

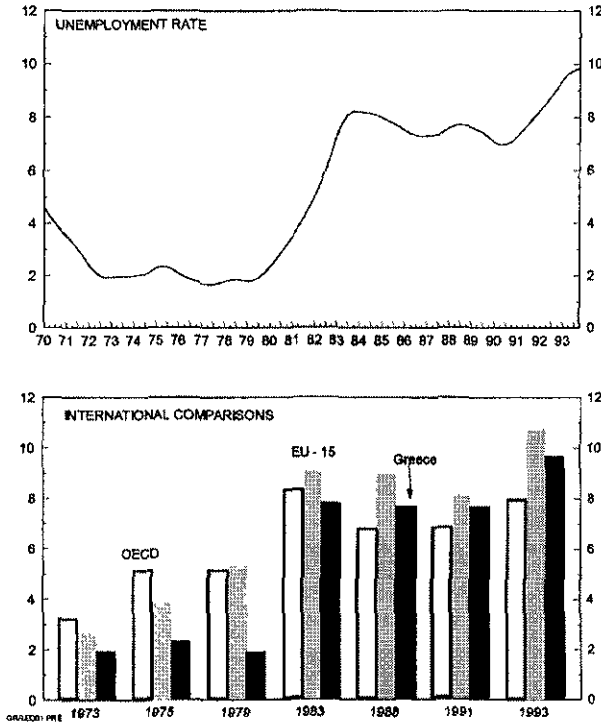
Labour Market Performance and Institutions in Greece

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The Greek unemployment rate rose from 2 per cent in the 1960s to 9–10 per cent in the 1990s. This reflected the increase in female participation rates, the slowdown in growth, the restructuring of production, and the increased mismatch between jobs and job seekers, but the most crucial factor was the persistence of real wage aspirations. In this paper, we examine the characteristics and trends of unemployment in Greece and make comparisons with other countries. In addition to a number of standard explanations we emphasize the role of labour market institutions and public sector hiring policy as two factors contributing to the rise in unemployment in Greece.

Unemployment in Greece rose dramatically in the first half of the 1980s and, after a pause, resumed an upward trend in the 1990s. This pattern was similar to that in the rest of the OECD. There were, however, some differences that set Greece apart. First, the extent of the increase in unemployment was larger: while in the early 1970s unemployment in Greece was about 2 per cent of the labour force, compared with 3.5 per cent in the OECD area, by the early 1990s unemployment in Greece reached almost 10 per cent, compared with an OECD average of 8 per cent. Second, unemployment fluctuations in the 1980s were more subdued in Greece: while average OECD unemployment fell by about 1.5 percentage point in the late 1980s to rise again later, in Greece, the decline during the same period was somewhat smaller. In this, the Greek experience was very similar to that in the other European members of the OECD (Figure 1).

FIGURE 1
UNEMPLOYMENT IN GREECE AS A PERCENTAGE OF THE
LABOUR FORCE



Source: OECD Labour Force Statistics; and European Economy No. 60, 1995

The evolution of unemployment during the last quarter-century was associated with fundamental changes in the Greek economy. First, there were three major shifts in the economic policy regime: in 1974, when the end of the military dictatorship engendered a strong political drive for redistribution and increased the influence of the trade unions; in 1981, when Greece acceded to the EC and – at the same time – left-leaning PASOK came to power, launching a policy of nationalizations and rapid state expansion, briefly interrupted during the 1985-86 stabilization programme; and again in the early 1990s, when Greece turned to a policy of fiscal retrenchment and financial liberalization. Second (and directly related to the first), Greece's overall economic performance deteriorated sharply during this period: the average annual output growth rate fell from 5–6 per cent in the early 1970s to 2 per cent

in the 1980s and 1 per cent in the 1990s; employment growth followed the same pattern; and inflation accelerated from 3–4 per cent annually in the 1960s and early 1970s to 18 per cent in the late 1970s and 1980s. Last but not least, the economy underwent a significant structural transformation. The share of manufacturing in value added fell from 25 per cent in the early 1970s to 17 per cent in the early 1990s (that of agriculture followed a similar but much less pronounced pattern), while the share of services grew from less than 50 per cent to more than 60 per cent during the same period.

What explains the rise of unemployment in Greece during the last 15 years? How is this rise related to the broader economic changes that took place during the same period? Until relatively recently, these questions were not central to the economic policy debate in Greece. This was probably due to the existence of 'shock absorbers', such as the large black economy and the traditionally strong family ties in Greek society, which prevented unemployment from becoming a major social problem. In the last few years, however, policy-makers have become increasingly aware of the fact that unemployment is the only area in which Greece has achieved convergence with the rest of the European Union.

