps be removed from the data set. Essentially, it is

a very small economy which has been able to preserve its growth rate since 1973 through transfers from the EU and by attracting a certain amount of foreign direct investment, albeit with a low employment content.

Of the other countries, Japan is the most obvious outlier, but Austria, Finland, Portugal, Sweden and Switzerland all showed increases in average unemployment which were much lower than would be expected given the change in economic growth rates. The UK is also a potential outlier, with increases in unemployment higher than expected.

We return to a discussion of the outliers in section 4, simply noting at this stage that the reduction in growth since 1973 did not automatically lead to substantial increases in unemployment.

Using the information from the LTS regression, the outliers can be excluded in various combinations using OLS in order to produce familiar measures of fit and significance. The exclusion of Ireland and Japan, the two most obvious outliers, does produce a negative relationship between changes in unemployment and growth, but one which is at the very margin of significance with an  $R^2$  of only 0.171. Dropping in addition Portugal and Switzerland leads to a much more powerfully defined equation, with an  $R^2$  of 0.468 and a coefficient on the change in growth of -3.283. The further exclusion of Austria and Finland gives:

$$\text{DU8392} = - 2.07 - 3.495 \cdot \text{DG7492} \quad (6)$$

$$(1.51)(0.577)$$

$$R^2 = 0.748; \text{ s.e.} = 1.713 \text{ OLS}$$

If the UK is also excluded, we obtain:

$$\text{DU8392} = - 3.22 - 3.834 \cdot \text{DG7492} \quad (7)$$

$$\dots(1.32) \quad (0.493)$$

$$R^2 = 0.844; \text{ s.e.} = 1.406 \text{ OLS}$$

Of course, whilst the overall fall in average growth was 2.7 percentage points, it is reasonable to assume that the portion of the fall attributable to the 'catch-up' factor had no effect on unemployment. GDP

growth was high for twenty-odd years after the war because of the potential for high productivity growth was exploited, but by hypothesis as this latter factor fell away, so did GDP growth.

We therefore re-ran the regressions above, concentrating on that proportion of the fall in GDP growth attributable to the erosion of profitability. This was done by adding to the actual change in growth the factor  $0.361 \cdot G6073$  which is the amount attributed by equation (3) to the fall in growth due to the 'catch-up' factor.

The results, in terms of both the outliers and the degree of explanatory power, were virtually identical to those of the equations above which used the actual change in growth. Excluding Ireland and Japan, the growth variable was on the bare margins of significance, with an  $R^2$  of only 0.101, but the OLS regression on the same sample as (6) gave:

$$\begin{aligned} DU8392 &= 2.96 - 4.741 \cdot Z & (8) \\ &\dots\dots(0.87) \quad (0.694) \end{aligned}$$

$$R^2 = 0.695; \text{ s.e. } = 1.887$$

where  $Z$  is defined as  $DG7492 + 0.361 \cdot G6073$ .

The evidence, then, suggests a limited role for higher economic growth in reducing unemployment over time. The average rate of growth of the EU countries in the sample over the 1974-92 period was 2.1 per cent. If this, by some means, were raised to the 3.5 per cent average envisaged by the Delors White Paper, using equation (8) suggests that, over a twenty year period the average rate of unemployment would fall by  $(3.5 - 2.1) \cdot 4.7 = 6.6$  percentage points. This would succeed in reducing by just over a half the present average rate of unemployment in the EU.

The twenty year horizon is dictated by the fact that the evidence on which the above regressions is based relates to the change in growth over a twenty year period. Of course, the implied 6.6 percentage point fall is an average over the period. So, if growth were instantaneously increased by 1.4 percentage points a year and the resulting fall in unemployment were smoothed over the period, this fall would be observed after just (!) 10 years.



But the evidence of equation (3) suggests that such an increase in growth would need to be accompanied by a  $1.4/0.186 = 7.5$  percentage point fall in the share of labour in national income, and a corresponding rise in the share of profit. Again, to emphasise, it is here that the real cost of high payroll taxes is seen. The welfare of all Europeans is worsened by the resulting reduction in the sustainable growth rate, and, indirectly, unemployment is increased.

Overall, in order to bring about a fall of 6-7 percentage points in European unemployment after 10 years by higher economic growth, an immediate and sustained fall of over 7 percentage points in the share of labour in national income is required. This could be in the form of reductions in the non-wage costs of labour, or in the form of real wage cuts. Either way, it is an understatement to suggest that such policies would cause political problems. Of course, there is an inherent uncertainty around the particular quantitative estimate which is made, but the evidence does indicate that the change in the profit/wage mix which is required is large. We therefore turn to a different aspect of the phenomenon of distribution, namely the distribution of income within the overall labour share in national income.

#### **4. The distribution of labour income**

The evidence of section 3 shows that a number of countries in the past twenty years managed to contain the rise in unemployment, despite experiencing marked slow-downs in economic growth. The various models of behaviour which brought this about are now, in their different ways, under severe strain, but each of them can be thought of as operating through the distribution of labour income.

The very low levels of productivity in the Japanese domestic service sector are well documented. The high levels of employment relative to output are paid for by the high prices of these services, which can be thought of as a tax on the income of the personal sector as a whole. Japanese society differs from other Western countries in many aspects, but this is the single most striking difference in terms of the outcome for the overall level of unemployment. The pervading business culture which frowns upon the dismissal of workers during times of recession has undoubtedly curbed the amplitude of the fluctuations in Japanese

unemployment arising from the traded sector of the economy during the course of the cycle. But, at least until very recently, the belief that demand would soon resume and validate the decision to retain rather than sack workers has proved correct. So the cultural attitude towards dismissal does not by itself seem to be a major factor accounting for low unemployment. Rather, it is the effective tax on personal incomes levied through high prices of services.

In policy terms, it is difficult to see how such a solution could be co-ordinated in the private sector of the European economy. But in many parts of the trading public sector - including here privatised industries such as those in the UK which are subject to heavy regulation on pricing - it would be possible to carry out such a policy. In other words, to increase prices with the explicit aim of using the resulting revenue to create jobs. Indeed, it does appear that such a policy is already in effective operation throughout much of Europe. One has only to think of the subsidies to many European airlines, for example, in order to understand the point.

It is a matter of political judgment as to whether support could be gathered for an extension of such a policy. The economic argument that this would raise the costs of European industry and hence reduce competitiveness is not a strong one. The resulting increase in costs would only be a matter of a few per cent at most, which could easily be offset by a fall in the effective exchange rate. Krugman [16] first pointed out with the example of the US dollar that, contrary to the beliefs of many economists, the correlation between real and nominal movements in the effective dollar rate is very high, so that changes in the nominal rate are reflected only very slowly in the domestic price level, if they are reflected at all. A similar result holds for the European currencies, and in particular for the German mark.

The distributional consequences of the approach to unemployment in Sweden and Finland are obvious. The high taxation in this case is not indirect via high prices, but is manifested directly through high explicit levels of personal taxation. Although the 1990s have seen some reluctance on the part of Swedes and Finns to meet the required bills, the differences between the attitude towards taxation of these electorate and those of many other European countries explain much of the policy differences between Sweden in particular and other European partners. Clearly, if the European

electorate as a whole were willing to finance a permanent rise in the level of taxation, the public service sector could act much more effectively as an employer of last resort, and unemployment could be reduced substantially.

