Employment performance, macroeconomy and labour markets

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Main Findings

1 Unemployment rate is not an overall indicator of labour market performance and needs to be combined with other indicators, such as job creation. Depending on the selected indicator, the ranking of the countries changes.

2 Relative employment performance reproduces quite precisely the relative rhythms of growth. Therefore, macroeconomic factors greatly over-determine the workings of labour markets.

3 There is no univocal link between wage moderation, which is supposed to measure labour market flexibility, and employment performance. The salary freeze in Germany was accompanied by a rise in the unemployment rate, while the United Kingdom combines the best results in terms of employment and the quickest progression of wages.

4 Productivity gains are the key element of growth dynamism and therefore of employment. While the general trends can be seen in the countries under review, developments differ largely from one country to the next, particularly as regards the relative growth of GDP and productivity.

5 The labour force participation rate is a key variable that alters the effect of job creation on the unemployment rate. It appears to clearly correlate with working time: in the countries where working time has dropped the most, the participation rate has risen the most.

6 Links between productivity and wages follow different profiles from one country to the next, if we introduce a sectoral dimension enabling exposed and sheltered sectors to be distinguished. The extent to which labour market workings enable these major sectors to disconnect from each other influences overall employment performance.

7 Public services employment makes a major and different contribution in the four countries to the progression of total employment.

8 The institutional indicators used to describe the workings of the labour markets do not enable a solid link with employment performance to be established. They tend to become virtually meaningless when macroeconomic indicators are introduced amongst the explanatory variables.

9 In particular, there is no transversal link between the degree of flexibility and employment performance of each of the countries.

10 The specific nature of the national models is clear to see when we go beyond a transversal statistical comparison methodology. The type of insertion in the global market and the type of relations between the social partners play an equally if not more important role than labour market reforms.

11 Each of the countries exhibits specific characteristics, which can be briefly summarised by running through the salient facts developed in each of the chapters. Germany is experiencing a debate on the compatibility of insertion in the global market and the long-term future of the social model. France is marked by a strong opposition between contradictory diagnostics, making any form of consensus difficult to obtain. The United Kingdom is an example of a specific mix between a good international insertion and a policy of accompaniment of flexibility. Finally, Sweden follows a different path, basing the quality of the social model on industrial performance.

12 One of the main conclusions of this study is that we cannot deal with the European countries by referring to a universal target standard. It is therefore impossible to set out "one size fits all" recommendations that do not take into account the economic environment and the reality of employment relations in each country.

13 This diversity calls into question the coherence of European decisions. The countries occupy different positions in the global market: the specialization of France is of worse quality than that of Germany, which combines its supremacy in capital goods with the use of international sub-contracting. The United Kingdom benefits from its considerable financial sector and its own energy resources, while Sweden relies on its industrial "champions". In these conditions, it is difficult to implement cooperative policies, as demonstrated by the recourse to VAT in Germany and soon in France.

14 Rather than seeking to conform to a single model, labour market reforms should take this diversity into account, and target forms of harmonisation, which are not based on a single rule. They should enable each country to consolidate its social model rather than setting off a race to the bottom. However, this is a more difficult path to follow than a general downgrading of the social models.

This transversal chapter aims to examine the relative role of macroeconomic and institutional factors on the employment performance of each country. It contains four sections.

The first section contains a comparative overview of these performances using a range of indicators, instead of just using the unemployment rate, in order to study the relative importance of economic and demographic factors.

The second section focuses on the links between productivity and wage formation. Indeed productivity is the key factor behind economic dynamism, while salary progression is supposed to define the employment content of growth.

The third section introduces a sectoral dimension and seeks to distinguish between sectors, which are exposed to international competition, and sectors, which are relatively protected. The links between these two major sectors play a key role in the general employment dynamic.

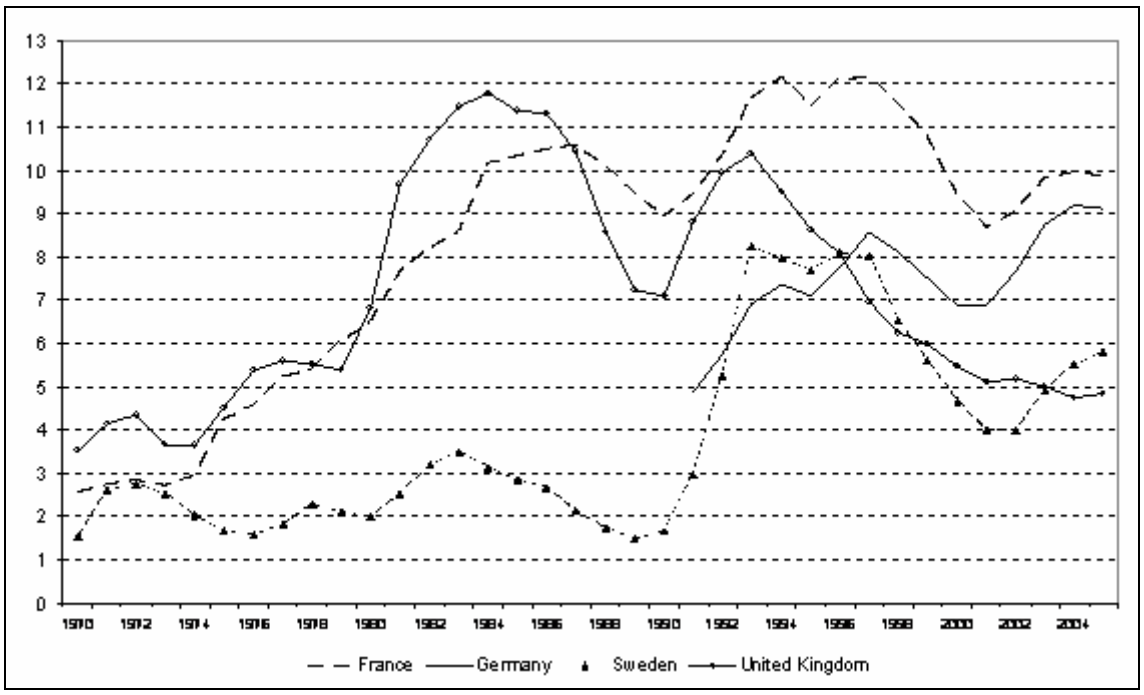
The fourth section examines links between employment performance and institutional variables, which describe the workings of the labour market.

1 Employment performance

Employment performance indicators

The indicator most frequently used to measure employment performance is the unemployment rate. From this angle, the United Kingdom is well ahead of the other three countries, recording a four-point unemployment rate drop between 1991 and 2005. Over the same period, the unemployment rate increased significantly in Germany (over four points), fluctuated considerably in Sweden, and remained at more or less the same level in France (see Figure 1).

Figure 1. Unemployment Rate



Source: OECD

The example of Sweden shows that this comparison poses methodological problems as regards the choice of period. However, this is also the case for the selected indicators. The unemployment rate is not the only way of measuring labour market dynamism, the function of which is, after all, to create jobs. It is therefore legitimate to examine job creation potential over a given period. Using this criterion, the rankings of the four countries change considerably (see Table 1). Over the period in question, employment remained virtually stable in Germany and Sweden (with the countries having different profiles), which fits with the unemployment rate rise recorded in the two countries. On the

other hand, the comparison between France and the United Kingdom shows a paradox, as both these countries experienced a very different unemployment rate progression, while they created the same proportion of jobs.

Table 1. Indicators of employment performances

	France	Germany	Sweden	United Kingdom
Employment 1991-2005	109.6	100.3	96.1	109.9
Unemployment rate				
1991	9.5	4.9	3.1	8.8
2005	9.9	9.1	5.8	4.8
variation	0.4	4.2	2.9	- 4.0
Employment rate				
1991	60.2	69.3	81.5	70.0
2005	62.0	68.0	73.4	72.3
variation	1.8	- 1.3	- 8.1	2.3
Annual rate of growth 1991-2005	1.9	1.4	2.3	2.7
Total working hours	0.0	- 7.1	- 1.4	4.2

Source: OECD

The GDP growth rate may explain these differences. The United Kingdom benefited from quicker growth (2.7% per year) but did not create any more jobs than France, whose growth rate only reached 1.9% per year. Sweden, with a growth rate of 2.3%, did not create any new jobs and saw its unemployment rate rise. The slight growth observed in Germany fits with its performance as regards job creation and unemployment rate.

Employment rate is another useful indicator, which measures the proportion of the working age population in employment. Level and progression must be distinguished. In terms of level, both Sweden and the United Kingdom exceeded the 70% objective set by the Lisbon Strategy, but the employment rate dropped considerably in Sweden while it rose in the United Kingdom. It logically dropped in Germany, while it rose in France despite the unemployment rate remaining the same.

A last possible indicator is working time. Once again, the comparison between France and the United Kingdom is illuminating: for equivalent levels of job creation, the volume of work remained constant in France, while it increased by 4% over the 1991-2005 period in the United Kingdom. The impact of working hours on employment progression

can be seen here, which also explains some of the differential progression in Sweden and Germany.

Overall, performance assessment leads to a ranking, which can vary depending on the selected criterion (see Table 2).

Table 2. Employment performance assessment

Unemployment rate	Employment growth
1. United Kingdom	1. United Kingdom
2. Sweden	2. France
3. France	3. Germany
4. Germany	4. Sweden
Employment rate	**Total working hours**
1. United Kingdom	1. United Kingdom
2. France	2. France
3. Germany	3. Sweden
4. Sweden	4. Germany

In order to obtain a better understanding of how each country achieves its performances, an accounting breakdown will be used, enabling the different factors for consideration to appear, in order to explain employment and unemployment progression. The economic variables are the growth of GDP, hourly productivity and working time, to which a demographic variable, the working age population, will be added. The following overall breakdown is obtained (see Box 1) which will be used in greater detail further on:

Box 1

Unemployment rate breakdown

This breakdown will focus on the complement to unemployment rate (1-U), which will be called *active employment rate.* It relates employment to labour force and therefore differs from the employment rate, which links it to the working age population. This breakdown will firstly bring into play employment determinants: GDP, hourly productivity and working time. So we therefore have:

$$N = Q / (PR \times WT)$$

N	employment
PR	hourly productivity
Q	GDP
WT	working time

Labour force determinants are then introduced. They can be expressed in the following way:

$$LF = ACTI \times POPAGE$$

ACTI	participation rate
LF	labour force
POPAGE	working age population

By combining these two relationships, the following overall breakdown is obtained:

$$1\text{-}U = \frac{Q}{PR \cdot WT \cdot ACTI \cdot POPAGE}$$

ACTI	participation rate
LF	labour force
N	employment
POPAGE	working age population
PR	hourly productivity
Q	GDP
U	employment rate
WT	working time

Growth and productivity: the employment content of growth

Growth is a key determinant of job creation, but it must be linked to hourly productivity. A given level of growth will not create jobs unless it is accompanied by lower productivity progression. The difference between the two will be called *net growth*. The four countries under analysis have very different configurations as regards this aspect (see Table 3).

Table 3. Productivity and growth

	GDP	productivity	net growth	working time	employment
France	1.9	1.9	0.0	-0.7	0.7
Germany	1.4	1.9	-0.5	-0.5	0.0
Sweden	2.3	2.4	-0.1	0.2	-0.3
United Kingdom	2.7	2.4	0.3	-0.4	0.7

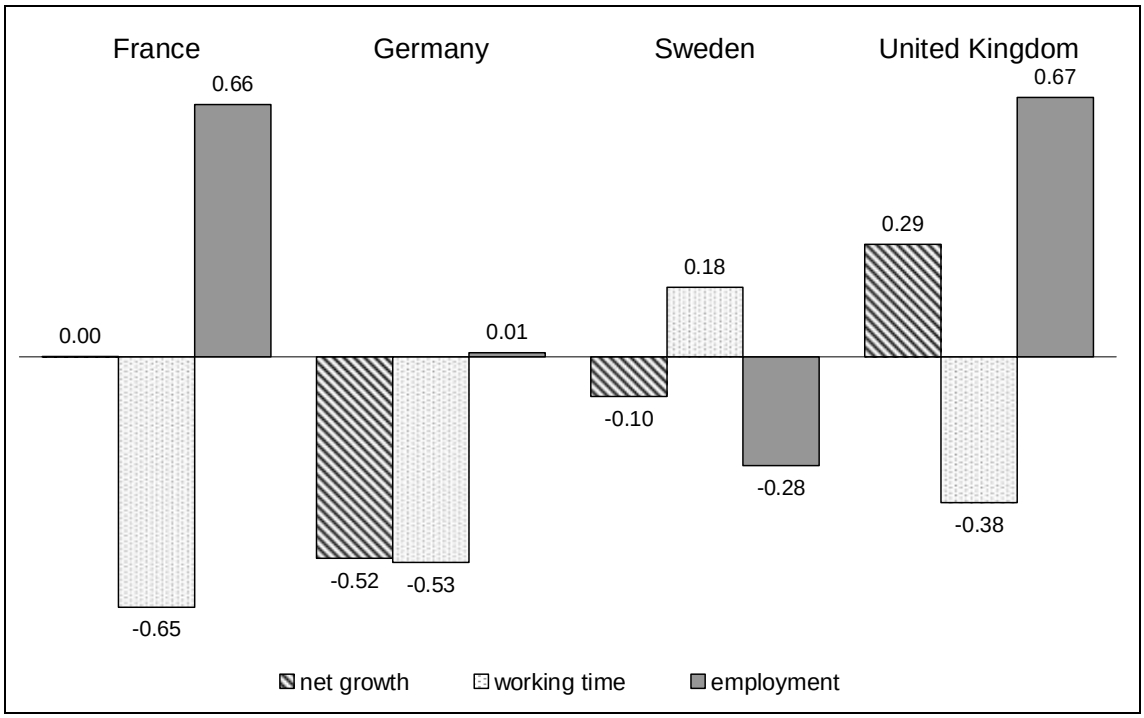
Source: OECD

France provides a particularly illustrative example, as GDP and hourly productivity progressed at exactly the same annual rate of 1.9% between 1991 and 2005. The associated employment potential over this period is therefore zero. This is more or less the case for Sweden. On the other hand, the United Kingdom has benefited from the quickest rate of GDP growth, and quicker productivity progression than the other countries, although productivity has progressed less than GDP: this growth therefore has a higher employment content. Germany has experienced the exact opposite, as productivity has increased more quickly than GDP, having a very negative effect on employment (-0.5% per year, making for a 7% job loss over the period).

Employment potential (growth – hourly productivity) is therefore zero or negative in all the countries apart from the United Kingdom. At a constant working time rate, only the United Kingdom would have been able to create jobs. Workforce progression therefore depends on working time. New differences between the countries can be observed. Sweden is a special case as working time increased and worsened the effect of net growth on employment. In the other countries, the reduction in working time has had a positive impact on employment. In Germany, this reduction compensates for the employment shortfall

linked to net growth and enables the level of employment to be maintained. In France, all the jobs created correspond to the reduction in working time.

Figure 2. Employment, growth and working time



Source: OECD

Figure 2 summarises these very different employment configurations in the four countries, where the reduction of working time has played a major role. In France, the reduction of working time accounts for all jobs created, for zero net growth. In Germany, it compensates for zero net growth so as to stabilise the number of jobs. In Sweden, it increases the effect of slightly negative net growth on employment. Finally, in the United Kingdom it combines with positive net growth, leading to job creation levels equivalent to that of France. In the light of the key role played by this variable, it is necessary to study the details of its progression in greater depth.

Working time

The reduction in working time can be obtained in two ways. It can result from a generalised reduction in full-time working time or from an increase in part-time working. The overall progression can be attributed to these two effects, using two additional pieces of data: the proportion of employees working part-time, and the average part-time working time in relation to the average full-time working time (Box 2).