In this paper, and a more technical companion piece (Demekas and Kontolemis 1996), we try first to get the questions right by examining the characteristics and trends of unemployment – an analysis which has thus far been lacking – and comparing the situation in Greece with that in other countries. We then analyze the persistence of unemployment in Greece, and relate it to the aspirations and behaviour of employers, workers, and trade unions. Finally, we trace the effect that Greek labour market institutions have had on these aspirations and behaviours, and we discuss the hypothesis that in addition to other factors, the steep rise and persistence of unemployment during the 1980s was also due to the increase in the share of the public sector in the labour market and the sharp rise in the public/private relative wage. Throughout, the discussion is kept at a non-technical level, with frequent references to the more detailed analysis in this paper's companion piece.

The paper is organized as follows. Section 1 presents the main facts: the size, evolution, and composition of the labour force; employment, and unemployment in Greece; and the degree of unemployment persistence. Section 2 discusses Greek labour market institutions and their effect on the demand and supply side of the labour market. Section 3 discusses the role of the public sector wage and employment policies; and the final section recapitulates the main findings.

LABOUR FORCE, EMPLOYMENT, AND UNEMPLOYMENT IN GREECE

The discussion of the trends and composition of the labour force, employment, and unemployment in Greece is hampered by serious data problems. Although long time series are available for the main aggregates, consistent data on the composition of these aggregates (by age, education, and so on) are harder to come by. We use for this purpose data collected by the National Statistical Service of Greece (NSSG) in its Annual Labour Force Surveys, which the NSSG has kindly made available to us. These questionnaire-based surveys, however, became systematic only in the early 1980s, and their scope has expanded over time (which means that certain data became available only later). They are conducted during the second quarter of each year,¹ and cover a sample of 1.5 per cent of the labour force (currently about 65 thousand individuals). *One-quarter of the sample is renewed every year.*

Participation rates and the composition of the labour force

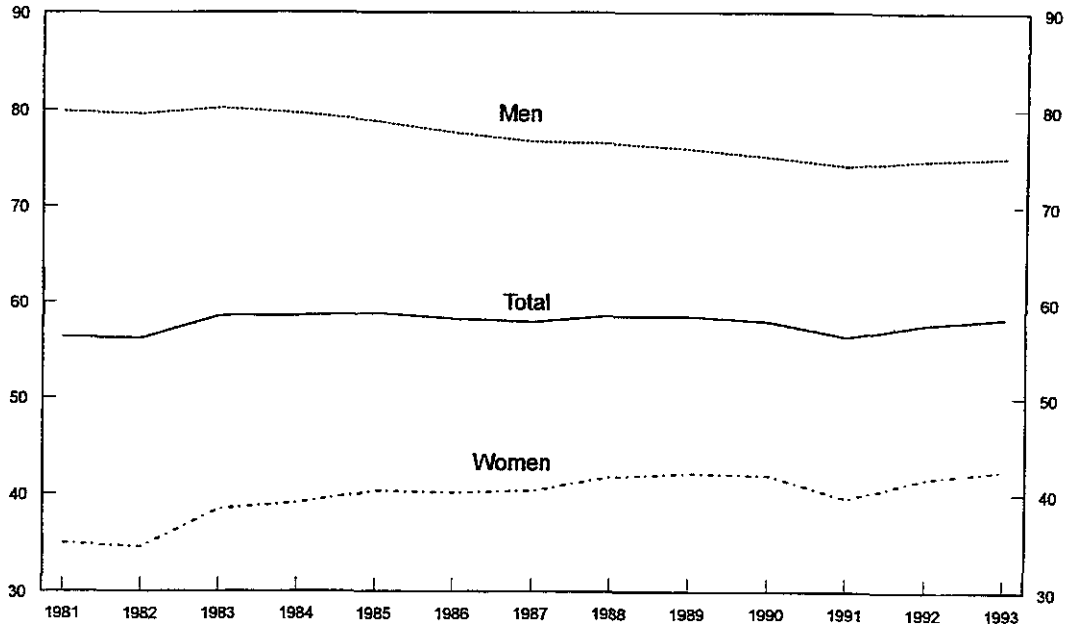
The overall participation rate in Greece remained stable at just less than 50 per cent during 1981–93, comparable to that in other southern European countries but substantially below the OECD average (65–70 per cent).² Nonetheless, there were significant changes in the participation rates for women and men, which offset each other (Figure 2): those for women increased substantially, particularly for women between 20–34 years of age (Table 1), whose participation rates increased from 41 per cent in 1981 to almost 60 per cent by 1993; those for men, on the other hand, fell, especially for those younger than 19 and more than 45 years-old.