The current high rates of unemployment in Finland and Sweden - much higher than their 1983-92 averages - are due to the very sharp recessions experienced in those countries from 1990 to 1993 following the collapse of the banking systems through speculative losses mainly in the European property market. In Sweden, the fall in real GDP was as large as in the Great Depression in the 1930s, and in Finland it was very substantially greater, being some 13 per cent. It is not surprising that taxes could not be raised sufficiently to cope with shocks of such severity. What is surprising is that economists such as Ljungqvist and Sargent [17] can attribute these recent increases in unemployment to generous welfare state provisions rather than to the severity of the economic recession.

The Swiss and Austrian experiences have a number of similarities to that of Japan (see, for example, Rowthorn [18]). Switzerland, for example, has a highly open and efficient traded sector, but the rest of the economy is highly protected and, where necessary, subsidised explicitly. Agriculture is very inefficient by standards in other countries, but it is regarded as an important feature of the Swiss way of life. Both countries absorbed in part the impact of the oil price shock by expelling foreigners and both, in their domestic sectors, are highly regulated.

The crucial importance of the distributional issue can be seen in the markedly contrasting outcomes for unemployment in Portugal and Spain. In the early 1970s, the two had many factors in common, not least the regulated nature of the economies which had existed under the dictatorships. Compared to the 1960-73 period, both countries saw marked reduction in growth from 1974 to 1992, being 4.1 percentage points in Portugal and 4.5 percentage points in Spain. Unemployment in the former period was virtually identical, being 2.5 and 2.6 per cent respectively. Both countries have extensive welfare provision on the lines of the general EU model. Yet in the 1983-92 period, unemployment in Portugal averaged only 6.5 per cent, compared to no less than 18.5 per cent in Spain.

The question must now be addressed as to how far the marked widening of the distribution of labour income in the Anglo-Saxon



economies, the United States and the United Kingdom, is responsible for the relatively low levels of unemployment which now obtain in these two countries. Chart 6 suggests at one level that this has played little role, for most of the change in the average rate of unemployment 1974-92 compared to 1960-73 can be accounted for by the change in economic growth. If anything, the change in UK unemployment was, averaged over the period as whole, higher than might have been expected. This latter point is explained by both the unexpected severity of the 1980-82 recession, which eliminated rapidly large number of jobs in inefficient sectors of manufacturing, and by the privatisation of virtually all the trading industries in the public sector, with the resulting massive shake-out of jobs.

The most recent fall in UK unemployment since 1994 is partly cyclical, but has also been accompanied by a further fall in the share of labour in national income<sup>8</sup>. Clear indications of a relatively recent structural break in UK labour market behaviour are given by the fact that the fall in unemployment from 1994 to date has not led to a rise in inflation, the first time this has happened since the 1920s.

An important point in this debate is the fact that the institutional and market structures which permitted a more effective defence of the profit share in the Anglo-Saxon economies themselves enabled, via economic growth, unemployment to be lower than it would otherwise have been. And, on the evidence of the previous paragraph, recent structural falls in the labour share in the UK are enabling unemployment to be reduced even further.

It is a matter of judgement as to whether, given the historical background of the 1960s and much of the 1970s, a counter-factual case could be constructed in which the profit share was maintained without being accompanied by a widening of the income distribution within the share of labour. To put the argument differently, it seems at least plausible that in the Anglo-Saxon economies those forces which enabled the profit share to hold also contributed to the widening of the income distribution.

---

<sup>8</sup> These further falls led the Director of the Confederation of British Industry to call this year, rather bizarrely, for a reversal of the process. This must be one of the few occasions on record when a representative of industry has called for a reduction in profits



Each of the two economies experienced a factor particular to itself. In the case of the UK, there was legislation on labour law, which has weakened dramatically the power of the British trade union movement. On the assumption that trade unions were able, to varying degrees, to command a wage premium for their members and on the further assumption that a general reduction of union power made it easier for employers to erode the premium amongst the less skilled and educated<sup>9</sup>, the labour legislation has led to a widening of the British income distribution.

The specific factor in the case of the US is that of immigration, which is an emotive issue in America. Certainly, academic empirical work does not appear to suggest a strong effect on the distribution of income (see, for example, Katz [19] for a discussion of the literature). This may reflect in part the bi-modal nature of the skill distribution within the immigrant population into the United States. But the majority are unskilled compared to the native population, and their numbers have increased sharply since 1980. Compared to the massive migrations around the turn of the century, the numbers are relatively small. But they are distinctly higher than at any time since the end of the First World War. Since 1980, the net increase in the stock of immigrants into the US, legal and illegal, is at least 5 per cent of the total population. In European terms, it is as if the populations of France, Italy and the UK had each increased by some 3 million since 1980 as a result of immigrants, most of whom are relatively unskilled. It is difficult to believe that this would not have had some readily discernible effect on the distribution of labour income, particularly in a relatively de-regulated labour market such as that of the UK.

The factors common to both the Anglo-Saxon economies, indeed to the West as a whole, are technological change and the globalisation of the world economy. The impact of the former on income distribution is by no means clear-cut, although American economists in particular appear convinced that it has had a decisive impact. The phrase 'globalisation' is used to cover a wide range of effects, from the increased competition in goods markets from the Asian economies, to the ability of Western capital to locate almost anywhere around the world. The scale of globalisation, particularly compared to the pre-First World War period, is often

<sup>9</sup> An assumption with strong empirical support, albeit indirect. Trade union membership has effectively halved in the past decade, so that now it is heavily concentrated in middle class occupations in the public sector

exaggerated. Hirst and Thompson [20], for example, provide a detailed factual antidote and set the recent experience in a historical context. But the perceived ability of capital to locate outside the West has undoubtedly increased sharply during the 1990s. The Asian economies are increasingly attractive, and political changes have opened up the former Eastern bloc. Theoretically, as Minford [21] for example argues, the impact of globalisation on the distribution of income in the West should be substantial.

A key question is why, given these general forces, the distribution of labour income of those in work has not widened elsewhere to anywhere near the extent which it has in Britain and the United States. One possible argument is that a combination of factors is required to generate the critical force, as it were, required to trigger off a marked shift. The UK and US have each had their own particular factors at work, discussed above, which formed the catalyst.

But, whatever the answer might be to this question, the fact is that the distribution of labour income *has* widened markedly in the UK and the US. This has been accompanied by distinctly smaller reductions in the share of profits than in other Western countries compared to the 1960s and the early 1970s. The evidence from the UK in the 1990s suggests a further shift towards profits has taken place. The higher is profitability in the medium term, the higher is the rate of economic growth and the lower is unemployment. And the factors which enable profitability to be maintained also facilitate a widening of the income distribution between those in employment. In this sense, the widening of the income distribution has been a necessary condition in the Anglo-Saxon economies for the relatively low level of unemployment which now obtains. This is not to say that profitability could not be restored elsewhere without the application of the brute forces which also cause the labour distribution to widen, but it is not immediately obvious how a consensus might be built up as to how this could be done.

## 5. Policy implications

The evidence above points to the conclusion that there does not appear to be a costless way of making substantial and permanent reductions in the level of European unemployment. A sustained rise in the underlying rate of output growth has the potential to reduce unemployment. But halving the current rate over a period of ten years requires a large and immediate shift in the distribution from wages (broadly defined) to profits.