Box 2

Working time breakdown

The total working time is broken down into hours carried out by full-time employees and hours carried out by part-time employees:

$$N \times WT = Nf \times WFT + Np \times WPT$$

N	employment
Nf	full-time employees
Np	part-time employees
WFT	full-time working time
WPT	part-time working time
WT	working time

To successfully carry out this breakdown, two additional pieces of information are required. The first piece of information is the share of part-time working in total employment and the second part-time working time in relation to full-time working time. The previous formula is therefore expressed as:

$$WT = (1 - Np\%)\, WFT + Np\% \,.\, \theta.WFT$$

Hence:

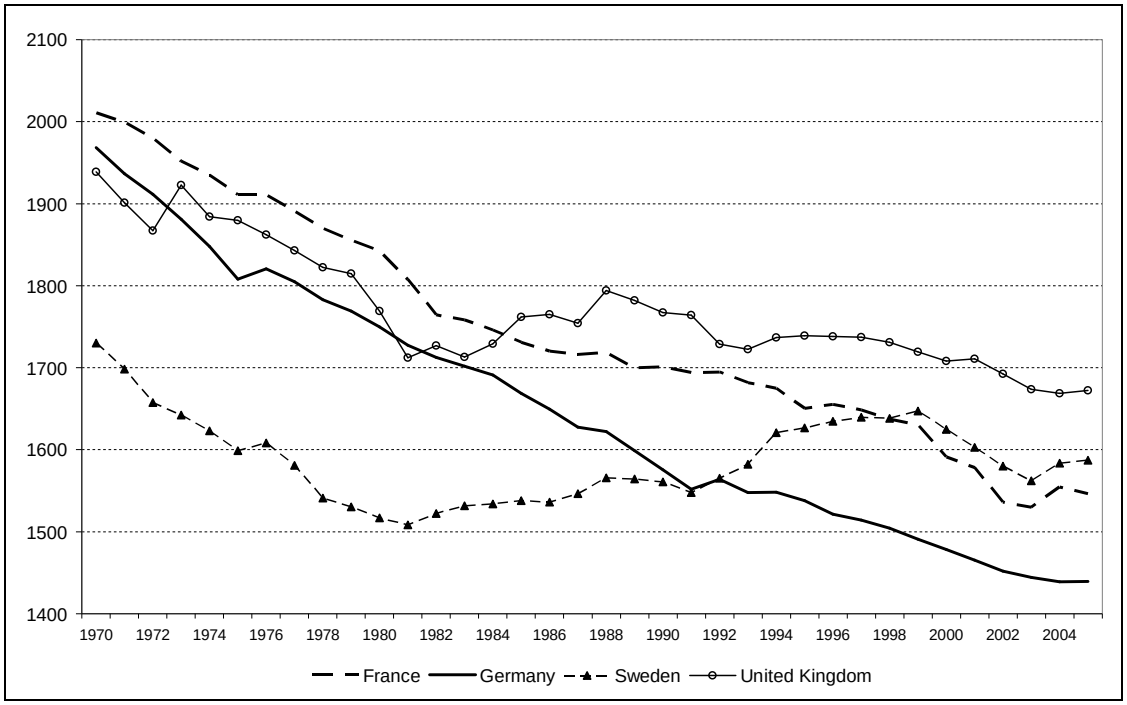
$$WT = [\, 1 - (1 - \theta)\, Np\%]\, WFT$$

and finally:

$$WT = WFT \times RPT$$

Np%	share of part-time working
RPT	recourse to part-time working index = [1 - (1 - θ) Np%]
WFT	full-time working time
WPT	part-time working time
WT	working time
θ	share of part-time working time in relation to full-time working time

Figure 3. Working time

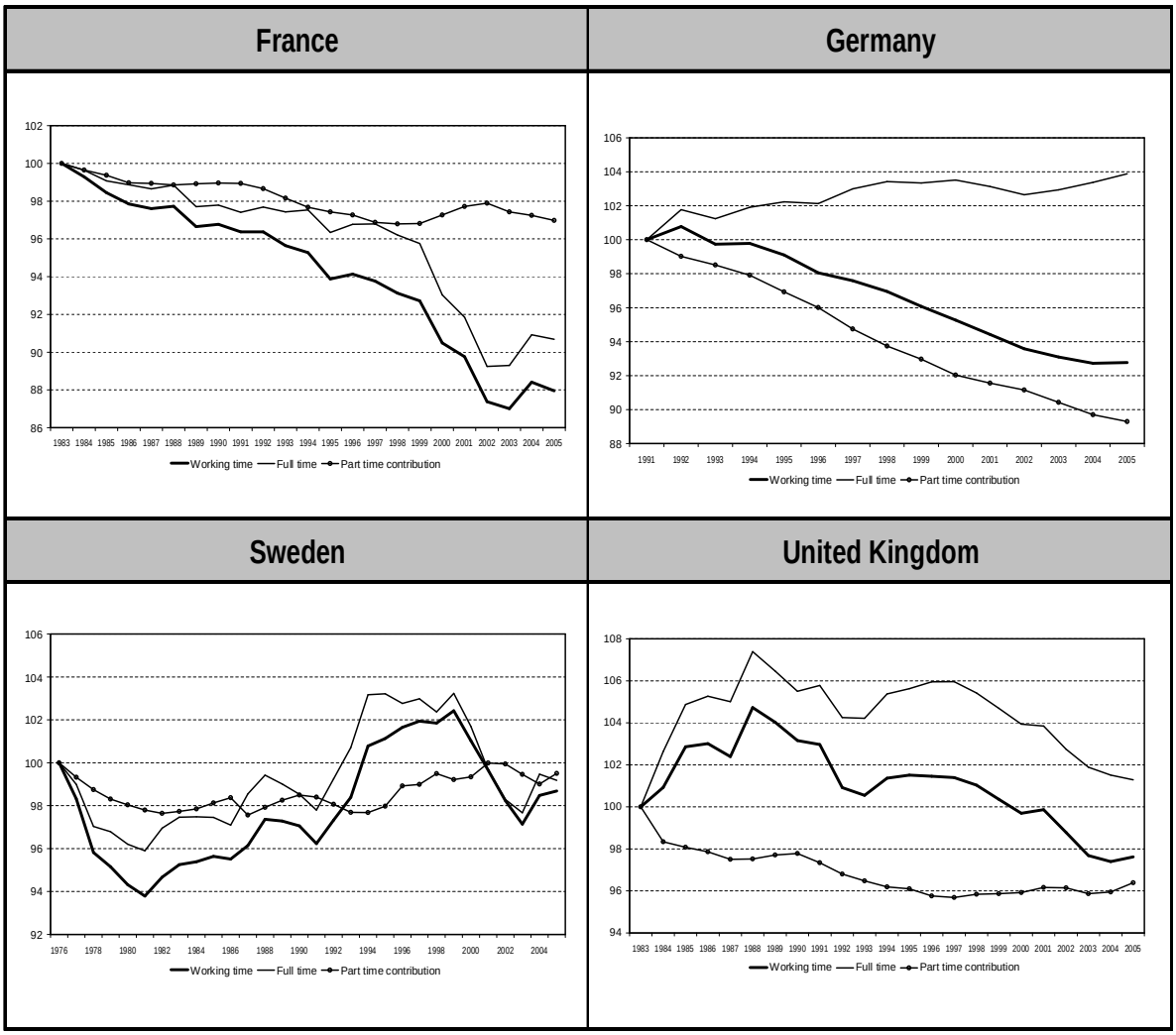


Source: OECD

Working time dropped in the four countries until the beginning of the 1980s. This continued in Germany and France, with a steep drop linked to the 35-hour working week. In the United Kingdom and Sweden, the rhythm stabilised and even increased during the 1980s. The relative position of the two countries changed: working time in Sweden was significantly lower than in France, but the two countries are now at the same level.

These different progressions have not all been obtained in the same way (see Figure 4). Germany has a specific configuration: full-time working time is slightly increasing and it is the progression of part-time working which alone explains the drop in average working time. Part-time working also plays an important role in the United Kingdom, but plays a more minor role in France and Sweden (see Table 4).

Figure 4. Working Time Progression



Source: OECD

Table 4. Full-time and part-time working time

	France			Germany			Sweden			United Kingdom		
	1992	2005	change	1992	2005	change	1992	2005	change	1992	2005	change
Working time	1695	1546	-148	1564	1439	-124	1565	1587	22	1729	1672	-56
Full-time working time	1799	1670	-129	1733	1769	36	1763	1762	-1	2001	1944	-57
Part-time working time	963	945	-18	633	630	-3	979	1034	55	773	848	75
Share of part-time work	12.5	17.1	4.6	15.4	28.9	13.5	25.2	24	-1.2	22.1	24.8	2.6
Part-time working time as a % of full-time working	53.5	56.6	3.0	36.5	35.6	-1.0	55.6	58.7	3.1	38.7	43.7	5.0

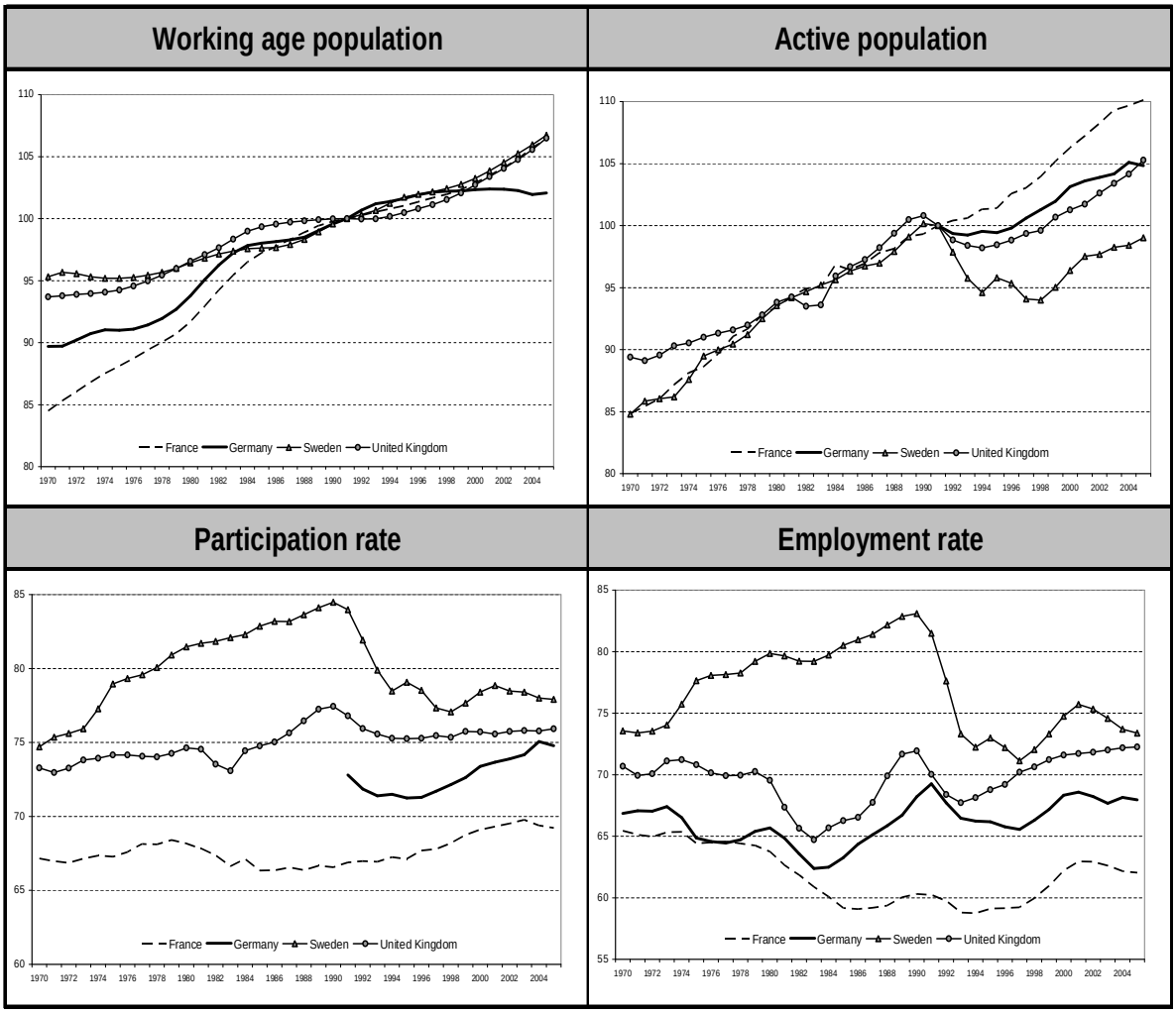
Sources: Eurostat, OECD

Labour force

From the start of the 1990s, the working age population progressed at roughly the same speed in France, Sweden and the United Kingdom, at a rate of around 6% between 1991 and 2005. Progression was lower in Germany (+2%) where the working age population stabilised over the course of a few years.

On the other hand, labour force progression is a lot more differentiated. In the United Kingdom, and even more in Sweden, it is increasing a lot less than the working age population, and even dropped during the 1990s. The labour force participation rate dropped sharply in Sweden (-7.2% between 1991 and 2005) and stayed at more or less the same level in the United Kingdom. On the other hand, Germany and France are characterised by a quicker progression in labour force than in working age population, the effect of which is an increase in labour force participation rate. The differences observed as regards labour force therefore mainly stem from the labour force participation rate (see Figure 5).

Figure 5. Progression of activity in the four countries



An overall view of performance

The breakdown formula will firstly be applied to the 1991-2005 period in a simplified version (see Table 5). The progression of the unemployment rate U (Column 1) is explained using the variation of the active employment rate 1-U (2), which itself is broken down using the information described in Boxes 1 and 2.

For each of the countries, the relative weight of these different components on overall performance can be seen. We will focus here on the first line of the table, which provides information on France between 1991 and 2005. The unemployment rate increased by 0.4 points over that period (Column 1), which corresponds to a drop of 0.5 points in the active employment rate (Column 2).

Table 5. A breakdown of performances 1991-2005

1991-2005	(1) ΔU	(2) 1 - U	(3) Q	(4) 1/PR	(5) 1/WT	(6) 1/ACTI	(7) 1/POPAGE	(8) 1/WFT	(9) 1/RPT
France	0.4	-0.5	29.8	-23.0	9.6	-3.4	-6.0	7.4	2.0
Germany	4.2	-4.5	20.9	-23.2	7.8	-2.6	-2.0	-3.7	12.0
Sweden	2.9	-2.9	36.7	-27.9	-2.5	7.8	-6.3	-1.4	-1.1
United Kingdom	-4.0	4.4	45.2	-28.3	5.5	1.1	-6.1	4.4	1.0

ACTI: participation rate; POPAGE: working age population; PR: hourly productivity; Q: GDP; RPT: recourse to part-time working index; U: employment rate; WFT: full-time working time; WT: working time

- The contributions to the evolution of employment are given in the following columns. Over the whole period, GDP (Column 3) increased by 29.8 points; so employment potential linked to growth will be modulated by two factors: hourly productivity and working time:

- The progression of productivity (Column 4) had a negative 23-point effect on this potential.

- The reduction in working time (Column 5) had a positive effect on employment (reduced by 9.6 points).

- The progression of the labour force appears in Columns 6 and 7:

- The labour force participation rate (Column 6) increased, with a negative 3.4-point effect on the active employment rate.

- The working age population (Column 7) also had a negative effect of 6.0 points on the active employment rate.

- Finally, columns 8 and 9 enable a breakdown of the progression of working time to be made. The drop in full-time working time made a positive contribution of 7.4 points to the active employment rate, to which a positive contribution of 2 points due to part-time working is added.

This breakdown can obviously not be used as a causal relationship due to the relationships, which may exist between each of its components, but it does have the merit of highlighting how employment performance is achieved in each country. It then enables an overall typology to be created, using the previous observations, from which two main trends emerge. These trends concern relations between productivity and the growth of GDP on the one hand, and working time and the labour force participation rate, on the other (see Figure 6A).

The first relationship between productivity and growth has already been pinpointed and had led to a notion of net growth being put forward. This means that the faster the growth in GNP, the greater the productivity gains. In other words, any advantages gained as regards employment due to increased growth are automatically reduced by the higher productivity gains, which accompany them. The direction of this relation is difficult to define: a quicker growth is the opportunity to reorganise production and to obtain productivity gains and, on the other hand, a more sustained productivity growth improves competitiveness and enables a higher GDP growth rate to be achieved.