TABLE 1
PARTICIPATION RATES BY SEX AND AGE
(PERCENTAGE OF POPULATION OVER 14 YEARS OLD)

	Men		Women		Total	
	1981	1993	1981	1993	1981	1993
14 years	10.1	—	6.1	—	8.1	—
15-19	30.2	20.2	20.0	17.2	25.0	18.7
20-24	65.0	69.0	41.0	53.3	50.5	60.7
25-29	94.0	93.4	41.0	62.7	66.0	77.2
30-34	97.0	97.0	41.0	57.7	68.2	76.9
45-64	86.3	75.0	33.4	32.0	59.2	52.5
Over 65	25.0	11.0	6.9	3.7	15.0	7.0

Source: NSSG Annual Labour Force Surveys

FIGURE 2
PARTICIPATION RATES IN GREECE



Source: NSSG Annual Labour Force Surveys.

The decline in participation rates for young men was due to the fact that teenagers tend to stay longer at school, and more of them continue with further education (a similar – albeit less marked – decline can also be observed in the participation rates for young women). The decline in participation rates for older men, however, was probably a reflection of ‘discouraged worker’ effect. As Table 2 shows, the largest decline in male participation rates (for all age groups) during 1981–93 was observed for men with little or no schooling, while male participation rates in all other educational categories declined only slightly or increased. It appears that a large number of older men with little or no education decided to leave the labour market during the 1980s, presumably because job opportunities for them declined. Table 2 also shows that the increase in female participation rates has been more pronounced for women with at least nine years of education.

TABLE 2
PARTICIPATION RATES BY SEX AND LEVEL OF EDUCATION, SELECTED CATEGORIES
(PERCENTAGE OF POPULATION OVER 14 YEARS OLD)

	Men		Women		Total	
	1981	1993	1981	1993	1981	1993
University graduates	83.1	79.6	73.4	77.0	79.5	78.5
Secondary education (12 years) graduates	78.6	72.4	38.5	46.7	56.6	59.2
Completed 9 years of education	49.2	51.7	13.5	24.0	33.5	39.0
Completed primary (6 years) education	78.1	64.2	29.3	30.4	54.0	46.6
Not completed primary education	63.2	35.4	30.3	18.2	44.0	24.8
No schooling	41.5	27.0	20.6	11.6	25.0	15.4

Source: NSSG Annual Labour Force Surveys

As a result of these developments, the profile of the labour force became more female, somewhat younger (despite a greying population), and substantially better educated during the 1980s and early 1990s: women made up 37 per cent of the labour force in 1993, compared with 31 per cent in 1981; workers younger than 30 made up 27 per cent of the labour force in 1993, as opposed to 23 per cent in 1981 (Table 3); and 45 per cent of the labour force in 1993 had at least a secondary or professional education degree, as opposed to 25 per cent in 1981 (Table 4).

TABLE 3
AGE PROFILE OF THE GREEK LABOUR FORCE

Age (years)	1981	
	Men %	Women %
14	0.3	0.4
15-19	4.3	6.2
20-24	5.5	11.5
25-29	10.6	11.3
30-44	35.3	33.3
45-64	38.2	33.2
65+	5.7	4.1

Age (years)	1993	
	Men %	Women %
15-19	2.8	4.2
20-24	8.8	12.7
25-29	11.8	14.8
30-44	37.3	38.8
45-64	36.2	27.4
65+	3.1	2.1

Source: NSSG Annual Labour Force Surveys.

Employment

Employment rose from 3.5 million in 1981 to 3.7 million in 1993. Behind this modest increase was a large decline in agricultural employment (by almost 300,000, a 27 per cent drop) and a smaller decline in manufacturing employment (by about 100,000, a 15 per cent drop), which were more than offset by increases in employment in the service sector.

Women were the clear losers from the decline in agricultural employment. In 1981, 42 per cent of all employed women worked in agriculture. Half of all agricultural jobs lost during 1981-93 were jobs for women. Despite this, the share of women in total employment increased during this period; indeed, the total number of employed men remained unchanged during 1981-93, and the entire increase in employment reflected more jobs for women.