The Anglo-Saxon economies have maintained the share of profits in national income much more effectively than have the European economies, but have done so in the context of institutional frameworks which permit market forces - both those particular to each country and those which are more general in their potential impact - to operate in a ruthless manner. These same factors which have helped preserve the profit share have also led to a widening of the distribution of labour's share of national income.

In this approach, unemployment is relatively low, and the direct costs are borne by those who suffer from the widening of the distribution of labour income. In the European model, those who remain in work see their wages rising in line with real output, and the costs are borne by the unemployed.

A number of countries, such as Japan, Sweden and Austria, have maintained low unemployment for most of the past twenty years by models which also involve - in their different ways - a re-distribution of the income of the personal sector. Certain aspects of these strategies involve problems of co-ordination if they are to be brought into existence. But the main problem appears to be one of political economy, in that European electorates in general do not seem to be willing to vote for the explicit transfers of income which these approaches entail.

The concept of work-sharing is yet another approach to the distributional question. The idea is by no means restricted to its literal definition. but should be thought of more imaginatively in terms, say, of shorter working hours either during the working year or re-distributed over a lifetime. This requires a pro rata reduction in income, in return for which people get increased leisure.



It is the strong revealed preference of consumers throughout the West since the war. Under the regime of the 'three Fifties', just a few decades ago, the average worker who remained in full-time work throughout his or her lifetime would work for  $(50 \times 50 \times 50) = 125,000$  hours during a lifetime. Even for a 'full-time' worker, in the mid-1990s this figure has fallen to some 65 -70,000 hours. In other words, during the second half of our century alone, the amount of work which a 'full-time' worker is expected to do in the course of a lifetime has fallen by almost a half. The benefits of growth have been taken as much in the form of more leisure as they have been in higher real incomes.

Indeed, over a much longer time span, increases in leisure time have proved a popular choice. Using the data in Maddison [*op.cit.*], we can see that the number of total annual hours worked on average in the EU is the same in the 1990s as it was in 1870. Until the First World War, total annual hours rose, but since then there have been steady reductions. Essentially, compared to 1870 there are twice as many people in employment in the European countries, working on average for half the number of hours a year.

Despite the evidence of its popularity revealed in actual behaviour, the idea is often attacked by economists on the grounds that it is derived from the lump of labour fallacy, from the mistaken idea that there is only a fixed number of jobs available. But on the contrary, the number of jobs can grow over time. It is not the number of jobs which is fixed, but the share of labour in national income which is required to sustain any given medium term growth rate. The growing real value of this share can be taken up entirely by those in employment, leaving the number of jobs constant, or, at the other extreme, entirely by new jobs leaving the level of real wages constant.

Some, but by no means all, economists might feel more comfortable with the concept of work-sharing if they recalled that it was a solution which Keynes contemplated with equanimity. In a short and little remembered passage in chapter 22 of the *General Theory*, his only argument against it as a policy was that it was 'premature'. He believed that the prevailing levels of real income were such that the 'great majority' still required substantial increases. At the time of the *General Theory*, real per capita GDP in Europe was in the range \$3 - 6,000 (on Maddison's data), whereas now the range is \$16 -20,000.

Unemployment involves costs. These are both direct, in terms of the financial cost to the taxpayer and, perhaps more importantly, indirect in terms of higher crime, poorer health and less social cohesion. But there is no costless technical economic solution. A range of approaches is available, but each example involves a particular solution to distribution of income, both between profits and labour and within labour's share.

April 1996

Address for correspondence:

Post-Orthodox Economics, 35 The Avenue, Kew,  
Richmond, Surrey TW9 2AL, UK  
tel: +44 181 940 8562  
fax: +44 181 940 0573  
pormerod@mail.bogo.co.uk

## References

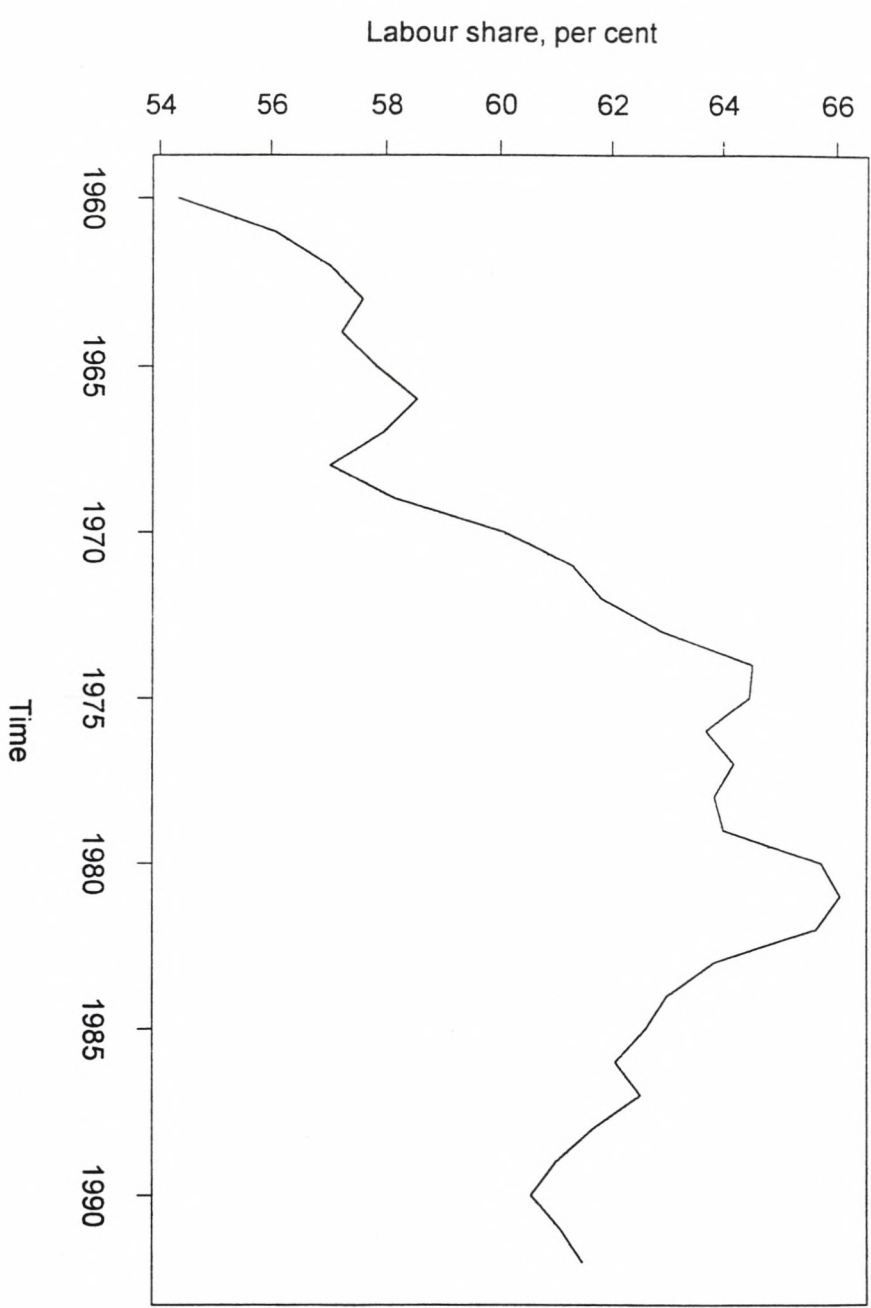
1. N.G. Mankiw, D. Romer and D. Weil (1992), 'A Contribution to the Empirics of Economic Growth', *Quarterly Journal of Economics*, vol. 152, pp. 407-37.
2. L.G. Reynolds (1983), 'The Spread of Economic Growth to the Third World', *Journal of Economic Literature*, vol. 21, no.3, pp. 941-80.
3. A. Maddison (1995), *Monitoring the World Economy 1820-1992*, OECD.
4. R. Levine and D. Renelt (1992), 'A Sensitivity Analysis of Cross-Country Growth Regressions', *American Economic Review*, vol. 82, no.4 pp. 942-62.
5. A. Boltho and G. Holtham (1992), 'The Assessment: New Approaches to Economic Growth', *Oxford Review of Economic Policy*, vol. 8, no. 4, pp. 1-14
6. R.M. Goodwin (1967), 'A Growth Cycle', in C.H. Feinstein, *Socialism, Capitalism and Economic Growth*, Cambridge University Press
7. D.C. North (1994), 'Economic Performance Through Time', *American Economic Review*, vol. 84, no.3, pp. 359-368
8. A.D. Chandler (1990), *Scale and Scope: The Dynamics of Industrial Capitalism*, Harvard University Press.
9. J. Schmookler (1966), *Invention and Economic Growth*, Harvard University Press.
10. M.Fg. Scott (1993), 'Explaining Economic Growth', *American Economic Review*, vol. 83, no.2, pp. 421-25.
11. P.J. Rousseeuw (1984), 'Least median of squares regression', *Journal of the American Statistical Association*, vol.79, pp. 871-88.