The second relationship concerns relative progressions in the labour force participation rate and working time. This relation is very clear cut for the countries under review (see Figure 6B). The reduction in working time was more marked in the countries, which experienced a quicker progression in the labour force participation rate. This increases when a higher proportion of the working age population joins the labour market. Everything seems to indicate that this additional influx was absorbed by a reduction in average working time. This mechanism exists in all the European countries, apart from the Southern European countries (Italy, Greece and above all Spain) where working time is a lot less affected by an increase in the active population (see Figure 7).

Figure 6. Two main relationships

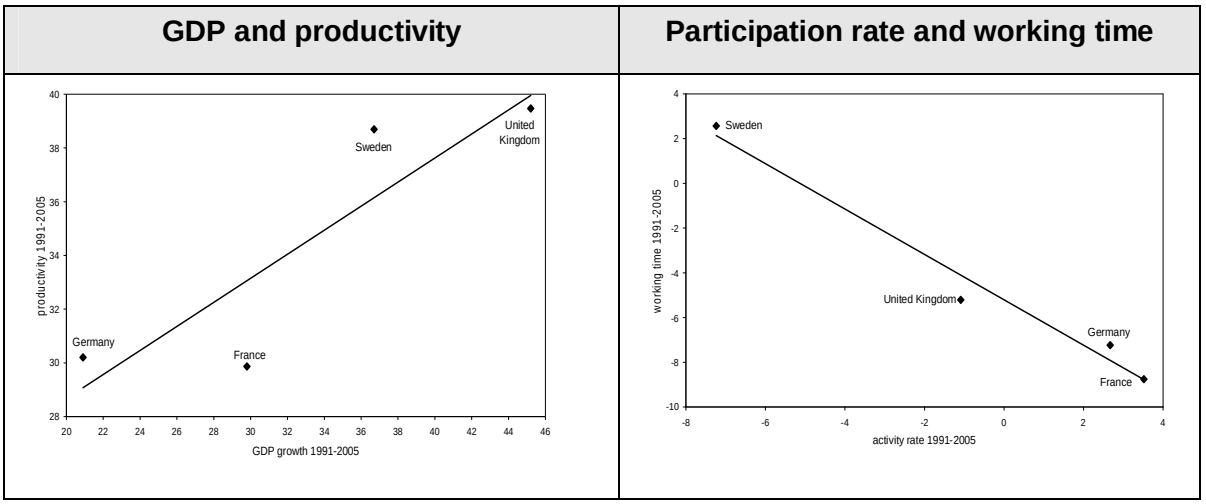
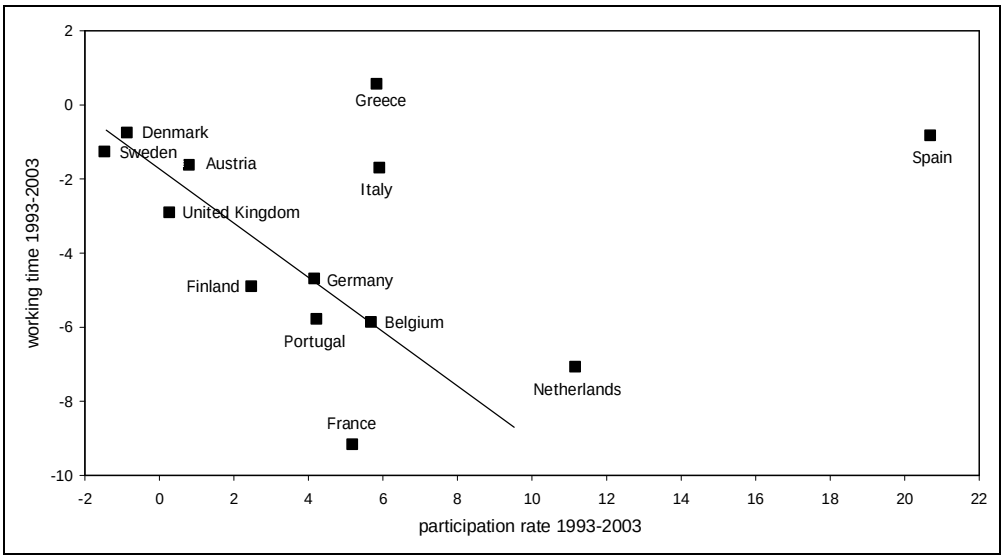


Figure 7. Working time and participation rate



Overall, the employment performances of the four countries, measured using the unemployment rate, can be summarised based on three variables:

- Net growth, in other words the effect of GDP growth minus productivity growth.

- The net pressure of activity, in other words the cumulative effect of the progression of the labour force participation rate and the reduction of working time.

- Demographics, namely the increase in the working age population.

Table 6, in which the most marked features are shaded, enables the comparative assessment to be summarised (see also Figure 8).

Table 6. A breakdown of the unemployment rate 1991-2005

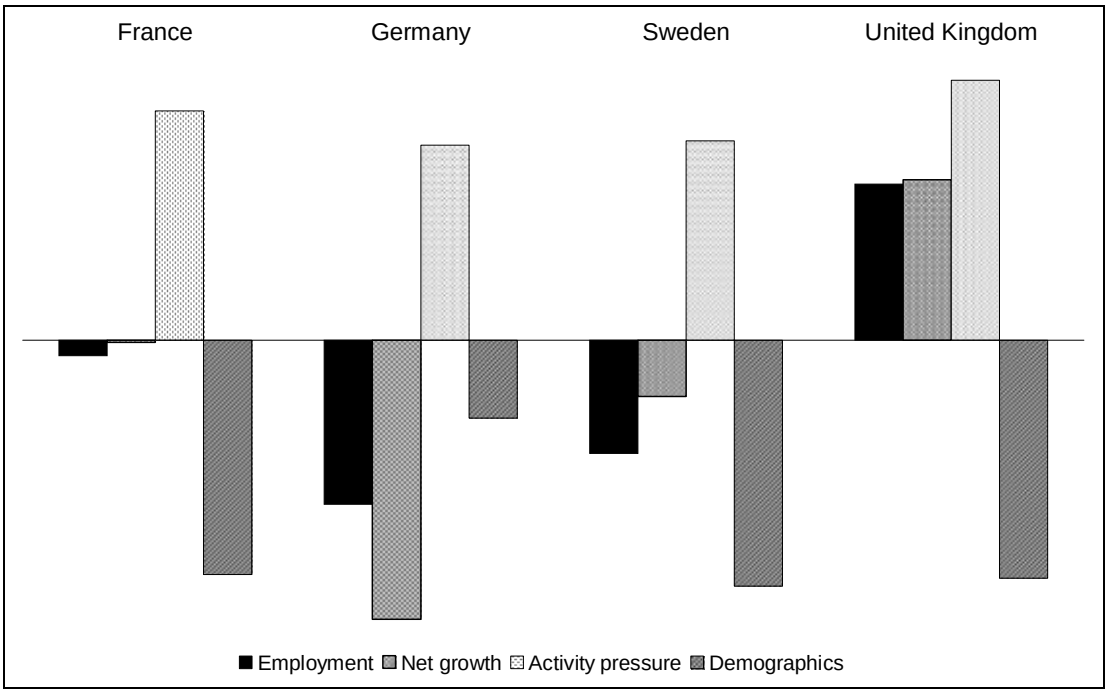
	France	Germany	Sweden	United Kingdom
change in unemployment rate	0.4	4.2	2.9	-4.0
net growth	-0.1	-7.1	-1.4	4.1
net pressure of activity	5.9	5.0	5.1	6.7
démographics	-6.0	-2.0	-6.3	-6.1

- Net growth was highly unfavourable to Germany, where productivity rose more quickly than GDP, and favourable to the United Kingdom due to the country having the opposite configuration.

- The net pressure of activity was favourable to France, thanks mainly to a reduction in working time, as well as to the United Kingdom, due to the moderate progression of the labour force participation rate.

- Demographics were favourable to Germany, where the working age population increased less quickly than in the other three countries.

Figure 8. A breakdown of performances 1991-2005



2 Wage dynamics and productivity

The dominant theory states that labour market workings influence employment performance via wage formation. Labour market rigidity, which structural reforms attempt to reduce, has a negative effect on employment in the sense that it prevents wages from adjusting employment supply and demand in the specific market. The aim of this section is to examine links between wage progression – which can be related to productivity progression – and employment performance in the four countries under review.

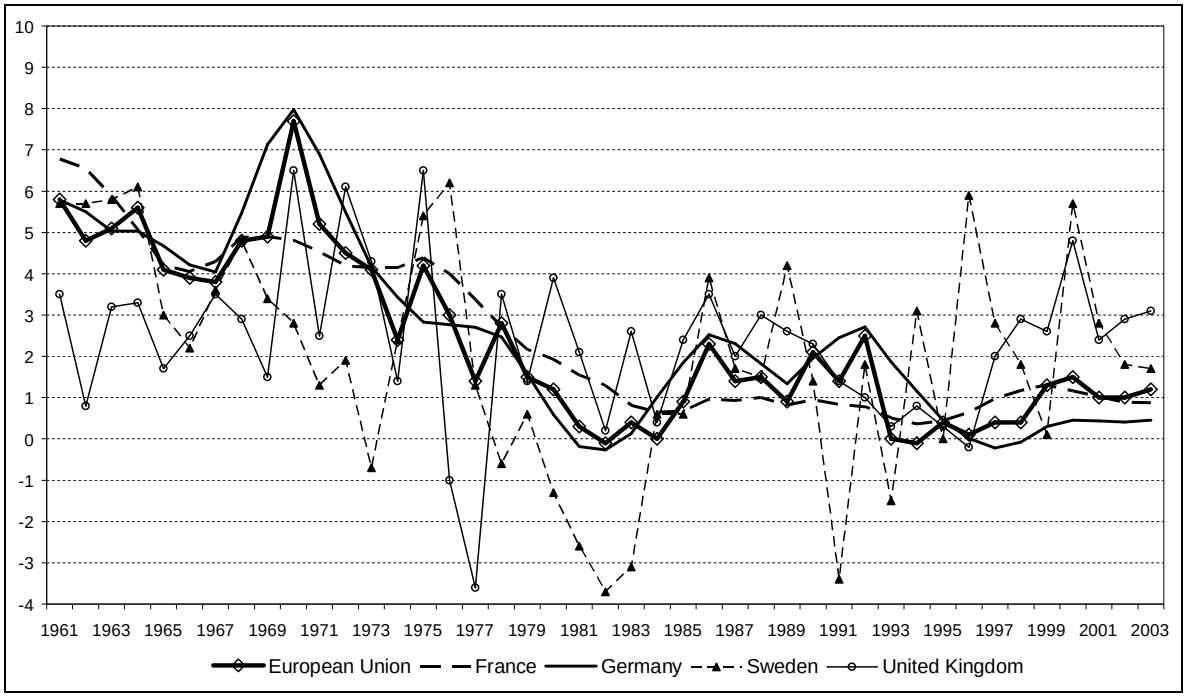
Progression of real wages

European wage dynamics help us to distinguish three major phases:

- A sustained *period of growth* of real wages (1960-73)
- A *period of transition* marked by a slowing down of this progression (1973-1985)
- A *period of stabilisation* based around a moderate growth rate (1985-2003)

While France and Germany follow this profile of average progression relatively closely (see Figure 9), the two other countries under review deviate from it considerably. In the case of the United Kingdom, periodization is a lot less marked and wage progression is steadier in the long-term, so that wage progression is lower than the European average during the years of expansion, and tends to be higher over the recent period. In Sweden, the progression of real wages has fluctuated significantly, but tends, just like the United Kingdom, to be higher than the European average at the end of the period (see Table 7).

Figure 9. Real wages growth rate



Real wages = average wages deflated by producer price.

Source: OECD, *Economic Outlook*

Table 7. Real wage growth

	1960-1973	1973-1985	1985-2003
France	5.0	2.2	0.9
Germany	5.5	1.4	1.2
Sweden	3.5	0.4	1.9
United Kingdom	3.2	1.6	2.1
EU15	4.9	1.5	1.1

Real wages = average wages deflated by producer price.

Source: OECD, Economic Outlook

The progression of wage share

Employment productivity enables real wages to progress in the medium and long-term. However, links between these two variables are nevertheless not stable and help to determine the progression of wage share, at approximately relative prices, which changes in line with the relative development of wages and productivity. Wage share is a good

indicator of income distribution, but also fits with the notion of real unit labour cost, which is considered to be a key component of competitiveness.

At European Union level, wage share has undergone progression marked by the three major phases, which roughly coincide with those characterising real wages (see Figure 10):

- A *period of wage share stability* (1960-73)
- A *period during which the high level was maintained* (1973-1982)
- A *period of underlying decreases* affected by the cyclical position (1983-2003)

During the 1960-1973 period, wages and productivity progressed at the same rate and wage share remained at roughly the same level (see Figure 11). The breakdown, which occurred during the first half of the 1970s, did not affect the two variables in the same way: wage progression continued, and only started going down several years after productivity. This transition phase therefore began with a quick wage share increase, followed by a progressive reversal at the start of the 1980s. It helped to install a new model, in which wages increased at a slower rate than productivity, which itself was slowed down compared to the growth years. The differential between wages and productivity tended to come down, and wage share tended to stabilise at a historically low level.