It is unfortunately not possible with the available data to establish whether the new jobs in the service sector went to workers released from the agricultural sector or to new entrants in the labour force. Data on the

TABLE 4
EDUCATION PROFILE OF THE GREEK LABOUR FORCE

Education Level	1981	
	Men %	Women %
University Graduates	8.0	8.9
University Students	0.8	0.8
Secondary Education	15.9	20.2
9 Years Education	8.2	3.7
Primary Education	54.1	42.3
Less than Primary Education	12.9	24.2

Education Type	1993	
	Men %	Women %
University Graduates	11.6	14.5
University Students	0.1	0.1
Secondary Education	31.0	35.4
9 Years Education	11.4	7.5
Primary Education	41.6	35.8
Less than Primary Education	4.2	6.6

Source: NSSG Annual Labour Force Surveys

composition of employment by degree of educational achievement could provide some indication; however, these are available only after 1987. This limitation notwithstanding, the data strongly suggest that – as one might expect – the composition of employment has changed rapidly in favour of educated workers, particularly university graduates, to the detriment of relatively uneducated workers. As it is likely that workers leaving agriculture were probably less well-educated than those entering the labour force, the tentative conclusion is that few of the workers who lost agricultural jobs were successful in finding jobs in the service sector; the rest either became unemployed or dropped out of the labour market.

Finally, the sectoral restructuring had a significant impact on the professional composition of employment. As the bulk of agricultural employment was accounted for by self-employed or unpaid family members (these two categories added up to 90 per cent of total agricultural employment throughout the period), the loss of agricultural jobs implied a decline in the share of these categories of workers in total employment. The share of the self-employed in total employment, in particular, fell from 31 per cent in 1981 to 27 per cent in 1993. To put

this in some perspective, however, it should be noted that despite this decline, Greece still has by far the highest proportion of self-employed workers in the OECD, significantly higher than Italy, Spain, and Portugal, and three to four times that in northern European countries (Table 5).

TABLE 5
COMPARISON OF NON-AGRICULTURAL SELF-EMPLOYMENT SHARES
(PERCENTAGE OF TOTAL CIVILIAN EMPLOYMENT)

	1983	1990
Belgium	12.8	12.9
Denmark	6.8	7.2
Finland	8.0	8.8
France	10.6	10.3
Germany	7.6	7.7
Greece	27.7	27.2
Italy	21.7	22.3
Netherlands	7.9	7.8
Spain	18.7	17.1
Portugal	17.3	18.5
United Kingdom	10.7	11.6

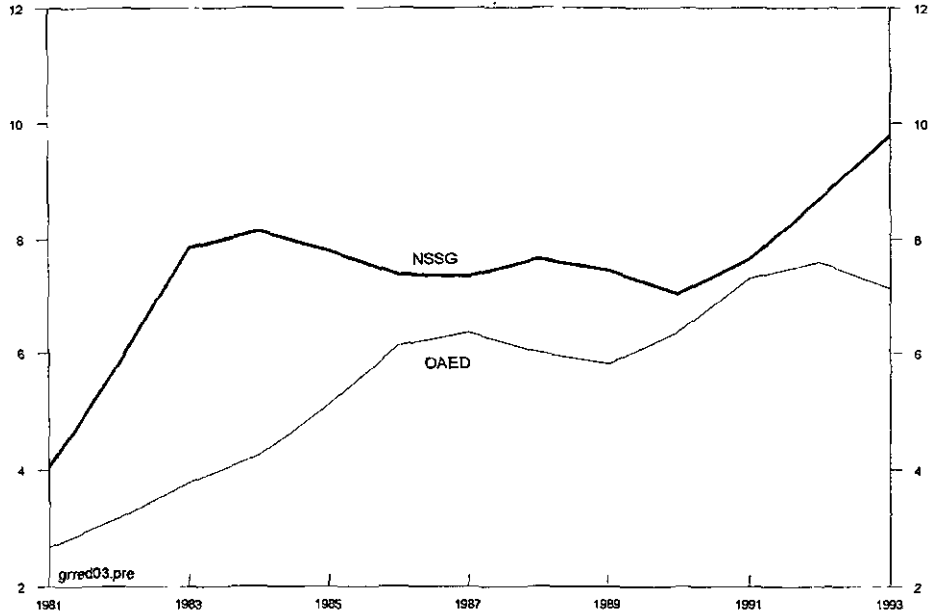
Source: OECD (1992)

Size and composition of unemployment

There are two sources for unemployment data in Greece: the NSSG Annual Labour Force Surveys (which were discussed above), and the registration of unemployed individuals at the local offices of the Manpower Employment Organization (OAED), the agency that administers unemployment benefits. Figure 3 compares the two series. As one would expect, the number of the registered unemployed is consistently lower than that reported in the surveys, since registration makes sense only if the unemployed person is eligible for benefits; therefore, most unemployed with no work experience (a requirement for being eligible for benefits) do not bother to register.