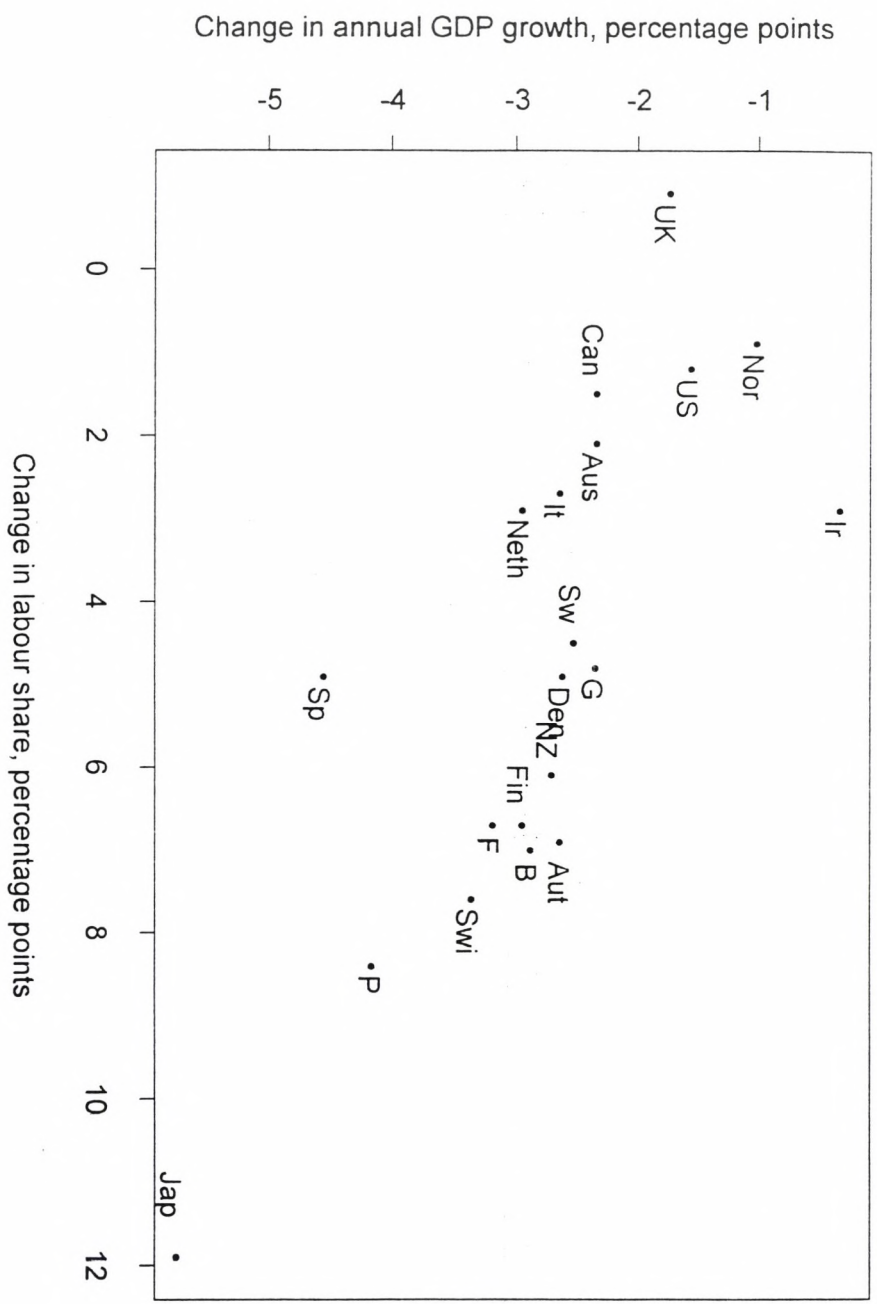
12. P.J. Rouseeuw and A.M. Leroy (1987), *Robust Regression and Outlier Detectors*, John Wiley. New York.
13. R. Summers and A. Heston (1988), 'A New Set of International Comparisons of Real Product and Price Level estimates for 130 Countries 1950-85', *Review of Income and Wealth*, XXXIV, pp.1-26.
14. J.S.E. Laury, G.R. Lewis and P.A. Ormerod (1978), 'Properties of Macroeconomic Models of the UK Economy: A Comparative Survey', *National Institute Economic Review*, no.83, February.
15. K.B. Church, P.R. Mitchell, P.N. Smith and K.F. Wallis (1993), 'Comparative Properties of Models of the UK Economy', *National Institute Economic Review*, no.145, August.
16. P. Krugman (1994), *Peddling Prosperity*, WW Norton.
17. L. Ljungqvist and T.J. Sargent (1995), 'The Swedish Unemployment Experience', *European Economic Review*, vol. 39, pp. 1043-70.
18. J. Pekkarinen, M. Pochjola and B. Rowthorn (1992), *Social Corporatism - a Superior Economic System?*, Clarendon Press, Oxford.
19. L.F. Katz (1992), 'Understanding Recent Changes in the Wage Structure', *NBER Observer*, Winter 1992/93.
20. P. Hirst and G. Thompson (1996), *Globalisation in Question*, Polity Press, Cambridge.
21. P. Minford (1996), 'Global Free Trade: the General Interest Case', *New Political Economy*, vol. 1, no.1, pp. 97-101, March.