Figure 10. Wage share

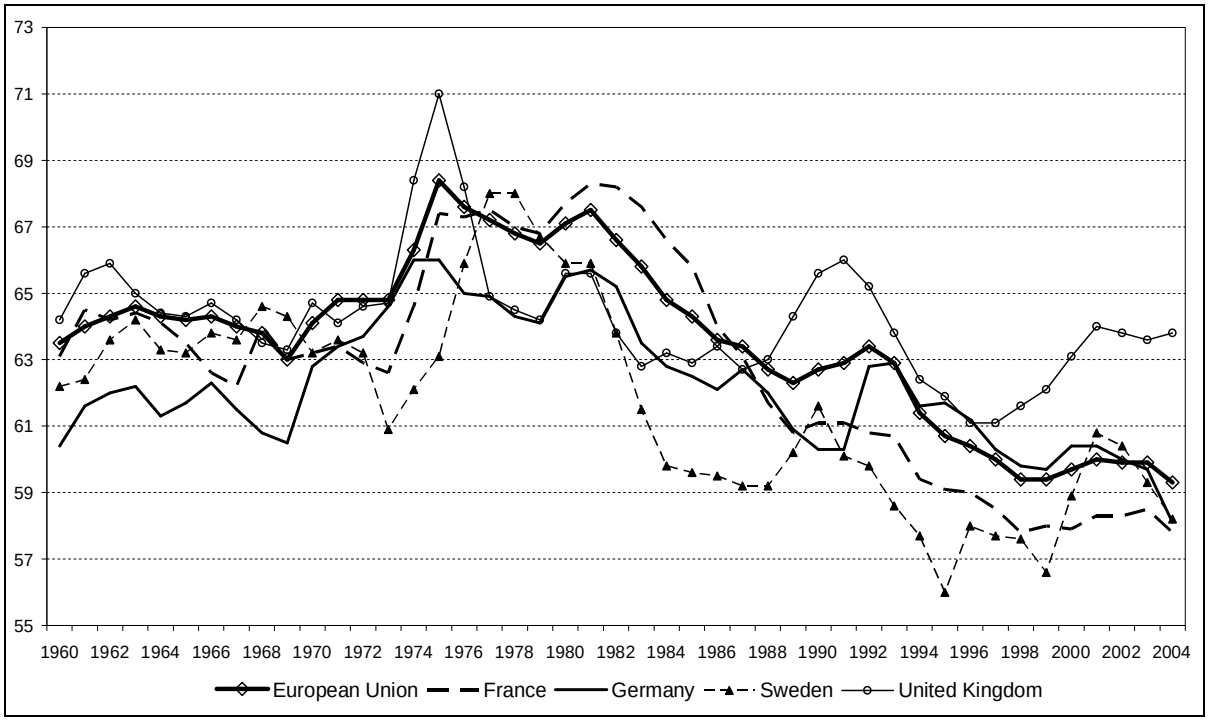
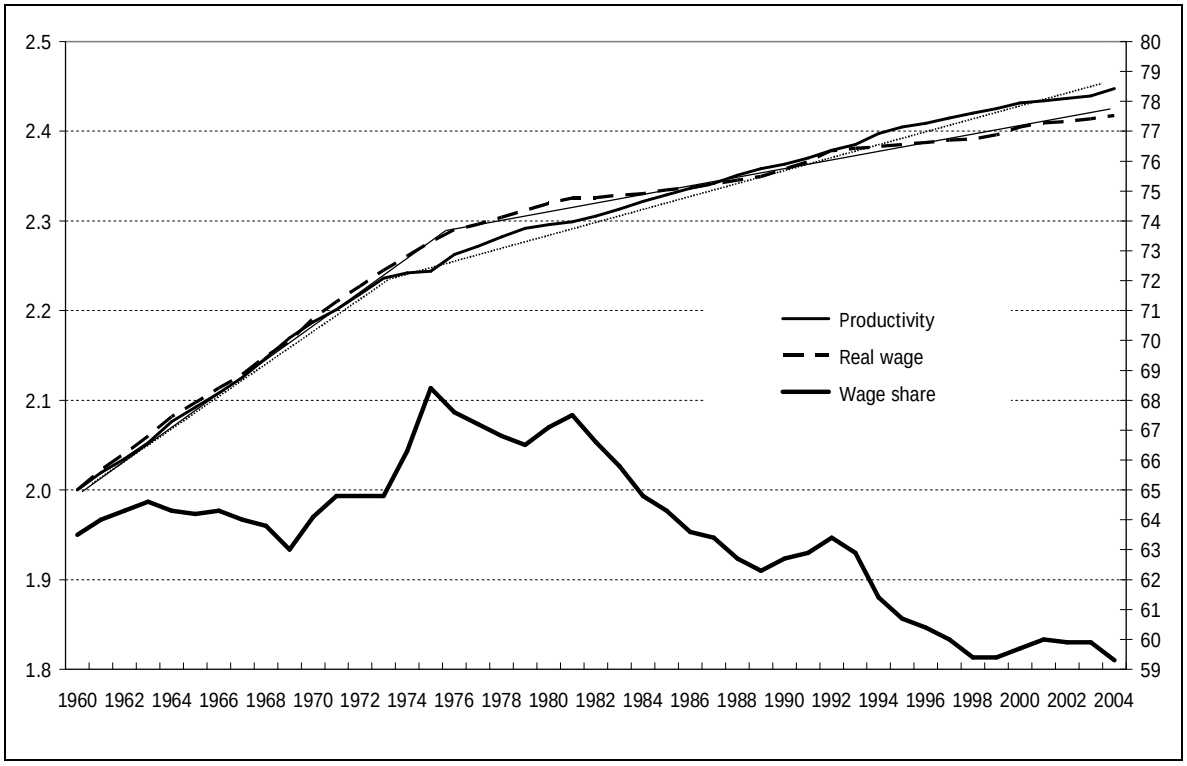


Figure 11. Wage and productivity in the European Union



Productivity: logarithm of GDP per person employed (left-hand scale)

Wages: logarithm of wages per employee, deflated by the price of GDP (left-hand scale)

Adjusted wage share (right-hand scale)

Source: AMECO (2004)

The countries under review do not all fit this general framework. Once again, France and Germany follow it quite closely, but this is not the case for the other two countries. In the United Kingdom, wage share fluctuates around a steady level in the medium-long term. In Sweden, it increases over the recent period (see Table 8).

Table 8. Evolution of the wage share 1962-2002

	wage share					change	
	1962	*1972*	*1982*	*1992*	*2002*	*1962-1982*	*1982-2002*
France	75.7	73.2	79.3	70.2	68.9	3.5	-10.3
Germany	72.4	73.0	73.8	69.1	67.0	1.4	-6.3
Sweden	70.1	71.6	70.6	68.5	72.1	0.5	1.6
United Kingdom	72.4	72,0	73,0	74.6	73.4	0.6	0.3
EU15	73.0	73.2	74.8	71.0	68.5	1.8	-6.3

Adjusted wage share: average wage expressed as a % of GDP per person employed.

Source: AMECO (2004)

Two possible frameworks for the European Union countries can be pinpointed. These can be summarised by comparing, in a stylised manner, the 1970s and the 1980s / 1990s (see Table 9).

Table 9. Continental and Anglo-Saxon models

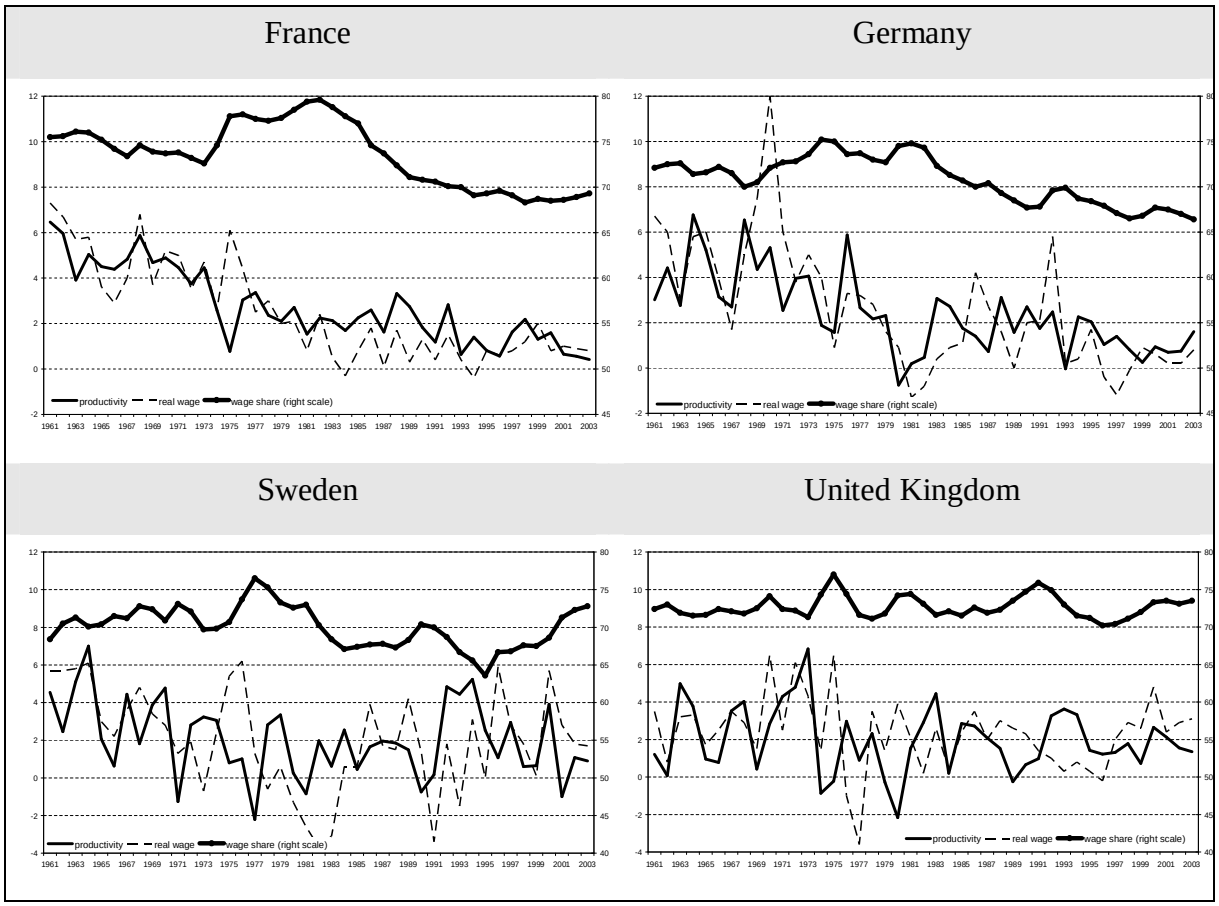
Model	Decade	Productivity	Wages	Wage share
Continental model	1970	Strong growth followed by a drop	Delayed drop	Moderate rise
	1980 & 1990	Slow growth	Marked slowdown	Drop
Anglo-Saxon model	1970	Moderate growth	Moderate growth	Level is maintained
	1980 & 1990	Moderate growth	Moderate growth	Level is maintained

In the *continental* model, events take place as follows. During the 1970s, productivity started to slow down from a high speed of progression (from 5% to 2%). Initially, net wages also slowed down, but to a lesser extent, so that wage share tended to progress a little. The 1980s breakdown set up another model, with employment productivity growing at under 2% and real wages held back even more, so that wage share tended to drop once again (see Figure 12).

In the *Anglo-Saxon* model, there is virtually no difference between the two periods. Over the three decades in question, productivity and wages rose at a steady and approximately equivalent rate, so that wage share did not present any marked trends.

Germany, and especially France, followed the continental model very closely, while the United Kingdom is a textbook example of the Anglo-Saxon model (see Figure 12). Sweden, meanwhile, has a specific configuration. Wage share tended to increase at the end of the 1980s, but this progression was hindered and gave way to a significant drop in wage share in the first half of the 1990s, due to productivity gains not affecting real wages. Then, from 1995 onwards, the situation reversed: real wages increased more quickly than productivity, and wage share went up by close to nine points between 1995 and 2003.

Figure 12. Wage share



Wages and the employment rate

In the continental model, over-shooting of wage slowdown takes place, in the sense that wages are curbed at a level beyond that of productivity. The immediate hypothesis is that this over-reaction was made possible by increased pressure on the labour market, in other words by the rise in the unemployment rate. This idea was tested econometrically using the following simple model:

$w = (a + bU)\, pr + c$

w	Real wages growth rate
pr	Growth rate of productivity
U	Unemployment rate

In this simple model, the coefficient indexing wages to productivity depends upon the unemployment rate, instead of being considered to be stable. This sensitivity enables the relationship of forces in the labour market to be indirectly measured.

The results show that this model is generally valid (see Table 10). However, it is very inadequate for Sweden, where the unemployment rate has very little significance. In the United Kingdom, sensitivity to the unemployment rate does appear, contrary to standard results, but is in fact a conjectural adjustment rather than a change in wage regime.

Table 10. Estimations of the real wages growth rate (1961-2003)

country	pr	t	pr*U	t	R2
France	1.047	10.2	-0.108	-4.3	0.74
Germany	1.169	1.7	-0.155	-3,5	0.65
Sweden	0.635	2.4	-0.059	-1.2	0.09
United Kingdom	0.491	2.4	-0.064	-2.1	0.10
European Union	1.193	12.9	-0.146	-5.4	0.80

This first analysis must nevertheless be clarified by carefully distinguishing between the two major sub-periods. In order to do this, the same equation was used over the 1981-2003 period. The overall result is very clear cut: over this shorter period, the equations weaken considerably: the link with productivity disappears or becomes weaker, and this is also the case for the unemployment rate.

In conclusion, the rise in the unemployment rate was the main factor leading to the "desindexing" of wages in relation to productivity. However, rather than being a case of conjectural regulation, it constitutes a transition between two wage regimes:

- Pre-1980: wages progressed in parallel to productivity.

- Post-1980: real wages progressed slowly and steadily in the medium term, relatively independently of the standard determining factors.

Productivity as a basis for growth

Productivity plays a central role in the general growth and employment dynamic. The productivity gains redistribution mode helps to develop the social models, according to which these gains are kept by the companies or redistributed to employees in the form of purchasing power or free time. The comparison between the countries studied for hourly productivity progression must be further developed.

Firstly, we can see that the progression of productivity gains has slowed down (see Table 11). Until the end of the 1970s, Germany and France benefited from much more sustained progression than the two other countries. The 1980s were marked by a clear slowdown in productivity: this was a generalised and well documented phenomenon. From 1990 onwards, the situation reversed: productivity continued to slow down in Germany and France, while it grew again in the United Kingdom and even more so in Sweden. Over the past fifteen years, Sweden and the United Kingdom have regained the productivity progression rate that they had enjoyed before the slowdown, while France and Germany saw productivity gains increase at a slower rate.

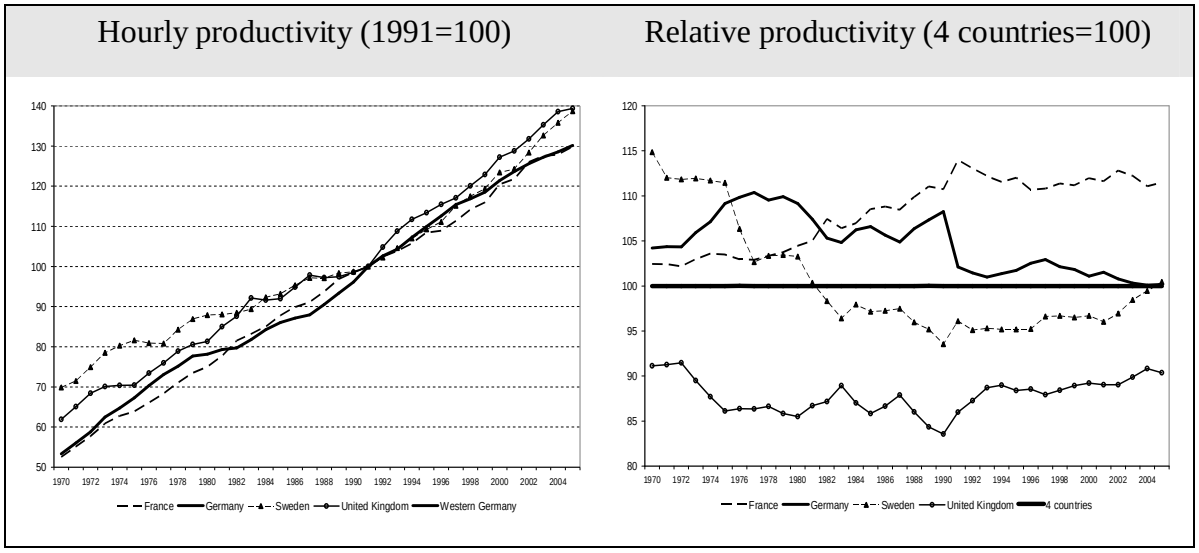
Table 11. Hourly productivity

	1970-1980	1980-1991	1991-2005
France	3.6	2.7	1.9
Germany	3.9	2.3	1.9
Sweden	2.3	1.2	2.4
United Kingdom	2.8	1.9	2.4

Source: OECD

The hierarchy of hourly productivity levels shows that the United Kingdom and Sweden have caught up and Germany has dropped back, while France is ahead by around 12% in relation to the average for the four countries (see Figure 13).

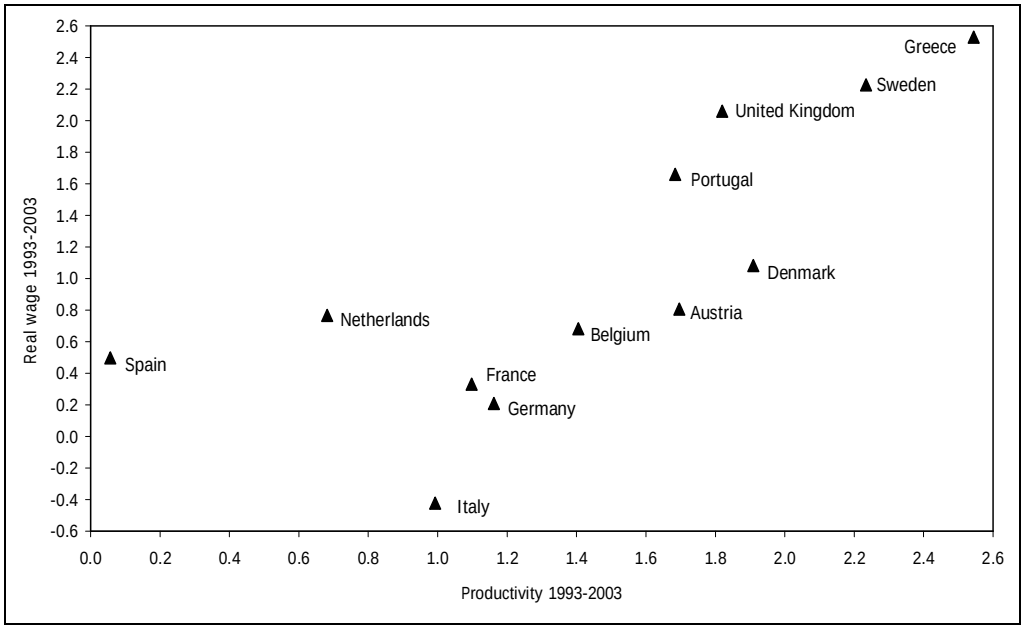
Figure 13. Hourly productivity



Dynamics compared

The fact that wage progression is partially disconnected from productivity progression over time does not imply that there is a complete breakdown. The international comparison shows that the countries where productivity progresses the most quickly are those where wage progression is the most dynamic (see Figure 14). The advantage in terms of productivity seems vital, and causes a virtuous circle in which growth feeds on productivity gains and, conversely, enables them to progress (see Figure 15). This growth is favourable to employment, and enables wage share to be maintained or even to be increased. These complex determinations show that in any case there is no direct link between wage moderation and employment. On the contrary, the countries with the most dynamic wage share create the most jobs (see Figure 16).