In addition to the limitations of these two data sources, it has been argued that the measurement of unemployment in an economy like Greece is problematic, because of the large number of self-employed people and the strongly seasonal nature of certain types of employment, notably tourism. More broadly, recent OECD studies have questioned the appropriateness of unemployment as a measure of labour market slack (OECD 1994). Therefore, before examining in more detail the data

FIGURE 3
UNEMPLOYMENT RATE
(PERCENTAGE OF LABOUR FORCE)



on unemployment, it is worth looking briefly at alternative measures of labour market slack.

The employment-to-population ratio, a commonly-used alternative measure, followed a path broadly similar to that of the unemployment rate in the 1980s, falling from 47 per cent in 1981 to less than 44 per cent in 1993. More sophisticated measures, like the number of discouraged workers (OECD 1994), are not available for Greece. Finally, although according to OECD data the number of involuntary part-time workers in Greece declined somewhat (from 3.3 per cent of the labour force in 1983 to 2.5 per cent in 1991), a much higher share of part-time workers are involuntary in Greece than in the rest of the OECD, suggesting a significant degree of labour market slack (Table 6).

TABLE 6
GREECE COMPARISON OF RATES OF INVOLUNTARY PART-TIME EMPLOYMENT,
1991 (PERCENTAGE OF TOTAL PART-TIME WORKERS)

	Part-time for economic reasons, usually work full-time	Part-time due to inability to find full-time job	Total
Belgium	0.8	27.1	27.9
Denmark	1.8	14.0	15.8
France	2.9	—	—
Germany	0.4	4.2	4.6
Greece	41.7	28.6	70.3
Italy	8.1	34.9	43.0
Netherlands	0.6	16.2	16.8
Spain	0.3	1.1	1.4
United Kingdom	3.1	1.7	4.8

Source: OECD (1994)

Turning again to unemployment, the number of the unemployed in Greece more than doubled between 1981 and 1993 (from 148,000 to 403,000, or from 4 per cent to 10 per cent of the labour force).

Who are the unemployed? Despite the substantial gains in employment made by women, the sizeable increase in female participation rates during the 1980s meant that most of the unemployed continued to be women. In fact, the differential between male and female unemployment rates widened during this period, with the rate for women rising from 6 per cent in 1981 to almost 16 per cent in 1993.

The age profile of the total unemployment pool appears to have changed relatively little: 40–45 per cent of the unemployed were less

than 30 years old throughout this period. However, there were significant changes in the age profiles of the male and female unemployed groups. In both groups, the share of 15–19 year-olds in total unemployment declined, as young people tended to stay longer at school. But while for men the largest increase in unemployment was registered in the 20–24 age bracket, for women the largest increase was in the 30–44 age bracket. It is likely that these are the women who were originally employed in agriculture as self-employed or unpaid family members, lost their jobs, and were unable to find new employment.

Although older women displaced from agriculture probably accounted for a significant part of the increase in unemployment, the data suggest that there is also a considerable youth unemployment problem in Greece. Table 7 presents the ratio of youth to adult unemployment rates for a number of countries. The size of the problem in Greece is second only to that in Italy. Moreover, although the relative unemployment rates for teenagers and young adults declined in most countries, they remained relatively unchanged in Greece during this period.

TABLE 7
COMPARISON OF RELATIVE UNEMPLOYMENT RATES OF TEENAGERS
AND YOUNG ADULTS
(RATIO TO ADULTS' UNEMPLOYMENT RATES)

	Ratio of teenage to adult unemployment rates (a)			Ratio of young adults to adult unemployment rates (a)		
	1983	1989	1993	1983	1989	1993
Finland	3.6	2.6	2.1	1.9	1.9	1.9
France	5.0	2.2	2.7	3.0	2.3	2.5
Germany	1.4	0.9	0.9 (b)	1.7	1.1	1.0 (b)
Greece	3.5	4.0	4.0	3.2	3.9	3.3
Italy	8.8	5.3	5.4 (c)	5.6	4.0	3.9 (c)
Portugal	3.6	3.0	2.8	3.5	3.0	2.2
Spain	4.1	2.4	2.6	2.8	2.3	2.1
United Kingdom	2.3	1.7	2.2	1.9	1.6	1.9
Average	4.0	2.8	2.8	2.9	2.5	2.4

Source. For Greece, NSSG Annual Labour Force Surveys; for other countries, OECD (1994).