# Chart 1 Labour share of national income in West Germany

1960 - 1992





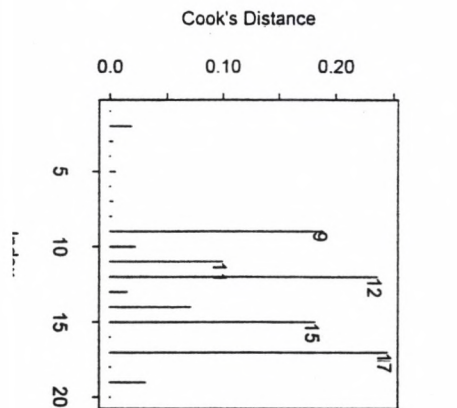
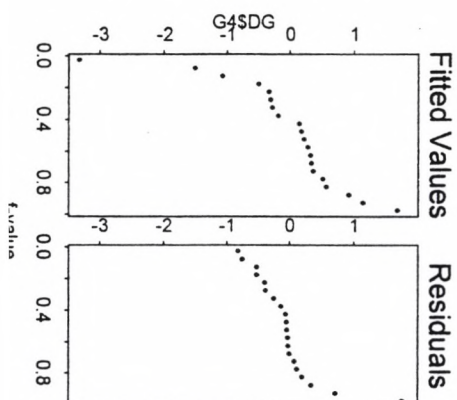
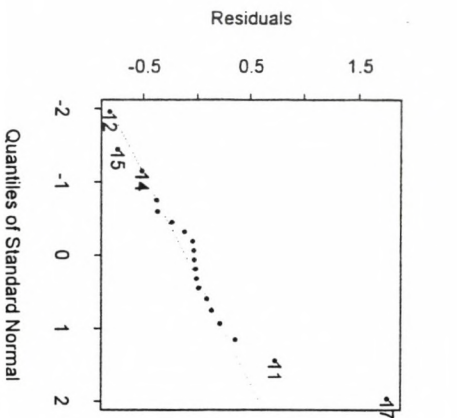
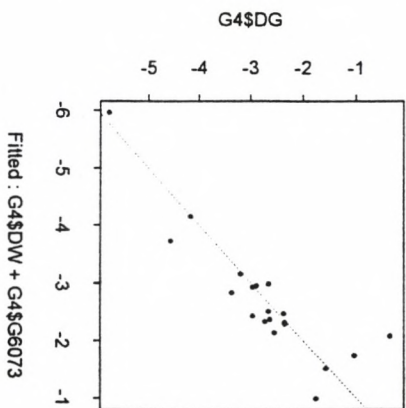
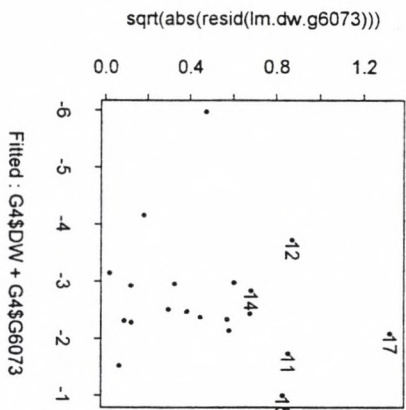
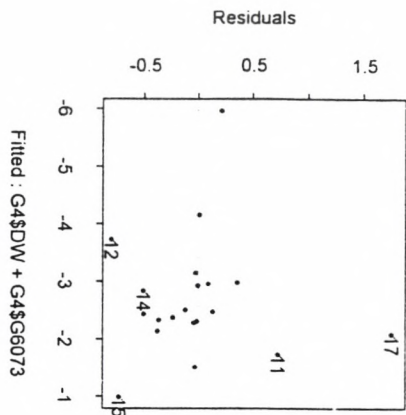
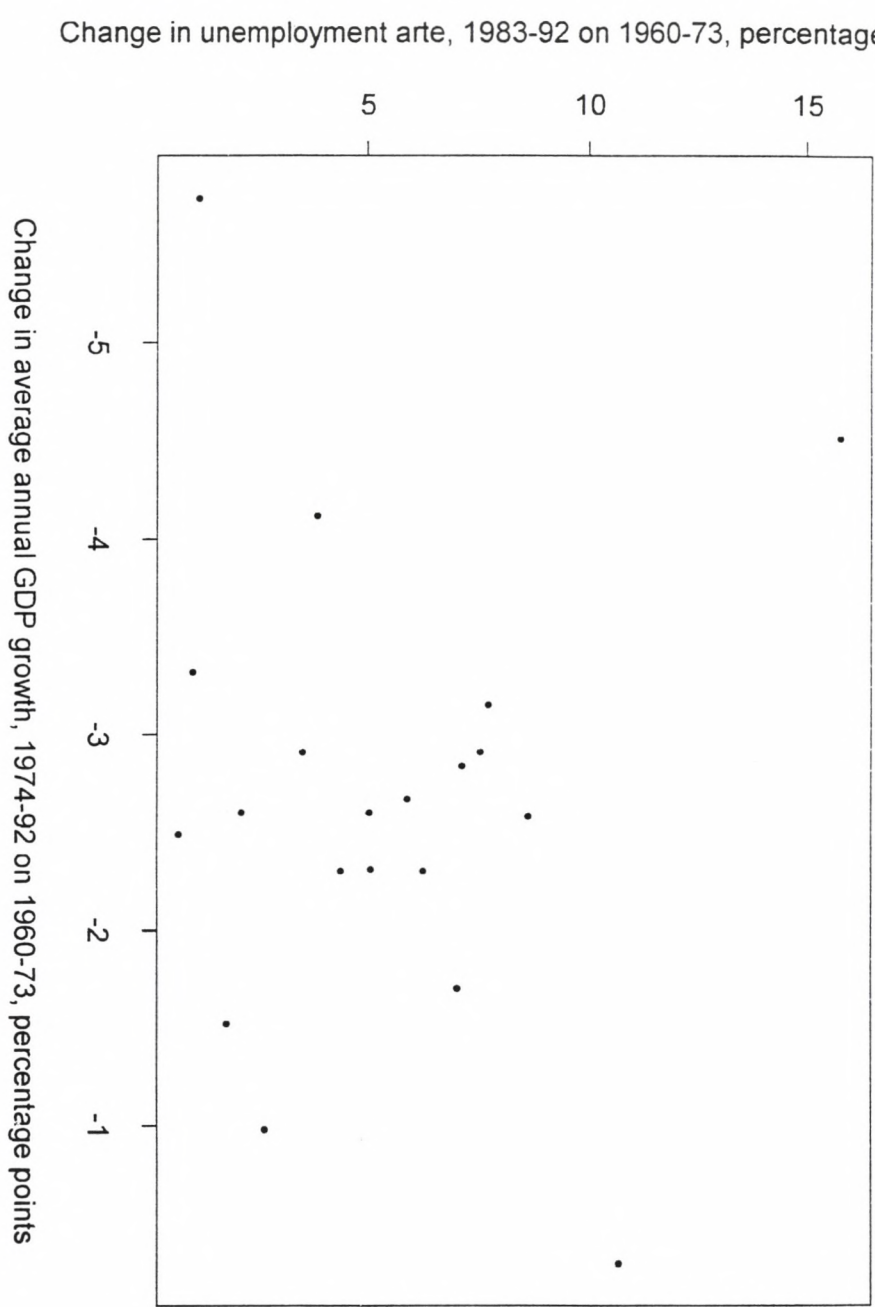


Chart 4 Change in average annual GDP growth (74-92 on 60-73) and unemployment rate (83-92 on 60-73)