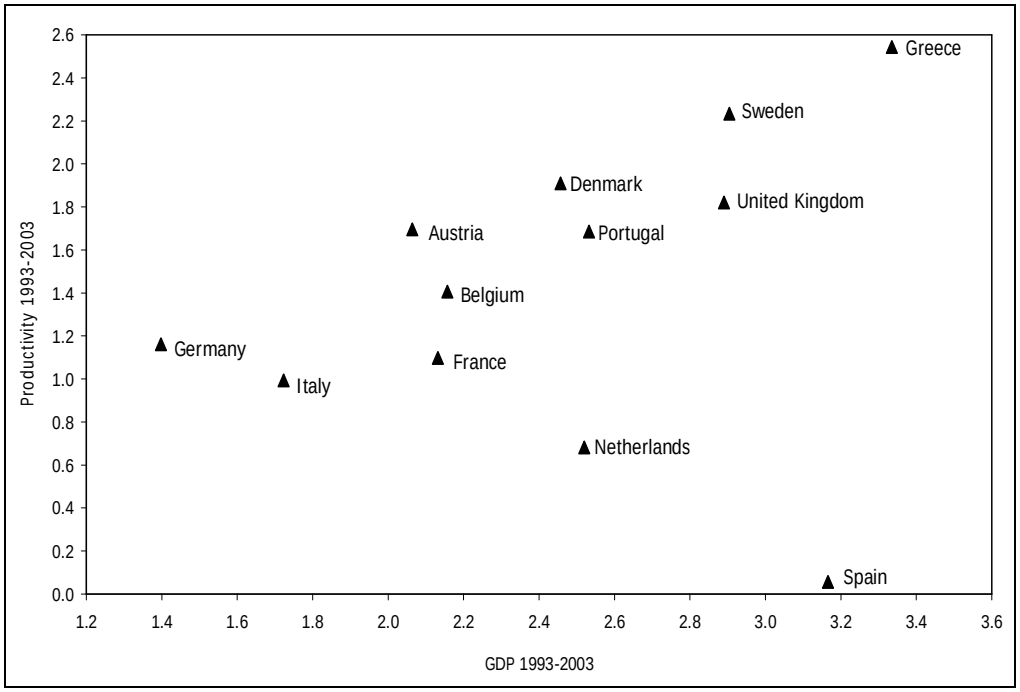
Figure 14. Wage and productivity



Average annual growth rate 1993-2003.

Source: OECD

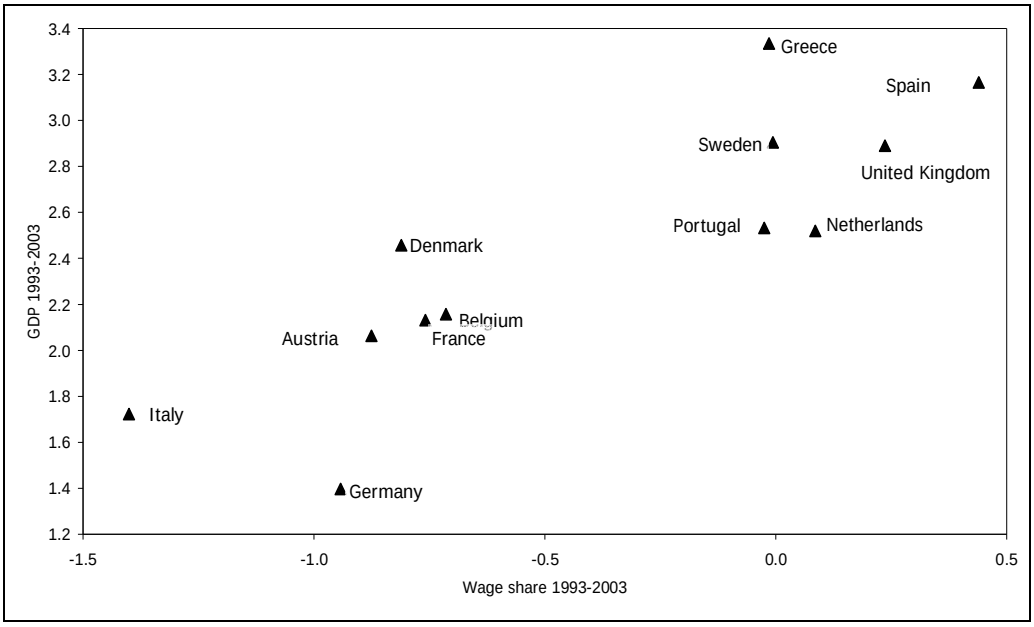
Figure 15. Productivity and growth



Average annual growth rate 1993-2003.

Source: OECD

Figure 16. Employment and wage share



Average annual growth rate 1993-2003.

Source: OECD

These various criteria establish a clear link between Germany and France on the one hand, and Sweden and the United Kingdom on the other, as summarised in the box 3 below.

Box 3 **Wages and growth**	
	United Kingdom, Sweden
	Real wage +
	Productivity +
	GDP growth +
	Wage share = +
France, Germany	
Real wage -	
Productivity -	
GDP growth -	
Wage share -	

3 National Configurations

The different sectors of the economy are not exposed to competition on the global market in the same way. As regards competitiveness, it is mainly the progression of productivity in the exposed sectors that matters. An approach enabling the different national configurations to be distinguished from this angle must be adopted. To move forward in this analysis, economies were divided into three major sectors:

- Manufacturing
- Business services
- Community, social and personal services: civil services, education, healthcare, and social work.

This classification only partially covers the exposed / sheltered dichotomy: some industrial sectors may be relatively sheltered, and a growing segment of business services are exposed to competition via international trade. In addition, the division can differ from one country to the next. Finally, statistical measurements of the added value and the productivity are all the more conventional as one passes from industry to the services.

However, from a practical point of view, this division has two main advantages: it is easier to use than a very detailed classification and it enables international comparisons to be made on a relatively homogeneous basis. It is therefore possible to examine national employment configurations using such a division, which enables a certain number of stylised facts to be defined.

Sectoral development of employment

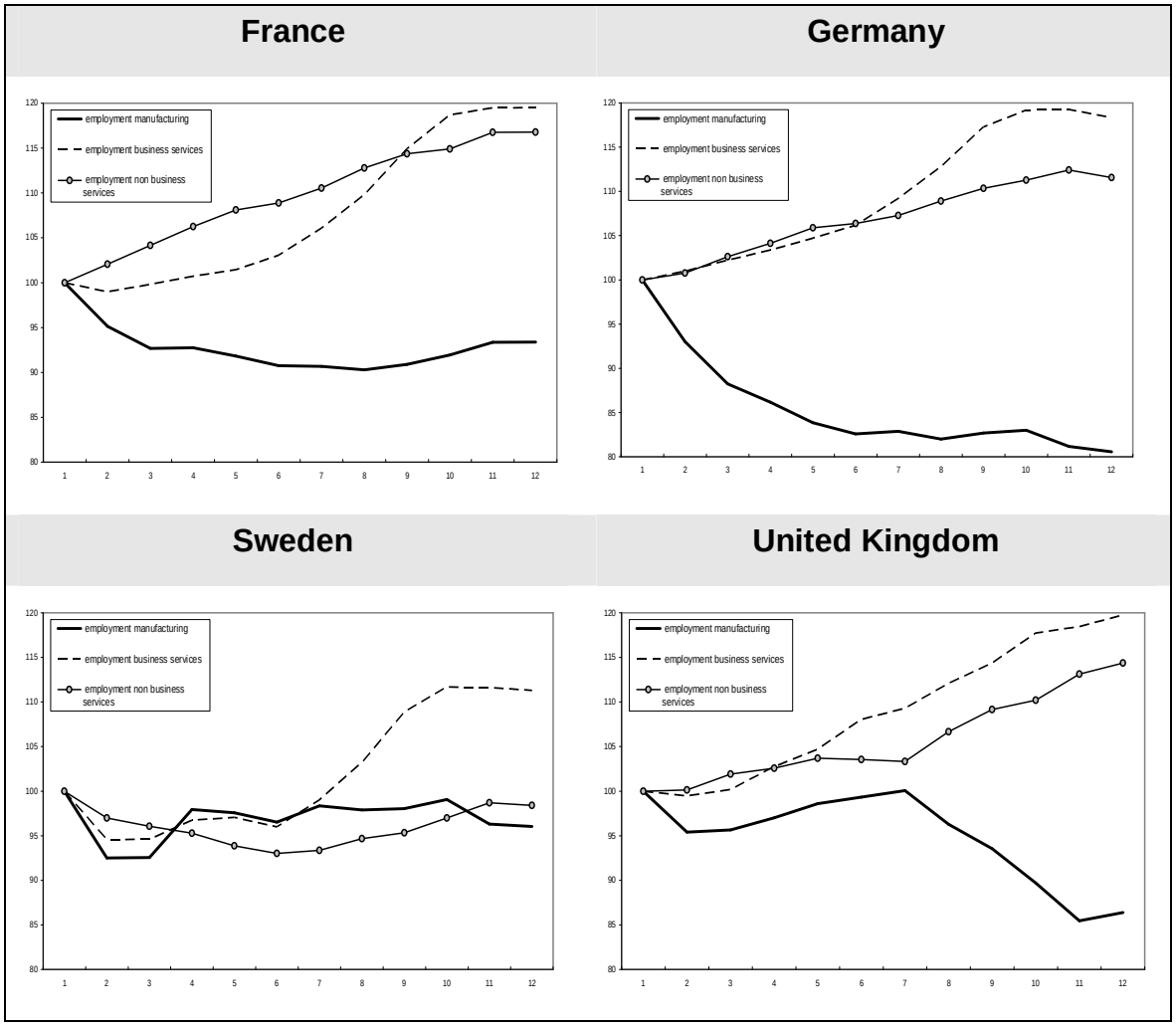
The specialisation of each country can be seen when we divide employment into major sectors. In 2003, manufacturing made up, at the lowest end of the scale, 14.2% of the UK economy and 22.8% of the German economy, at the highest end of the scale. As regards services, the United Kingdom is characterised by a high percentage of business services in its economy (53.2%) whereas Sweden is the country with the highest levels of employment in non-business services (42.1%). The drop in industrial employment is particularly marked in Germany and the United Kingdom, while the increase in business services is relatively homogenous from one country to the next. Taking into account the structure of employment, this change will have an impact to a greater or lesser extent on the overall employment situation (see Table 12).

Table 12. Evolution of employment 1992-2003

		Total	Manufacturing	Business services	Non business services
France	structure 2003	100.0	17.5	44.8	37.7
	evolution 1992-2003	9.6	- 9.4	17.8	11.6
	contribution	9.6	-1.4	8.3	6.1
Germany	structure 2003	100.0	22.8	45.3	31.9
	evolution 1992-2003	1.3	- 19.0	17.8	11.6
	contribution	1.3	- 5.8	7.4	3.5
Sweden	structure 2003	100.0	18.5	39.5	42.1
	evolution 1992-2003	1.1	- 4.3	11.6	- 1.1
	contribution	1.1	- 0.8	4.1	- 0.7
United Kingdom	structure 2003	100.0	14.2	53.2	32.6
	evolution 1992-2003	9.4	- 13.4	20.4	14.0
	contribution	9.4	- 2.5	9.8	4.6

Employment in the manufacturing sector is decreasing at the expense of employment in the service sectors, apart from in Sweden where it remains at the same level. However, the extent of this development varies from one country to the next and its impact depends upon the basic structure of employment in a given country. The contribution of each sector to overall employment (excluding agriculture and energy) is quite different from one country to the next. The impact of the destruction of manufacturing jobs in Germany and of the creation of jobs in the service sector in the United Kingdom can be seen here (see Figure 17).

Figure 17. Employment by sectors



Source: OECD, Stan database

This approach highlights the specific role of productive structures in employment dynamics. However, this role becomes even clearer cut if we examine the determining employment factors in each major sector – namely added value and productivity. All things being equal, the higher the rate of net growth – in other words the difference between added value and productivity – the higher the increase in employment. The four countries under analysis have very different configurations as regards this aspect.

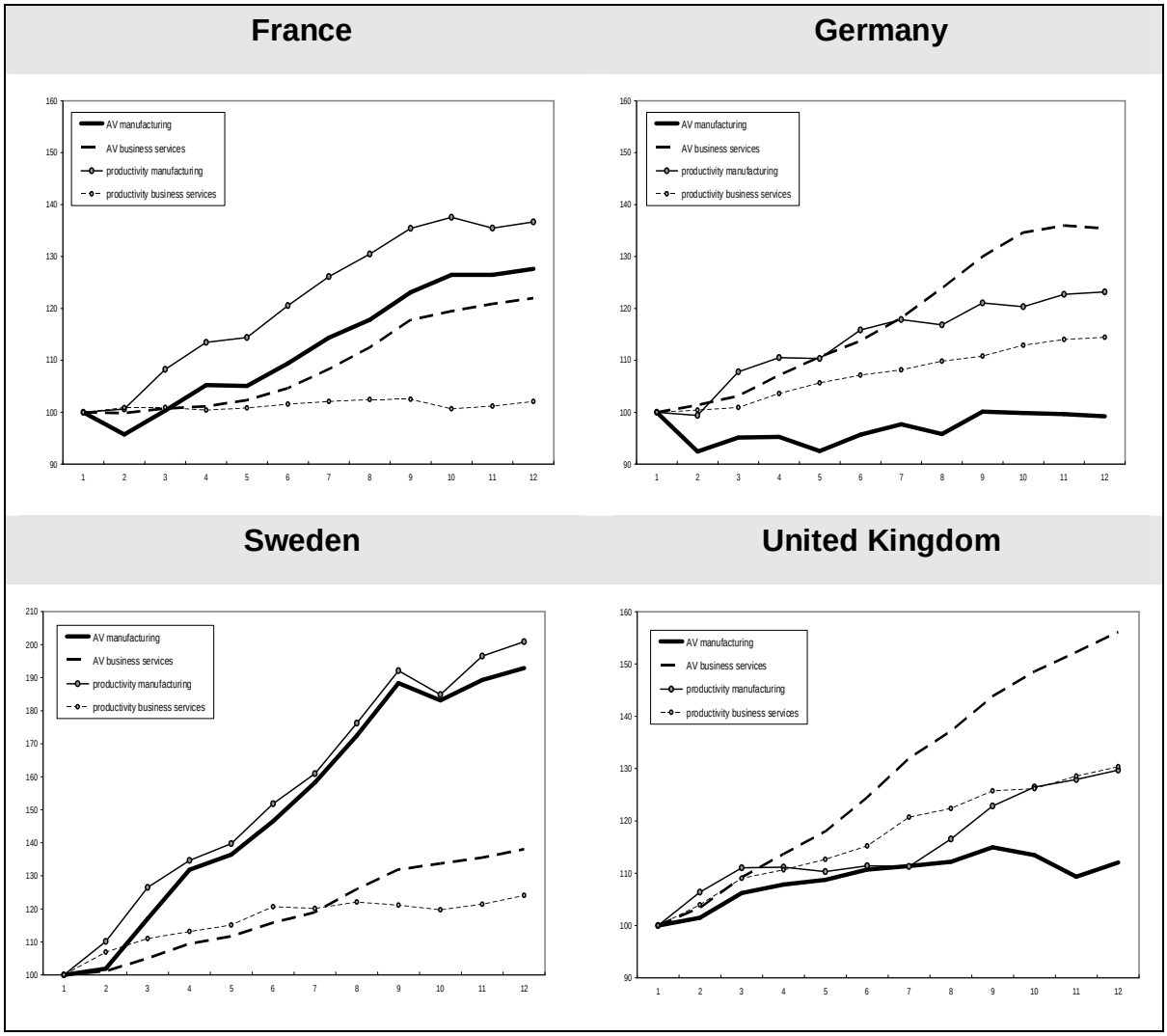
Sweden is marked by very quick growth of added value in manufacturing. However, productivity is developing at a comparable rate in this sector, meaning that practically no new jobs are created. This is also the case in the service sector where added value and productivity progress at roughly the same rates.