(a) Teenagers refer to those aged 15–19 except Italy (14–19) and Spain, United Kingdom (16–19). Young adults are those aged 20–24. Adults are those aged 25–54 except Italy (25–59) and Greece (25–65)

(b) 1990

(c) 1992.

TABLE 8
UNEMPLOYMENT RATES BY AGE AND EDUCATION, 1993
(AS PERCENTAGE)

	No schooling	Not completed primary education	Completed 6 years of education	Completed 9 years of education	Completed 12 years of education	Not completed higher education	University graduates
Men							
Up to 14	–	–	–	–	–	–	–
15–19	0.6	0.6	29.2	31.8	37.7	–	–
20–24	0.9	0.4	11.1	18.0	65.6	0.2	3.8
25–29	0.3	–	13.6	10.7	50.2	0.3	24.3
30–44	0.7	1.5	36.1	13.3	34.6	0.2	13.6
45–64	2.6	5.1	59.9	7.1	21.5	0.3	3.5
65–	–	14.3	51.1	14.3	14.3	–	–
Women							
Up to 14	–	–	–	–	–	–	–
15–19	0.9	0.6	14.0	23.0	61.2	–	–
20–24	0.1	0.1	6.8	10.9	69.7	–	12.3
25–29	0.9	0.9	10.3	8.4	52.3	–	27.2
30–44	1.4	0.6	37.8	10.2	39.2	0.2	10.7
45–64	2.3	6.9	60.6	5.6	19.9	–	4.6
65–	50.0	–	50.0	–	–	–	–

Source: NSSG Annual Labour Force Surveys

TABLE 9
COMPARISON OF YOUTH UNEMPLOYMENT RATES BY LEVEL OF EDUCATIONAL ATTAINMENT, 1991
(PERCENTAGE OF TOTAL FOR EACH AGE GROUP)

	Total	15-19 years Less than Upper Secondary	Upper Secondary and higher	Total	20-24 years Less than Upper Secondary	Upper Secondary	Post- Secondary
Belgium	19.9	22.7	10.5	13.9	21.7	11.9	5.5
Denmark	3.7	3.1	4.8	15.9	27.2	13.2	12.1
Finland	16.5	16.3	17.3	12.3	18.1	11.2	8.8
France	23.3	23.5	21.9	18.4	26.0	15.3	9.1
Germany	6.8	6.6	8.3	6.6	10.1	5.5	5.9
Greece	27.2	18.6	43.1	23.4	13.7	27.9	33.4
Italy	35.9	32.8	62.5	28.9	22.7	34.8	47.7
Netherlands	15.2	15.7	12.3	8.2	10.2	7.0	8.5
Spain	35.5	33.8	38.6	29.9	29.9	27.8	37.6
Sweden	6.6	6.5	6.8	5.9	11.4	5.4	3.4
United Kingdom	15.4	24.8	11.7	13.1	25.4	10.6	8.3

Source: For Greece, NSSG Annual Labour Force Surveys, for other countries, OECD (1994).

As regards the educational profile of the unemployed, unemployment is persistently higher among those with some education, and the share of those with strong educational qualifications in total unemployment increased during the 1980s. Table 8 shows the composition of the unemployed by age and education for 1993. For both men and women, the majority of the unemployed in the age group 45–64 have relatively low qualifications.

The large number of young unemployed with strong educational qualifications is not a phenomenon unique to Greece. Table 9 compares unemployment rates of young people by educational attainment in a number of OECD countries in 1991. For both teenagers and young adults from the three countries with the highest unemployment rates – Italy, Spain and Greece – higher unemployment rates are associated with higher educational attainment. (6 years of education), while those unemployed aged between 20–29 have either completed 12 years of education or are university graduates.