**Chart 5 Connected scatter plot of UK unemployment rate**  
current and lagged 1960-94

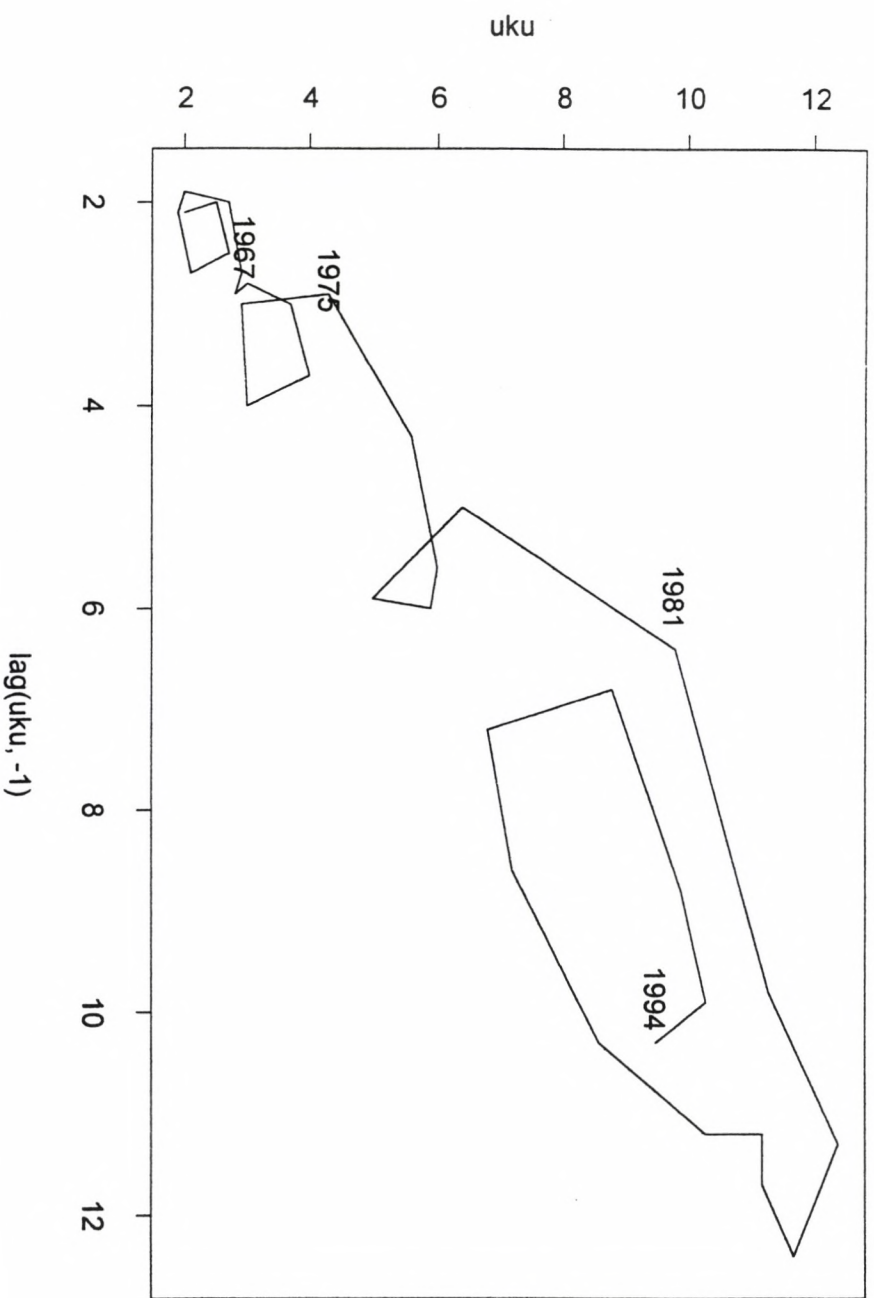
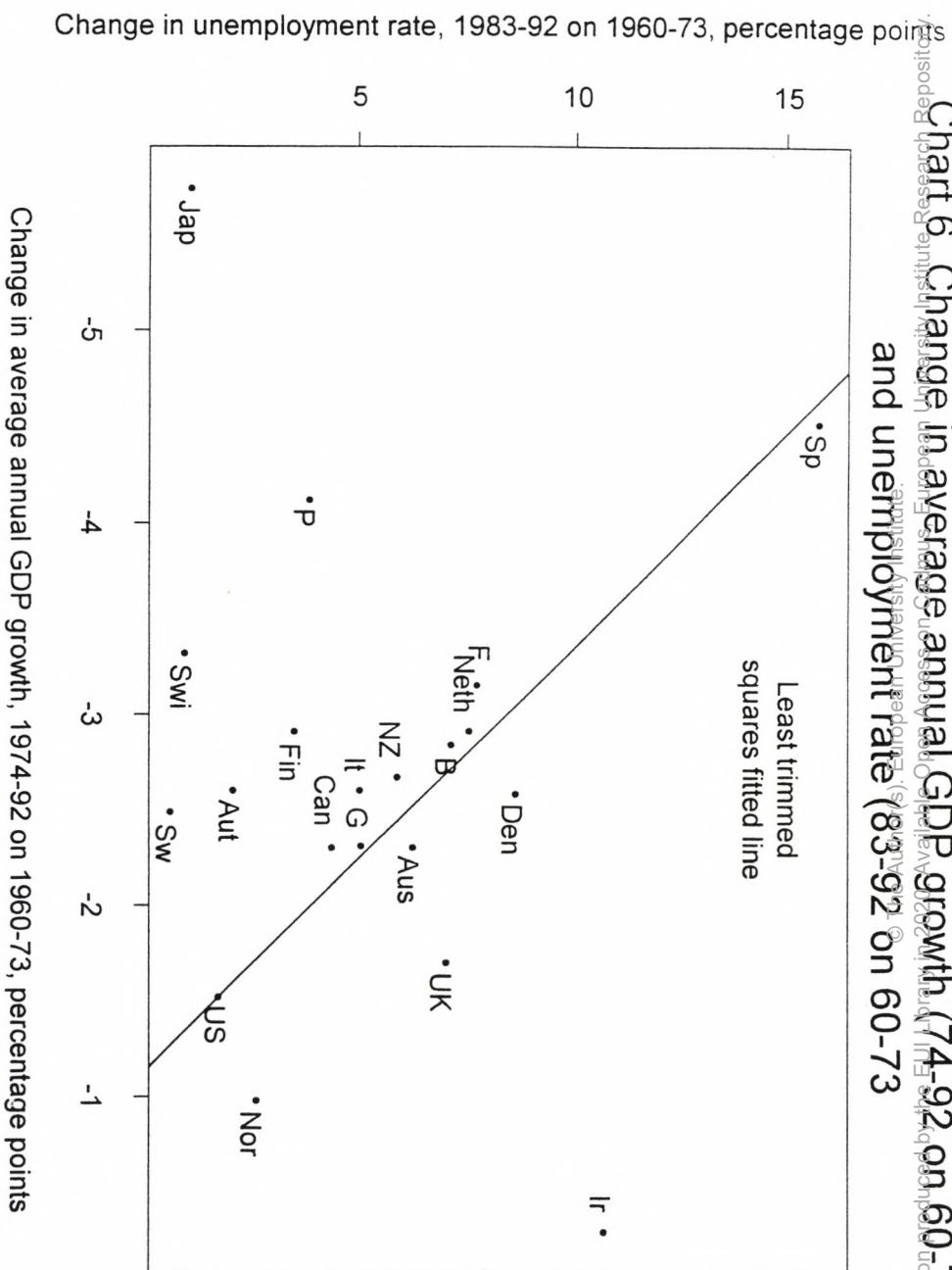