France has an extreme productivity configuration, which remains at virtually the same level in the services sector and is increasing in manufacturing. However, the increase

in added value differs little from one sector to another and is in an intermediate position as regards the productivity range. These results in the systematic destruction of manufacturing jobs, and the creation of jobs in the service industry, are based on virtually zero-level productivity.

Germany and the United Kingdom present a third configuration with the increase in productivity being relatively similar in the two major sectors, while added value is increasing much more quickly in the services sector than in manufacturing (see Figure 18).

Figure 18. Growth and productivity by sectors



Source: OECD, Stan database

Employment performance is largely explained by the productive specificities of the various countries, which are strongly marked. The differences in evolution of the productivity compared to that of the value added between great sectors strongly modulate

the general link between the growth of GDP and employment. They should therefore be analysed at the level of the two major sectors.

Sectoral development of productivity

The progression of productivity in manufacturing shows a wide range of situations (see Table 13). Over the 1991-2003 period, France and the United Kingdom progressed at roughly the same speed (respectively 3% and 2.6%). Germany was a long way behind (1.2%) while Sweden achieved a much higher percentage (6.4%). These relative performances are part of differing scenarios in the long-term: an upturn in Sweden, the same level being maintained in France, decline in Germany, and even more so in the United Kingdom. The weight of national history and particularly the effects of productive system restructuring periods can be seen here. This took place during the 1980s in the United Kingdom and during the 1990s in Sweden, and does not seem to have occurred with the same impact in the other two countries. Everything seems to indicate that the effects of restructuring periods boosted the progression of industrial productivity, yet these gains did not necessarily go beyond the end of an industrial cycle, as suggested by the British example. If productivity in manufacturing is a key competitiveness parameter, we can see that it is less contingent upon labour market reforms than industrial restructuring, which is based on a different rationale.

Table 13. Growth rate of productivity by sector

		France	Germany	Sweden	United Kingdom
manufacturing	1980-1992	2.7	1.7	2.7	4.6
	1992-2003	3.0	1.2	6.4	2.6
business services	1980-1992	1.9	1.9	0.9	1.8
	1992-2003	0.3	-1.0	2.0	2.2
difference	1980-1992	0.8	-0.2	2.2	2.8
	1992-2003	2.7	2.2	4.4	0.4

Source: OECD, STAN database

It is striking to note that changes observed in manufacturing productivity in Sweden and the United Kingdom are in fact going in the opposite direction: manufacturing productivity increased considerably in Sweden (up from 2.7% to 6.9%) in the two decades

in question, while it slightly dropped in the United Kingdom (from 4.6% to 2.9%). Everything seems to indicate that the effects of restructuring periods (at the start of the 1980s in the United Kingdom and at the beginning of the 1990s in Sweden) boosted the progression of industrial productivity, yet these gains did not necessarily go beyond the end of an industrial cycle, as suggested by the British example. While these two countries stand out due to a rate of progression, which is amongst the best in Europe, the performances of Germany and France appear mediocre in terms of manufacturing productivity.

However, it is the difference between manufacturing and services, which enables us to separate more clearly the countries under review. This productivity differential enables two polar opposite cases to be distinguished, which go back to what we could call the "productivity paradox". Indeed, there are two main methods of creating jobs. The first method is based on competitiveness using major gains in productivity. The second method is based on "enriching the employment content" of growth which, on the contrary, amounts to low productivity gains. The productivity differential is an indicator, which enables the mix between these two methods to be measured.

From this standpoint, the dominant movement is the growing weight of the competitive rationale, which is demonstrated by an increase in the productivity differential. Over the 1980-1992 and 1992-2003 periods, it increased by 1.9 points in France, 2.4 points in Germany and 2.2 points in Sweden. The United Kingdom was the exception, with a productivity differential drop of 2.4 points.

We can therefore distinguish two main configurations, depending on whether the progression of productivity is quicker in manufacturing than in the overall economy, or whether it is comparable. Sweden can be classified amongst the "dualistic" countries where this differential is considerable. France joined this group during the second decade and the structure of its productivity performances has undergone a major change. Germany also joined this group but against a backdrop of a major decline in productivity performances. The United Kingdom joined the group of "homogeneous" countries during the second decade, when its manufacturing productivity began to grow at a rhythm similar to that of the rest of the economy.

Wages and productivity

As productivity is progressing very differently in the various countries, the issue is to find out just how independently labour markets work in relation to productive structures. In other words, do the productivity differences observed have an impact on real wages? A link could be made if it was possible to demonstrate that the progression of labour costs at least partially explained the changes observed in productive structures. In the sector exposed to global competition, labour costs are a key element in competitiveness. In the sheltered sector, wage moderation could facilitate an increase in the number of jobs created. Employment performance would therefore depend upon the capacity to disassociate wage progression in each of the major sectors, so as it increases as little as possible in the service sector. At sectoral level, this hypothesis adds to the general idea, discussed above, of the positive effect of wage moderation on employment. In order to test the hypothesis, the relative development of productivity and real wages in each of the major sectors should be compared (see Table 14 and Figure 19).

Table 14. Productivity and wages by sector

	Productivity			Real wage			Unit wage cost		
	Manuf. (1)	Services (2)	difference (1) – (2)	Manuf. (1)	Services (2)	difference (1) – (2)	Manuf. (1)	Services (2)	difference (1) – (2)
France	3.0	0.3	2.7	1.0	0.5	0.5	-2.0	0.2	-2.2
Germany	1.2	-1.0	2.2	0.3	-0.8	1.1	-0.9	0.2	-1.1
Sweden	2.6	2.0	0.6	3.0	2.5	0.5	0.4	0.5	-0.1
United Kingdom	6.4	2.2	4.2	2.2	1.9	0.3	-4.2	-0.3	-3.9

Productivity per head. Wage deflated by consumer price.
Average annual growth rate 1992-2003

Sources: OECD, STAN database

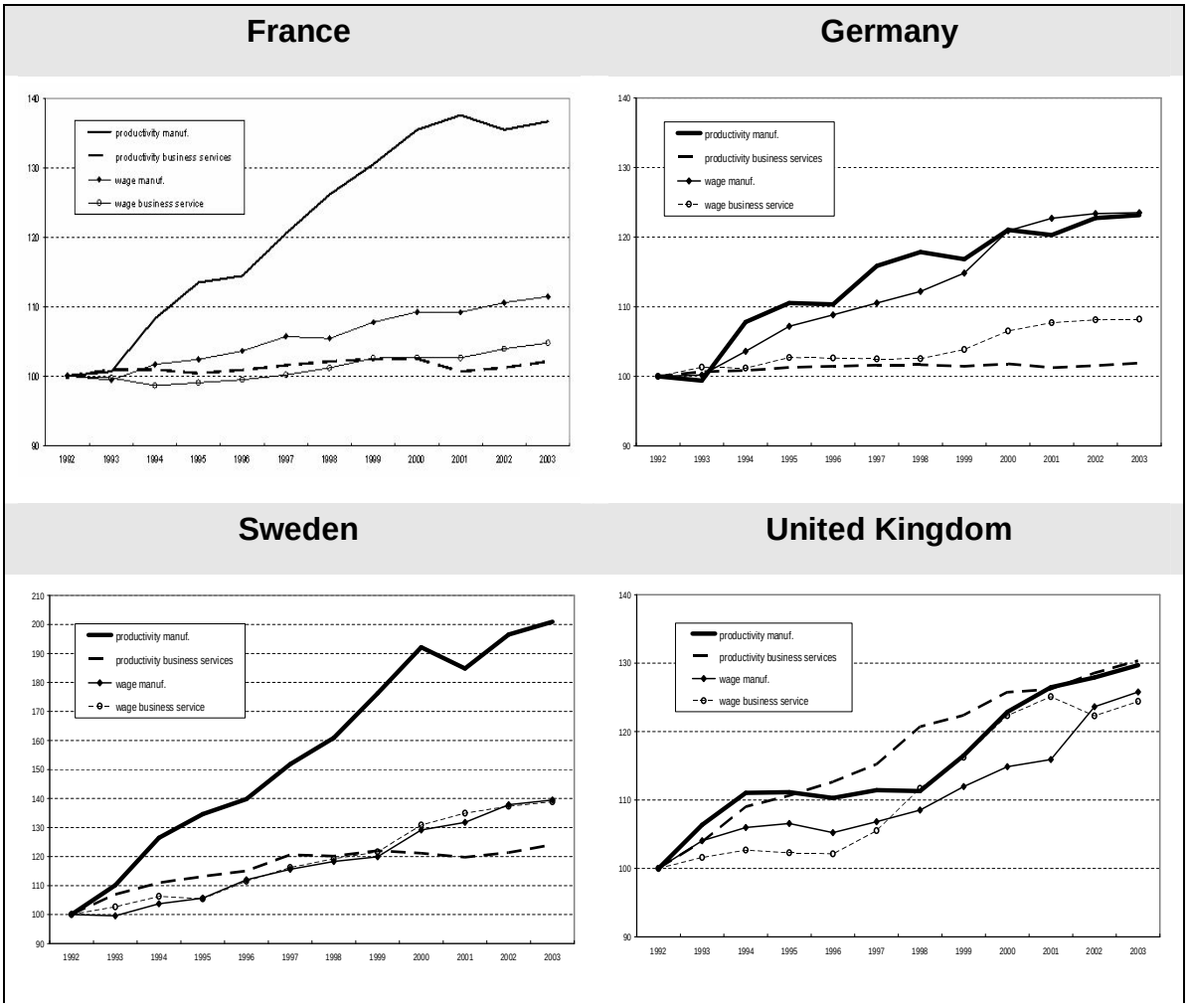
There is little difference between wages in the different sectors in Sweden and the United Kingdom. In both these countries, whose labour markets nevertheless work very differently, wages in the manufacturing and service sectors are very similar.

Germany has a relatively straightforward configuration, with wages in each of the major sectors tending to closely follow changes in productivity. The United Kingdom is the complete opposite with the progression of real wages hardly differing from sector to sector, with this also being the case for productivity. The other two countries occupy the middle ground between these two extreme cases. France is the country, which gets closest to this

form of disconnection, but the phenomenon has a limited scope: real wages are increasing more quickly in manufacturing, but at a much lower rate than productivity. In Sweden, the progression of real wages is very similar in various sectors, but is dragged down by the slower progression of productivity in the service sector.

However, the real wages examined here are obtained by deflating the nominal salary, using the price of added value in each major sector. This goes back to adopting a notion of real costs. This must be supplemented by examining employees' purchasing power, by deflating nominal wages using the index of retail prices. The results do not differ greatly, apart from in the case of Germany, where the relative price movements (between the price of GDP and retail prices) play an important role, which will be discussed in the chapter devoted to Germany.

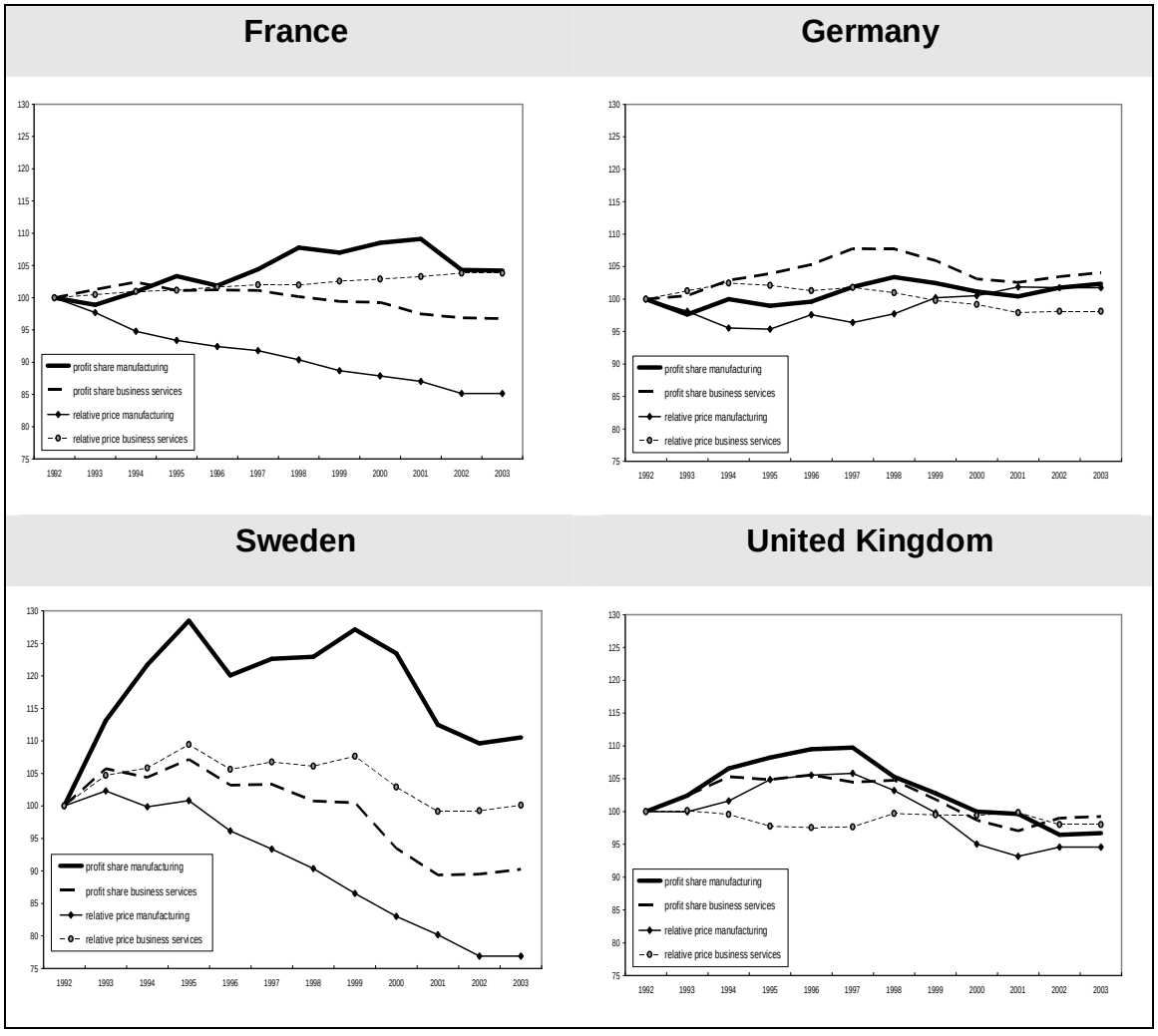
Figure 19. Productivity and wage by sectors



The inter-sectoral dynamic of relative prices and unit labour costs does however lead to a differing progression of margins in the various countries (see Figure 20). In

Germany and the United Kingdom, margins more or less follow the same progression in manufacturing and services. This is not the case in France, however, where a drift has been observed since the mid 1990s in favour of margins in the manufacturing industry. In Sweden, the situation is different once again: margins in manufacturing increased significantly during the first half of the 1990s, since then they have progressed in line with margins in the services.