Duration and persistence of unemployment

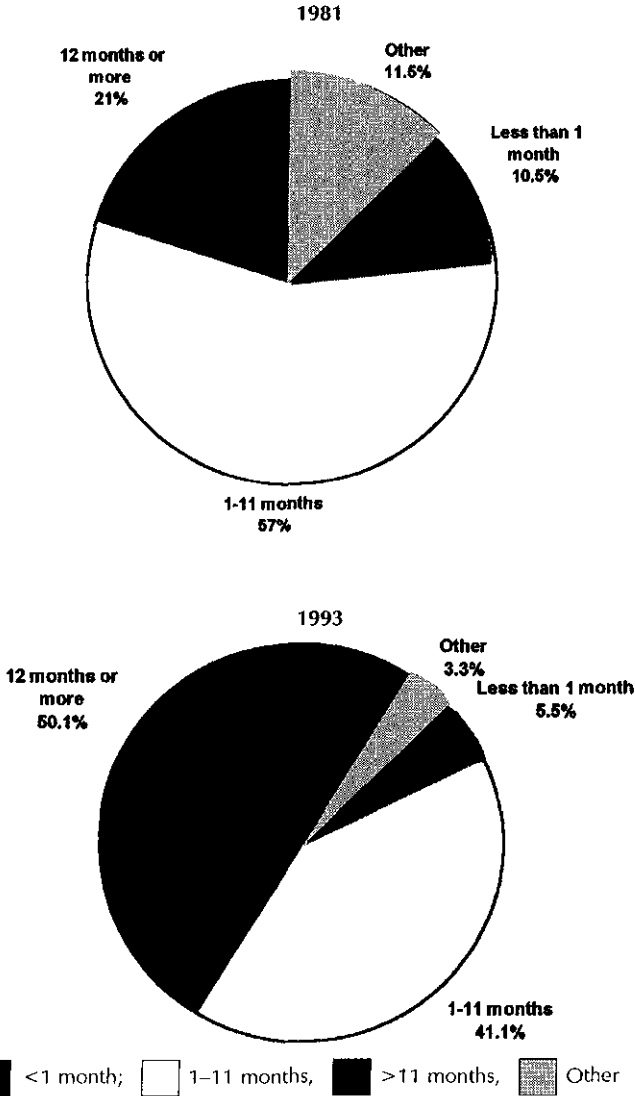
The overall rise in unemployment in Greece in the 1980s and early 1990s has also been associated with an increase in long-term unemployment. During this period, there was a steady increase in the duration of unemployment. Figure 4 shows that the share of unemployed workers who have been out of work for less than a year declined from 57 per cent in 1981 to 41 per cent in 1993 while, at the same time, the share of those who have been unemployed for more than a year (the conventional definition of long-term unemployment) rose from 21 per cent in 1981 to 50 per cent in 1993.

Although the experience with long-term unemployment in Greece was not out of line with that in other OECD countries, women in Greece were particularly affected. Table 10 compares the long-term unemployment rates (unemployed for more than a year in per cent of the labour force) in selected European countries. The rate for Greece is close to the average of the European OECD countries (4.7 per cent). At 8.5 per cent, however, the rate for women is more than three times that for men, and well above the European average. Furthermore, the incidence of long-term unemployment (the share of long-term unemployment out of total unemployment) was consistently higher for women than for men.

Another important fact is the exceptionally high long-term unemployment rate for young people in Greece: as Table 10 shows, this rate for the 15–24 age bracket was 13.6 per cent, compared to an average of 8 per cent in the European OECD countries. Greece

experiences the highest long-term unemployment rates for this age group after Spain and Italy. In addition, Greece experiences high rates of incidence of long-term unemployment for young people.

FIGURE 4
DURATION OF UNEMPLOYMENT



Source: NSSG Annual Labour Force Surveys

TABLE 10
COMPARISON OF LONG-TERM UNEMPLOYMENT RATES
(IN PERCENTAGES)

	Total	Men	Women	15-24	25-54	55+
Belgium	4.3	2.8	6.4	6.3	4.1	2.7
Denmark	2.7	2.4	3.0	1.8	2.8	3.4
Finland	5.4	6.6	4.0	4.9	5.2	6.8
France	3.8	2.9	4.8	4.5	3.6	4.1
Germany	3.1	2.4	4.0	1.8	3.0	5.1
Greece	4.8	2.5	8.5	13.6	3.9	1.1
Italy	6.0	4.3	8.8	17.9	4.0	0.8
Netherlands	2.9	2.4	3.6	2.6	3.0	2.3
Portugal	2.3	1.8	3.1	4.1	2.1	1.6
Spain	11.4	8.1	17.2	18.3	10.5	6.4
United Kingdom	4.4	5.8	2.5	5.6	3.9	5.0
OECD	2.3	2.2	2.5	3.4	2.1	2.0
OECD-Europe	4.7	4.1	5.6	8.0	4.2	4.3

Source: OECD (1995)

Finally, data on flows into and out of unemployment provide some *prima facie* evidence that unemployment in Greece is persistent. Table 11 shows OECD estimates for flows into and out of unemployment in 1993 (OECD 1995).³ The table shows that there are sizeable cross-country differences between inflow and outflow rates. For example, inflows into unemployment were the highest in Denmark and Finland, both of which had high unemployment rates in 1993 (12.2 and 17.9 per cent respectively), although in these two countries outflow rates were even higher; and Portugal, which had the lowest unemployment rate in 1993 (5.5 per cent), reported a high outflow rate. These large differences make the data hard to interpret. Nevertheless, it can be argued that a low outflow rate is an indication of unemployment persistence. Thus, ranking countries in Table 11 in terms of the inverse of the outflow rate, suggests that unemployment in Greece has the third highest degree of persistence, after Spain and France.