Chart 6 Change in average annual GDP growth (74-92 on 60-73) and unemployment rate (83-92 on 60-73)





# EUI WORKING PAPERS

EUI Working Papers are published and distributed by the  
European University Institute, Florence

Copies can be obtained free of charge  
– depending on the availability of stocks – from:

The Publications Officer  
European University Institute  
Badia Fiesolana  
I-50016 San Domenico di Fiesole (FI)  
Italy

**Please use order form overleaf**

Publications of the European University Institute

To                   The Publications Officer  
European University Institute  
Badia Fiesolana  
I-50016 San Domenico di Fiesole (FI) – Italy  
'Telefax No: +39/55/4685 636  
E-mail: publish@datacomm.iue.it

From               Name .....  
Address.....  
.....  
.....  
.....

- ☐ Please send me a complete list of EUI Working Papers
- ☐ Please send me a complete list of EUI book publications
- ☐ Please send me the EUI brochure Academic Year 1996/97

Please send me the following EUI Working Paper(s):

No, Author       .....  
Title:           .....  
No, Author       .....  
Title:           .....  
No, Author       .....  
Title:           .....  
No, Author       .....  
Title:           .....

Date               .....

Signature         .....



## Working Papers of the Robert Schuman Centre

### **RSC No. 94/1**

Fritz W. SCHARPF  
Community and Autonomy Multilevel  
Policy-Making in the European Union \*

### **RSC No. 94/2**

Paul McALEAVEY  
The Political Logic of the European  
Community Structural Funds Budget:  
Lobbying Efforts by Declining Industrial  
Regions

### **RSC No. 94/3**

Toshihiro HORIUCHI  
Japanese Public Policy for Cooperative  
Supply of Credit Guarantee to Small Firms -  
Its Evolution Since the Post War and Banks'  
Commitment

### **RSC No. 94/4**

Thomas CHRISTIANSEN  
European Integration Between Political  
Science and International Relations Theory:  
The End of Sovereignty \*

### **RSC No. 94/5**

Stefaan DE RYNCK  
The Europeanization of Regional  
Development Policies in the Flemish Region

### **RSC No. 94/6**

Enrique ALBEROLA ILA  
Convergence Bands: A Proposal to Reform  
the EMS in the Transition to a Common  
Currency

### **RSC No. 94/7**

Rosalyn HIGGINS  
The EC and the New United Nations

### **RSC No. 94/8**

Sidney TARROW  
Social Movements in Europe: Movement  
Society or Europeanization of Conflict?

### **RSC No. 94/9**

Vojin DIMITRIJEVIC  
The 1974 Constitution as a Factor in the  
Collapse of Yugoslavia or as a Sign of  
Decaying Totalitarianism

### **RSC No. 94/10**

Susan STRANGE  
European Business in Japan: A Policy  
Crossroads?

### **RSC No. 94/11**

Milica UVALIC  
Privatization in Disintegrating East European  
States: The Case of Former Yugoslavia

### **RSC No. 94/12**

Alberto CHILOSI  
Property and Management Privatization in  
Eastern European Transition: Economic  
Consequences of Alternative Privatization  
Processes

### **RSC No. 94/13**

Richard SINNOTT  
Integration Theory, Subsidiarity and the  
Internationalisation of Issues: The  
Implications for Legitimacy \*

### **RSC No. 94/14**

Simon JOHNSON/Heidi KROLL  
Complementarities, Managers and Mass  
Privatization Programs after Communism

### **RSC No. 94/15**

Renzo DAVIDDI  
Privatization in the Transition to a Market  
Economy

### **RSC No. 94/16**

Alberto BACCINI  
Industrial Organization and the Financing of  
Small Firms: The Case of MagneTek

### **RSC No. 94/17**

Jonathan GOLUB  
The Pivotal Role of British Sovereignty in  
EC Environmental Policy

### **RSC No. 94/18**

Peter Viggo JAKOBSEN  
Multilateralism Matters but How?  
The Impact of Multilateralism on Great  
Power Policy Towards the Break-up of  
Yugoslavia

**RSC No. 94/19**

Andrea BOSCO

A 'Federator' for Europe: Altiero Spinelli and the Constituent Role of the European Parliament

**RSC No. 94/20**

Johnny LAURSEN

Blueprints of Nordic Integration. Dynamics and Institutions in Nordic Cooperation, 1945-72

\* \* \*

**RSC No. 95/1**

Giandomenico MAJONE

Mutual Trust, Credible Commitments and the Evolution of Rules for a Single European Market

**RSC No. 95/2**

Ute COLLIER

Electricity Privatisation and Environmental Policy in the UK: Some Lessons for the Rest of Europe

**RSC No. 95/3**

Giuliana GEMELLI

American Influence on European Management Education: The Role of the Ford Foundation

**RSC No. 95/4**

Renaud DEHOUSSE

Institutional Reform in the European Community: Are there Alternatives to the Majoritarian Avenue? \*

**RSC No. 95/5**

Vivien A. SCHMIDT

The New World Order, Incorporated: The Rise of Business and the Decline of the Nation-State

**RSC No. 95/6**

Liesbet HOOGE

Subnational Mobilisation in the European Union

**RSC No. 95/7**

Gary MARKS/Liesbet HOOGE/Kermit BLANK

European Integration and the State

**RSC No. 95/8**

Sonia LUCARELLI

The International Community and the Yugoslav Crisis: A Chronology of Events \*

**RSC No. 95/9**

A Constitution for the European Union?

*Proceedings of a Conference, 12-13 May 1994, Organized by the Robert Schuman Centre with the Patronage of the European Parliament*

**RSC No. 95/10**

Martin RHODES

'Subversive Liberalism': Market Integration, Globalisation and the European Welfare State

**RSC No. 95/11**

Joseph H.H. WEILER/ Ulrich HALTERN/ Franz MAYER

European Democracy and its Critique - Five Uneasy Pieces

**RSC No. 95/12**

Richard ROSE/Christian HAERPFER

Democracy and Enlarging the European Union Eastward

**RSC No. 95/13**

Donatella DELLA PORTA

Social Movements and the State: Thoughts on the Policing of Protest

**RSC No. 95/14**

Patrick A. MC CARTHY/Aris ALEXOPOULOS

Theory Synthesis in IR - Problems & Possibilities

**RSC No. 95/15**

Denise R. OSBORN

Crime and the UK Economy

**RSC No. 95/16**

Jérôme HENRY/Jens WEIDMANN

The French-German Interest Rate Differential since German Unification: The Impact of the 1992-1993 EMS Crises

**RSC No. 95/17**

Giorgia GIOVANNETTI/Ramon MARIMON

A Monetary Union for a Heterogeneous Europe

**RSC No. 95/18**

Bernhard WINKLER

Towards a Strategic View on EMU - A Critical Survey

**RSC No. 95/19**  
Joseph H.H. WEILER  
The State "über alles"  
Demos, Telos and the German Maastricht  
Decision

**RSC No. 95/20**  
Marc E. SMYRL  
From Regional Policy Communities to  
European Networks: Inter-regional  
Divergence in the Implementation of EC  
Regional Policy in France