Figure 20. Profit share and relative prices by sectors



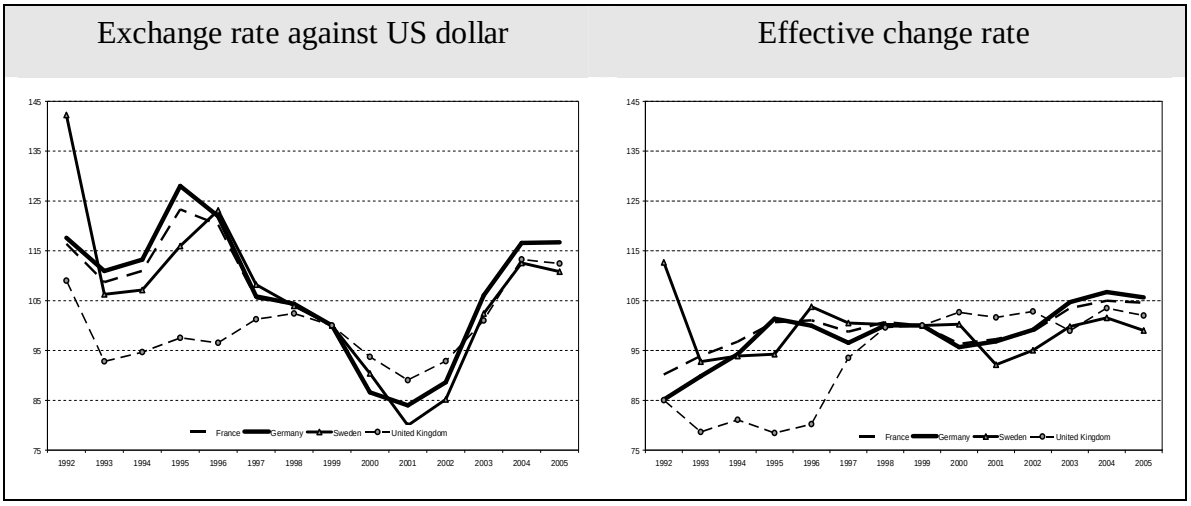
The exchange rate

Two of the countries under review are members of the Eurozone (Germany and France) while the two others (Sweden and the United Kingdom) remained outside the zone. The issue here is to find out whether the decision to stay out of the Eurozone enabled them

to implement more independent exchange policies. The response is not clear cut (see Figure 21). The exchange rate against dollar does not show significant differences, apart from for the pound sterling before the creation of the Euro. Progression of the effective exchange rate, which takes into account the export structure of each country, has experienced fewer fluctuations due to intra-European trade. Sweden and the United Kingdom's effective exchange rates differ from the two countries in the Eurozone, but this is down to other reasons than the actual exchange policy.

It is therefore difficult to highlight a differentiated effect of competitive pressure on the different economies, which would be caused by the exchange rate and would lead to more stringent workforce management.

Figure 21. Exchange rates



Public sector job and the self-employed sector

Public sector jobs and the self-employed sector make a significant contribution to employment performance, while being exempt from macroeconomic or institutional assessments. They occupy a different place depending on the country under review (see Figure 22 and Table 15). In 2005, the percentage of public sector employment in total employment ranged from 31.2% in Sweden to 10.8% in Germany. However, both these countries have experienced a major reduction in the workforce between 1992 and 2005: down 18% in Germany and 8% in Sweden. In both these countries, public sector employment makes a negative contribution to the growth of total employment. In France, public sector employment makes a positive contribution, and this is also the case in the

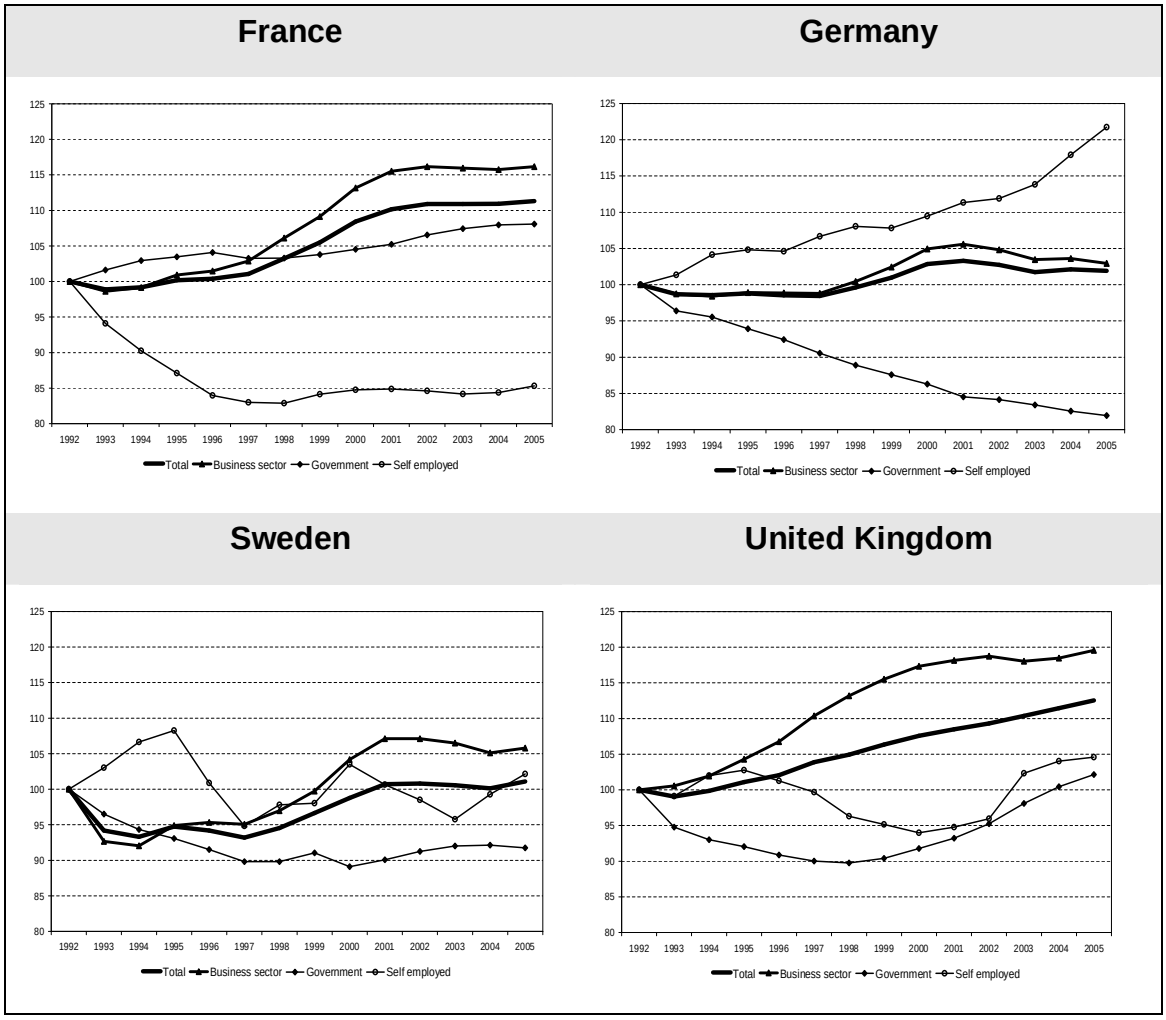
United Kingdom, where public sector employment started to increase once again as of 2000.

Self-employed workers represent between 7-13% of total employment. This sector makes little contribution to total employment, and even makes a negative contribution in France. On the other hand, this sector makes a major contribution in Germany, where the progression of casual work is tending to replace the drop in public sector employment.

Table 15. Evolution of employment 1992-2005

		Total	Dependent business sector	Government	Self-employed
France	structure 2005	100.0	70.0	22.7	7.3
	evolution 1992-2005	11.3	16.2	8.1	- 14.7
	contribution	11.3	10.8	1.9	- 1.4
Germany	structure 2005	100.0	78.0	10.8	11.2
	evolution 1992-2005	1.9	3.0	- 18.1	21.8
	contribution	1.9	2.3	- 2.4	2.0
Sweden	structure 2005	100.0	62.4	31.2	8.1
	evolution 1992-2005	1.1	5.8	- 8.3	2.2
	contribution	1.1	3.4	-2.8	0.2
United Kingdom	structure 2005	100.0	67.5	19.1	13.0
	evolution 1992-2005	12.6	19.6	2.2	4.6
	contribution	12.6	12.4	0.5	0.6

Figure 22. Public employment



4 The role of the institutions

Can a link be pinpointed at macroeconomic level between structural reforms of the labour markets and employment performance? This question has given rise to numerous studies, which are far from being conclusive. Rather than go over all the results, comparing these four countries constitutes an opportunity to focus on specific national situations by using previous results and in particular the decomposition equation. This equation uses economic data (GDP, productivity, working hours) and socio-demographic data (working age population, labour force participation rate).

Each of these variables is a "way in" for the variables describing the workings of the labour market: wage dynamic on the one hand, and institutional variables on the other. Wage moderation can, for example, affect the growth of GDP by boosting competitiveness,

or can alter the productive capital-labour combination and therefore influence the progression of productivity. Greater labour market flexibility can modify the balance between working hours and productivity, can change the progression of the labour force participation rate and can even help to better match production to demand. It can also lead to increased wage moderation.

This rational approach is not used in the majority of cases and it makes two methodological errors. The first error is to not distinguish the direct effect of labour market reforms and their indirect effect by wage dynamic. In reality, two types of model are available, which have followed one another over time. The first model seeks to establish a tidy relation between wage moderation and employment. However, the model has largely failed to establish this direct link. Research, notably by the OECD, has moved towards another form of modelling directly linking employment performance and institutional variables, describing the degree of labour market rigidity. Apart from the fact that the results of this approach are hardly convincing, it represents a “black box” which does not question which paths have been taken.

However, the second error is more serious: namely seeking to establish a direct link between an employment performance variable (generally the unemployment rate) and a range of institutional variables. This approach can be criticised on several fronts. The first criticism is that the unemployment rate is not the only possible indicator and it can differ appreciably in relation to other indicators. We saw earlier that the unemployment rate can drop steeply in countries where levels of job creation are nevertheless lower than those observed in other countries. The second weak point relates to the absence of any macroeconomic variables, particularly the growth of GDP. It is however obvious that a country which benefits from stronger growth will, as a rule, create more jobs. The absence of macroeconomic variables sidelines this relative advantage and consequently gives institutional variables a disproportionately important role. These two criticisms combine: it is all the more inappropriate to sideline GDP growth, with which job progression closely correlates, as the selected indicator (unemployment rate), can progress very differently.

These methodological remarks lead to a two-phase comparison of the countries under review, with wage moderation and then the impact of institutional variables being successively examined.

Can employment performance be related to labour market reforms? In order to shed light on this issue, we began by creating an overall employment performance indicator.

This overall indicator is based on the average performance achieved by each of the countries, which is measured using four indicators: employment growth, variation of unemployment rate, variation of employment rate, and the progression of the number of hours worked. All the variables are standardised to make them comparable (see Table 16).

Table 16. Indicators of employment performance

1991 - 2005	France	Germany	Sweden	United Kingdom
Change in employment	109.6	100.3	96.1	109.9
Change in unemployment rate	0.4	4.2	2.9	- 4.0
Change in employment rate	1.8	- 1.3	- 8.1	2.3
Change in total working hours	0.0	- 7.1	- 1.4	4.2
Employment Global performance	100.3	99.4	99.2	101.1

A certain number of institutional indicators were gathered together which can be seen in the following table.

Table 17. Institutional indicators

	France	Germany	Sweden	United Kingdom
Average EPL	2.9	2.5	2.4	0.8
Global Competitiveness Index (2006)	5.31	5.58	3.00	5.54
Workplace relations (1999)	3.3	5.3	5.9	5.1
Unemployment Insurance Generosity (2002)	6.9	7.5	10.6	6.6
Wage unequality (1995)	1.59	1.59	1.39	1.84
Job insecurity 1994-2005	101.9	116.8	99.1	99.4

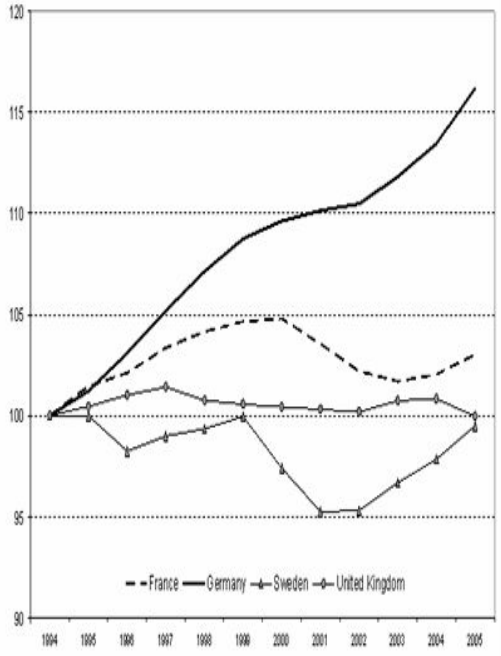
Sources: OECD, Global Competitiveness Report, World Value Survey, Scruggs (2006), Philippon (2007), Comparative Welfare States Data Set.

We added an aggregated job insecurity indicator based on three series describing the percentage of total employment made up by self-employed workers, fixed term contracts and part-time working. This indicator is relatively stable in the medium term in Sweden and

the United Kingdom, is increasing in France and is rising significantly in Germany (see Table 18) where the three components of job insecurity are increasing significantly.

Table 18. Job insecurity indicators

		1994	2005	change	Global indicator of precariousness
France	fixed term contracts	11.5	13.3	1.8	
	self employed	11.2	8.9	-2.3	
	part time	14.7	17.1	2.4	
	precariousness	31.8	34.8	3.0	
Germany	fixed term contracts	10.4	14.2	3.8	
	self employed	9.9	11.2	1.3	
	part time	17.2	28.9	11.7	
	precariousness	32.6	48.7	16.2	
Sweden	fixed term contracts	14.1	16.0	1.9	
	self employed	5.6	4.8	-0.8	
	part time	26.0	24.0	-2.0	
	precariousness	42.9	42.4	-0.5	
United Kingdom	fixed term contracts	6.9	5.7	-1.2	
	self employed	13.8	12.7	-1.1	
	part time	23.0	24.8	1.7	
	precariousness	36.8	36.8	0.0	



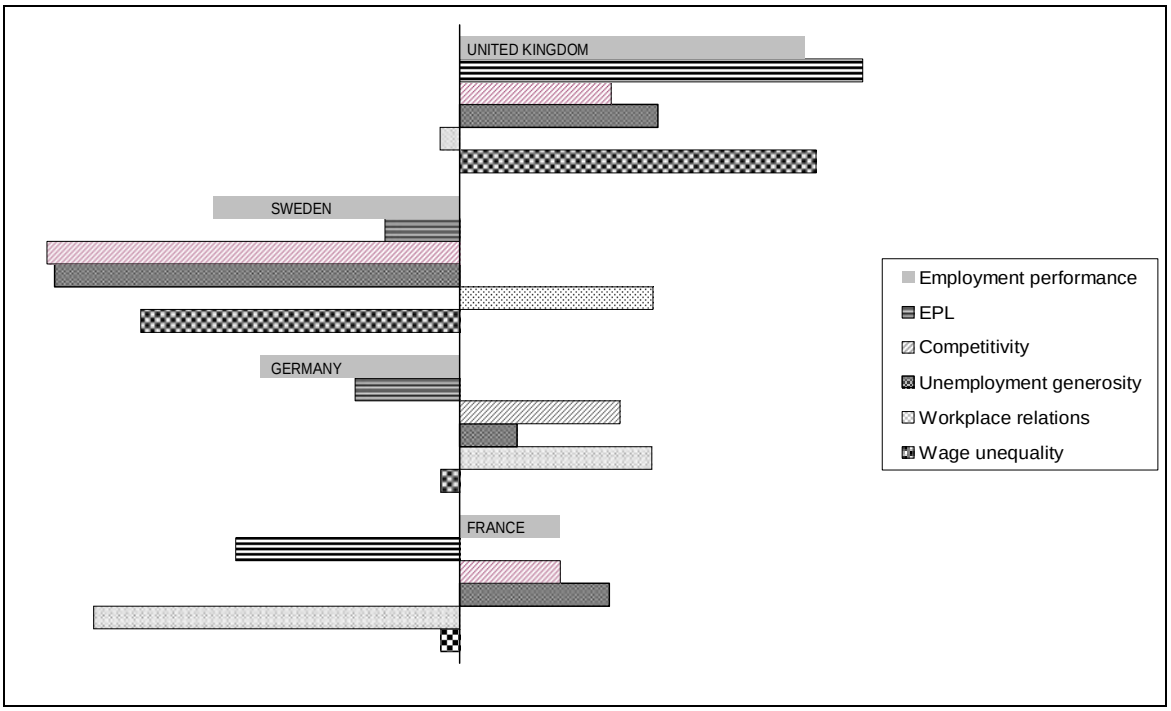
This job insecurity indicator shows a negative link with employment performance. This result goes against the notion that greater labour market flexibility enables more jobs to be created for a given level of growth. Indeed, it shows quite the opposite, namely that an improvement in the labour market situation enables non-standard forms of employment to be reduced or at least to be curbed. On the other hand, non-standard forms of employment increase more quickly when the labour market situation worsens.

Can a link be established between the various institutional indicators and employment performance? Figure 23 below shows that there is no overall coherent connection. The United Kingdom is a textbook case, in the sense that all the institutional variables (standardised over the four countries) go towards explaining its better performance, apart from workplace relations, which are slightly below the average for the countries under review.

None of the other three countries show the same degree of "coherence". For Sweden, lower employment performance tallies with lower indicator scores, apart from the overall competitiveness indicator, giving the country a good ranking. France achieves

relatively good employment performance, despite a poor score for Employment Protection Legislation (EPL) and the quality of workplace relations. Germany does not achieve good employment performance, despite obtaining a good ranking for competitiveness, incentive to work (low unemployment benefit) and the quality of workplace relations.

Figure 23. Employment performance and institutional indicators



The conclusion to be drawn from this analysis is that, apart from the United Kingdom, there is no solid link between employment performance and the variables describing the labour market institutions. Everything seems to show that each country is an individual case, which cannot be analysed using a general rule.

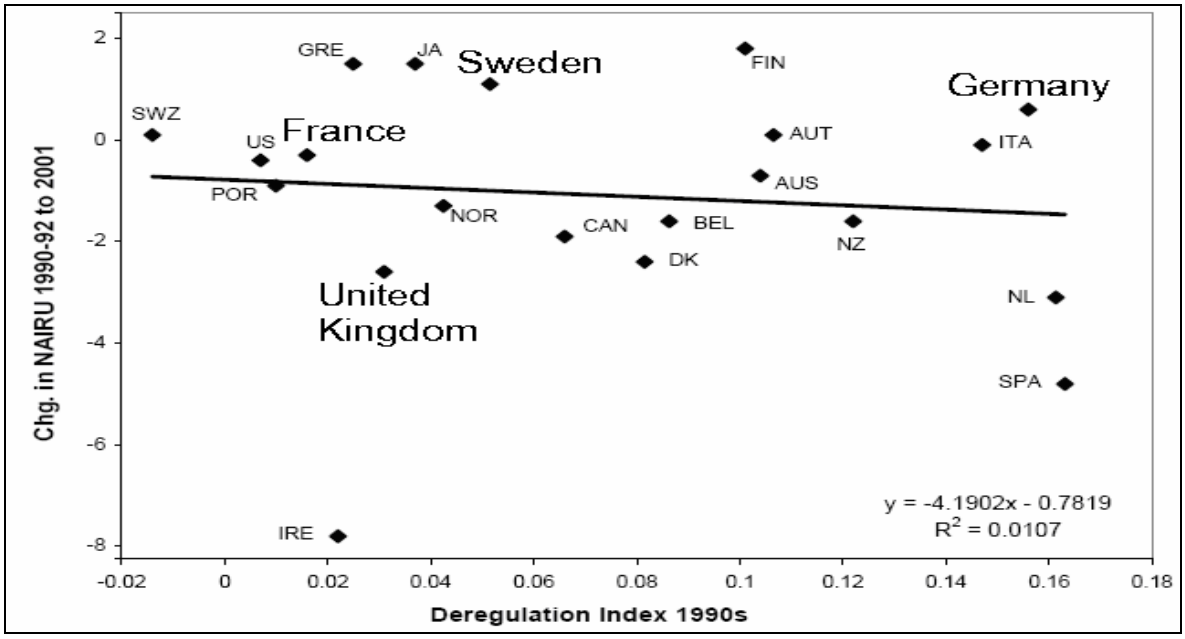
This result differs from the literature published by the international organisations such as the IMF and the OECD, which seeks to establish systematic links between these two groups of variables. As a result of this, there is a now dominant interpretation stating that mass unemployment in Europe is down to labour market sclerosis and rigidity. This concept, called the Labour Market Flexibility Hypothesis, attributes wage rigidity, which prevents changes to the labour market, to institutional factors (union density, centralised wage bargaining, employment protection laws, taxes, unemployment benefit, and benefit duration). Unemployment in Europe is to some extent the flip side of the Welfare State. In order to restore full employment, labour market reforms must be instituted aiming to

reduce trade union influence, relax employment protection legislation and reduce unemployment benefit and the minimum wage.

For the four countries under analysis, we have seen that this interpretation cannot be automatically applied. This observation confirms the results, which could have been achieved using two different methods. The first method is based on reproducing the tests and demonstrating their flimsiness. This is the method followed by David Howell, Dean Baker, Andrew Glyn and John Schmitt (2006). Figure 24 from this study illustrates the absence of a general link between the NAIRU and the deregulation index, with the countries under review not bucking this trend. During the 1990s, Germany, France and Sweden recorded relatively similar NAIRU variations, while having very different deregulation indexes.

Figure 24

Labour Market Deregulation and Changes in the NAIRU for 21 OECD Countries



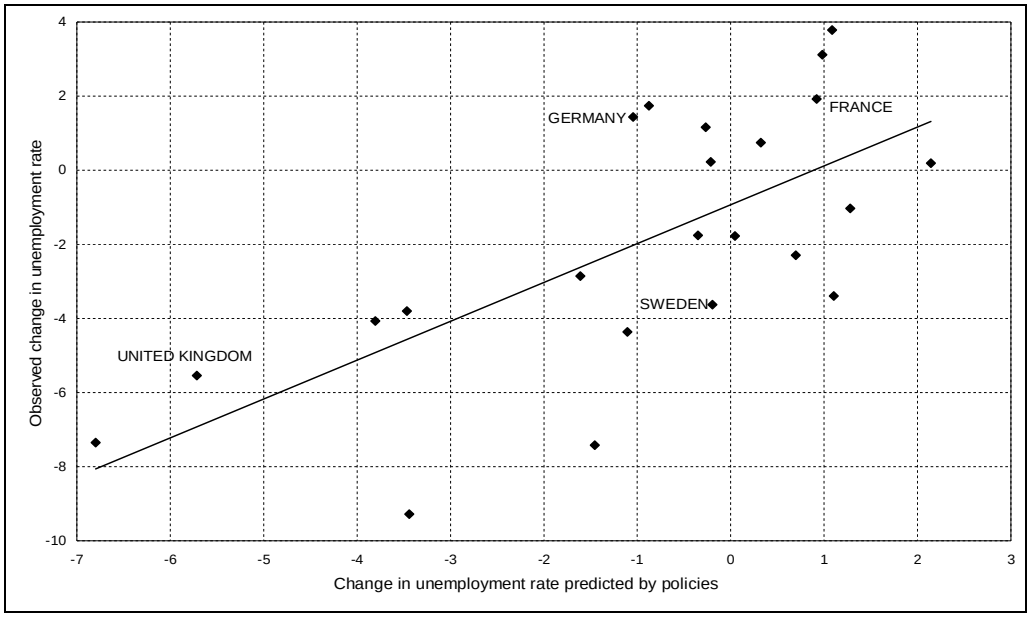
Source: David R. Howell, Dean Baker, Andrew Glyn and John Schmitt (2006)

The only statistically significant link remaining is that between the employment generosity indicator and the unemployment rate. However, the authors discuss the scope of this effect and put forward "a second reason to remain sceptical about the direct applicability of the regression results concerns timing and causality. To the extent that policy makers increase and decrease the generosity of benefits in response to the perceived need for a safety net, the statistical fit should not be interpreted as a measure of the

disincentive effects of the benefits system." They reach the opposite conclusion based on Granger causality tests focusing on the success stories (Denmark, Ireland, Netherlands and United Kingdom), which "indicate that it is the unemployment rate that drives the benefits level in each case – just the reverse of the orthodox prediction."

More recently, the OECD took up this question again in its 2006 Employment Outlook, based on a working paper (Bassanini Duval 2006), which highlights the major effect of reforms on employment performance. However, this has not been exempt from criticism (see Howell 2006). Furthermore, Figure 25 shows that the four countries under review are located relatively faraway from the correlation line. There is a major variation in the unemployment rate not explained by institutional variables in Sweden (3.4 points), Germany (2.4 points) and France (1 point). The introduction of an output gap as an explanatory variable does not improve and even worsens the estimation, apart from the case of Sweden, where it fully explains the variation observed in the unemployment rate (see Table 19).

Figure 25. The evolution of unemployment is well explained by policy reforms



Source: OECD (2006)

Table 19. Explanations of changes in the unemployment rate

	Change in unemployment rate	Change explained by policy reforms only	Change explained by policy reforms and the output gap
France	1.9	0.9	1.1
Germany	1.4	-1.0	-1.0
Sweden	-3.6	-0.2	-3.3
United Kingdom	-5.5	-5.7	-8.7

Source: Bassanini Duval (2006)

The Macroeconomic Policy Hypothesis

These results lead us to go back over the Macroeconomic Policy Hypothesis, an alternative to the Labour Market Flexibility Hypothesis (Galbraith, Roy and Chowdhury 2007). This hypothesis is based on macroeconomic policies being the main determining factors in changes in the unemployment rate. This hypothesis was developed by Thomas Palley (2001 and 2004). This original contribution is significant as it combines macroeconomic variables with institutional variables describing the labour market in order to explain changes in the unemployment rate. Palley (2001) firstly verifies the important and sound role of macroeconomic variables such as the growth of GDP and the real interest rate. Regarding variables describing the labour market, "the evidence is more problematic: unemployment benefit duration and union density are both consistently insignificant. The level of wage bargaining coordination and the extent of union coverage matter consistently, but they need not raise unemployment if they are appropriately paired with other policies. Finally, the significance of other microeconomic variables (employment protection, unemployment insurance wage replacement rate, tax burden) is unstable and not robust to changes in specification". Palley's overall conclusion is that European unemployment is "principally the result of self-inflicted dysfunctional macroeconomic policy. European policy makers adopted a course of disinflation, high real interest rates, and slower growth that raised unemployment. Moreover, they all adopted this course at the same time, thereby generating a wave of trade based cross-country spill-overs that generated a continent wide macroeconomic funk and further raised unemployment".

The study even suggests an institutional variables feedback effect on economic policy. Palley states "real interest rates have tended to be systematically higher in countries

with high union density despite the lack of any evidence that high union density raises inflation. This suggests that central banks have systematically raised interest rates in countries with high union density". If restrictive macroeconomic policies are designed as a way of disciplining the trade unions via rising unemployment, we have an additional example of the mistakes made when establishing a direct link between unemployment and institutional variables, which ends up bypassing macroeconomic policy.

In order to extend Palley's results to the four countries under review and over a more recent period, we will use the following simple model: The unemployment rate U of each country depends on the unemployment rate for the previous period in accordance with a coefficient which itself depends on EPL the Employment Protection Legislation index (EPL):

$$U_{i,t} = (a + b \,.\, EPL_i)\, U_{i,t-1}$$

The model is estimated by bringing together the four countries over the 1982-2005 period (1991-2005 for Germany). The idea here is that labour market rigidity increases the persistence of unemployment. The result obtained seems to confirm the Labour Market Flexibility Hypothesis even if the EPL coefficient is barely significant and very low:

$$U_{i,t} = (0.904 + 0.0186\ EPL_i)\, U_{i,t-1} + 0.497$$
$$(22.1) \quad (1.6) \qquad\qquad (0.1)$$

$$R^2=0.924$$

However, if an element ΔQ reflecting the GDP growth rate is introduced, a relation in which the significance of the EPL variable disappears completely is obtained.

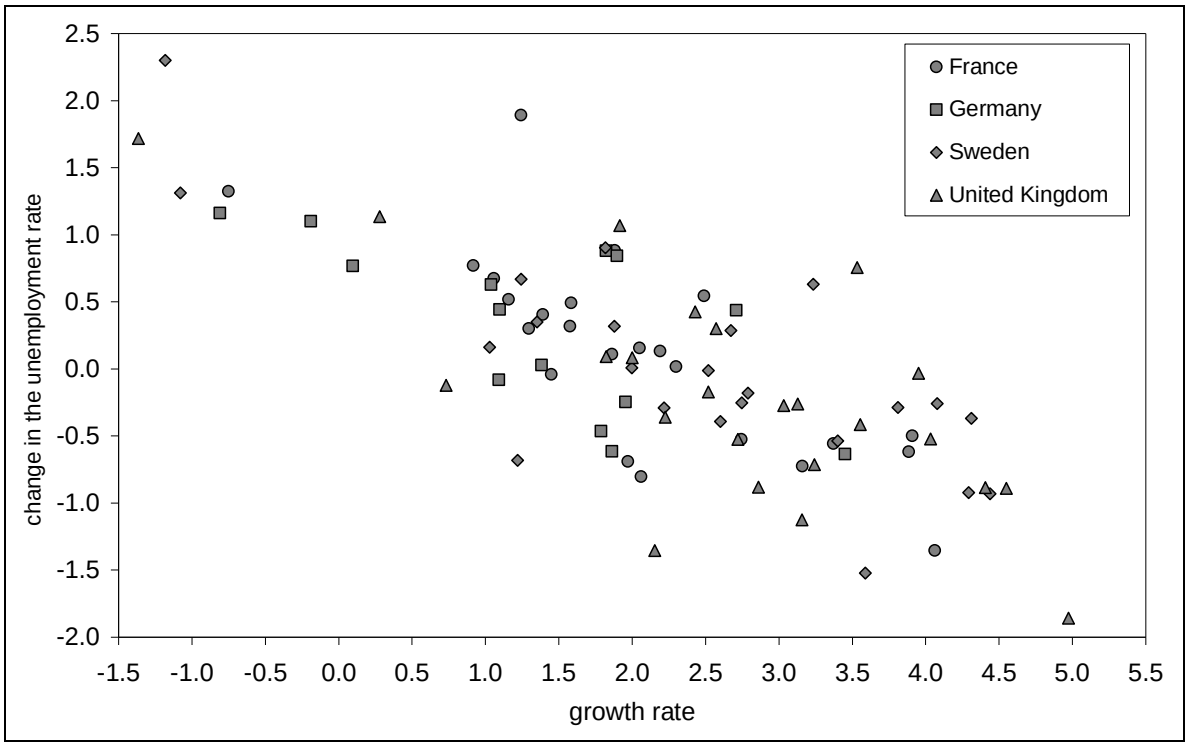
$$U_{i,t} = (0.998 - 0.0026\ EPL_i)\, U_{i,t-1} - 1.058\ \Delta Q_{i,t} + 1.097$$
$$(35.6) \quad (0.3) \qquad\qquad (10.6) \qquad (6.4)$$

$$R^2=0.968$$

In this case, we have a result, which fits with Palley's analysis. The link between employment performance and growth is so strong (Figure 26) that it tends to make the explanatory role of institutional variables disappear. In other words, the importance

attributed to these variables, which are supposed to quantify labour market reforms, stems from the omission of macroeconomic variables.

Figure 26. Unemployment and growth rate



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