**RSC No. 95/21**  
Claus-Dieter EHLERMANN  
Increased Differentiation or Stronger  
Uniformity \*

**RSC No. 95/22**  
Emile NOËL  
La conférence intergouvernementale de 1996  
Vers un nouvel ordre institutionnel

**RSC No. 95/23**  
Jo SHAW  
European Union Legal Studies in Crisis?  
Towards a New Dynamic

**RSC No. 95/24**  
Hervé BRIBOSIA  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on Belgium*

**RSC No. 95/25**  
Juliane KOKOTT  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on Germany*

**RSC No. 95/26**  
Monica CLAES/Bruno DE WITTE  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on the Netherlands*

**RSC No. 95/27**  
Karen ALTER  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Explaining National Court Acceptance of  
European Court Jurisprudence: A Critical  
Evaluation of Theories of Legal Integration*

**RSC No. 95/28**  
Jens PLÖTNER  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on France*

**RSC No. 95/29**  
P.P. CRAIG  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on the United Kingdom*

**RSC No. 95/30**  
Francesco P. RUGGERI LADERCHI  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on Italy*

**RSC No. 95/31**  
Henri ETIENNE  
The European Court and National Courts -  
Doctrine and Jurisprudence: Legal Change  
in its Social Context  
*Report on Luxembourg*

**RSC No. 95/32**  
Philippe A. WEBER-PANARIELLO  
The Integration of Matters of Justice and  
Home Affairs into Title VI of the Treaty on  
European Union: A Step Towards more  
Democracy?

**RSC No. 95/33**  
Debra MATIER  
Data, Information, Evidence and Rhetoric in  
the Environmental Policy Process:  
The Case of Solid Waste Management

**RSC No. 95/34**  
Michael J. ARTIS  
Currency Substitution in European Financial  
Markets

**RSC No. 95/35**  
Christopher TAYLOR  
Exchange Rate Arrangements for a Multi-  
Speed Europe

**RSC No. 95/36**  
Iver B. NEUMANN  
Collective Identity Formation: Self and  
Other in International Relations



**RSC No. 95/37**

Sonia LUCARELLI

The European Response to the Yugoslav Crisis: Story of a Two-Level Constraint

**RSC No. 95/38**

Alec STONE SWEET

Constitutional Dialogues in the European Community \*

**RSC No. 95/39**

Thomas GEHRING

Integrating Integration Theory:  
Neofunctionalism and International Regimes

**RSC No. 95/40**

David COBHAM

The UK's Search for a Monetary Policy:  
In and Out of the ERM

\* \* \*

**RSC No. 96/1**

Ute COLLIER

Implementing a Climate Change Strategy in  
the European Union: Obstacles and  
Opportunities

**RSC No. 96/2**

Jonathan GOLUB

Sovereignty and Subsidiarity in EU  
Environmental Policy

**RSC No. 96/3**

Jonathan GOLUB

State Power and Institutional Influence in  
European Integration: Lessons from the  
Packaging Waste Directive

**RSC No. 96/4**

Renaud DEHOUSSE

Intégration ou désintégration? Cinq thèses  
sur l'incidence de l'intégration européenne  
sur les structures étatiques

**RSC No. 96/5**

Jens RASMUSSEN

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*Risk Management Issues - Doing Things  
Safely with Words: Rules and Laws*

**RSC No. 96/6**

Olivier GODARD

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*Social Decision-Making under Conditions of  
Scientific Controversy, Expertise and the  
Precautionary Principle*

**RSC No. 96/7**

Robert HANKIN

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*The Cases of Food and Pharmaceuticals*

**RSC No. 96/8**

Ernesto PREVIDI

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*L'organisation des responsabilités publiques  
et privées dans la régulation européenne des  
risques: un vide institutionnel entre les  
deux?*

**RSC No. 96/9**

Josef FALKE

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*The Role of Non-governmental  
Standardization Organizations in the  
Regulation of Risks to Health and the  
Environment*

**RSC No. 96/10**

Christian JOERGES

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*Scientific Expertise in Social Regulation and  
the European Court of Justice: Legal  
Frameworks for Denationalized Governance  
Structures*

**RSC No. 96/11**

Martin SHAPIRO

Integrating Scientific Expertise into  
Regulatory Decision-Making.  
*The Frontiers of Science Doctrine: American  
Experiences with the Judicial Control of  
Science-Based Decision-Making*

**RSC No. 96/12**

Gianna BOERO/Giuseppe TULLIO

Currency Substitution and the Stability of  
the German Demand for Money Function  
Before and After the Fall of the Berlin Wall

**RSC No. 96/13**

Riccardo MARSELLI/Marco VANNINI  
Estimating the Economic Model of Crime in  
the Presence of Organised Crime: Evidence  
from Italy

**RSC No. 96/14**

Paul DE GRAUWE  
The Economics of Convergence Towards  
Monetary Union in Europe

**RSC No. 96/15**

Daniel GROS  
A Reconsideration of the Cost of EMU  
The Importance of External Shocks and  
Labour Mobility

**RSC No. 96/16**

Pierre LASCOUMES/Jérôme VALLUY  
Les activités publiques conventionnelles  
(APC): un nouvel instrument de politique  
publique? L'exemple de la protection de  
l'environnement industriel

**RSC No. 96/17**

Sharmila REGE  
Caste and Gender: The Violence Against  
Women in India

**RSC No. 96/18**

Louis CHARPENTIER  
L'arrêt "Kalanke", expression du discours  
dualiste de l'égalité

**RSC No. 96/19**

Jean BLONDEL/Richard SINNOTT/Palle  
SVENSSON  
Institutions and Attitudes: Towards an  
Understanding of the Problem of Low  
Turnout in the European Parliament  
Elections of 1994

**RSC No. 96/20**

Keith BLACKBURN/Lill HANSEN  
Public Policy and Economic Growth in an  
Imperfectly Competitive World of  
Interdependent Economies

**RSC No. 96/21**

John ARROWSMITH  
Pitfalls on the Path to a Single European  
Currency

**RSC No. 96/22**

Roel M.W.J. BEETSMA/A. Lans  
BOVENBERG  
Does Monetary Unification Lead to  
Excessive Debt Accumulation?

**RSC No. 96/23**

Margaret LEVI  
A State of Trust

**RSC No. 96/24**

Lorenzo BINI SMAGHI  
How Can the ECB be Credible?

**RSC No. 96/25**

Olivier FILLIEULE  
Police Records and the National Press in  
France. Issues in the Methodology of Data-  
Collection from Newspapers

**RSC No. 96/26**

Peter H. SCHUCK  
The Re-evaluation of American Citizenship

**RSC No. 96/27**

Peter ROBINSON  
The Role and Limits of Active Labour  
Market Policy

**RSC No. 96/28**

Sasha BAILLIE  
The Seat of the European Institutions: An  
Example of Small State Influence in  
European Decision-making

**RSC No. 96/29**

Neil WINN  
The Limits of International Organisation  
Leadership? European Crisis Management in  
the 1980s and the Inherent Tension Between  
Bilateralism and Collectivism

**RSC No. 96/30**

Paul ORMEROD  
Unemployment: A Distributional  
Phenomenon