This impression is borne out by a formal econometric analysis of unemployment persistence in Demekas and Kontolemis (1996). Our starting point is the simple economic model set out in Alogoskoufis and Manning (1988a and 1988b). In this framework, there are three basic sources of unemployment persistence. The first reflects insider dynamics, in other words the tendency of trade unions to be 'selfishly' concerned with the welfare of their employed members, the insiders. At the limit, the perfect 'insider' union would set a wage that is consistent with full

TABLE 11
COMPARISONS OF MONTHLY FLOWS INTO AND OUT OF UNEMPLOYMENT IN 1993

	<i>Inflows</i>						<i>Outflows</i>					
	Total	Men	Women	15-24	25-54	55+	Total	Men	Women	15-24	25-54	55+
Belgium	0.42	0.43	0.41	0.93	0.53	0.02	8.6	9.2	8.0	11.7	7.7	3.3
Denmark	1.75	1.91	1.61	3.45	2.09	0.35	21.4	21.6	21.4	29.4	19.3	16.7
Finland	2.83	3.57	2.09	4.20	2.99	0.74	13.9	14.1	13.6	22.6	12.8	4.8
France	0.34	0.35	0.34	0.44	0.41	0.09	3.4	3.1	3.6	4.4	3.2	2.5
Germany	0.57	0.64	0.51	0.76	0.79	0.16	9.0	9.3	8.8	13.9	9.0	4.4
Greece	0.30	0.30	0.30	0.95	0.31	0.02	4.7	5.6	4.0	6.1	3.8	2.3
Italy	0.41	0.44	0.38	0.82	0.33	0.04	9.5	8.9	10.0	9.6	9.3	9.8
Netherlands	0.24	0.28	0.19	0.41	0.29	0.02	6.4	6.5	6.3	11.4	5.1	0.0
Portugal	0.34	0.37	0.31	0.63	0.31	0.05	15.3	18.3	12.6	19.2	13.8	7.8
Spain	0.56	0.71	0.42	1.07	0.52	0.12	1.8	2.0	1.5	2.8	1.2	1.2
United Kingdom	0.67	0.82	0.53	1.7	0.72	0.14	9.3	7.8	12.4	11.4	9.1	5.0

Source: OECD (1995)

employment of its current members, which may be different than the market equilibrium rate. In such a case, unemployment will show a high degree of persistence. For example, if there is an unexpected demand shock and, as a result, a number of previously-employed workers lose their 'insider' status, unemployment would stay at the new, higher level permanently. More realistically, of course, outsiders are likely to have some influence on the union's wage demands, and 'hysteresis' (see below) is temporary: in the previous example, unemployment would rise initially and then eventually decline towards its equilibrium level, with the speed of adjustment depending on the relative importance of the two groups, the insiders and the unemployed outsiders. The greater the influence of insiders, the more persistent unemployment will be.

The second source of unemployment persistence is real wage rigidity: if wage setters demand real wages consistent with their own 'target' real wage level, irrespective of the prevailing economic conditions – what we refer to as persistence of wage aspirations – a rise in unemployment will exert only a limited downward pressure on real wage demands. As a result, once it rises, unemployment will remain high, at least in the short run.

The last source of unemployment persistence arises on the demand side. If, owing to costs of firing and hiring workers, firms react slowly to changes in conditions when making their employment decisions, then an unexpected expansionary shock will not reduce unemployment as quickly as might be expected. This phenomenon is called labour demand hysteresis in economic theory. High costs of hiring and firing would also generate labour demand hysteresis in the case of an unexpected contractionary shock, if the costs of adjusting the level of employment are symmetric.

The results of our analysis, presented in detail in Demekas and Kontolemis (1996), confirm that unemployment in Greece displays a very high degree of persistence, even by the standards of most other European labour markets. There is some evidence of insider dynamics behind this, with the unions focused on preserving the employment of their members, rather than wages, but the major factors behind unemployment persistence appear to be the inflexibility of real wage aspirations of wage-setters and, to a lesser extent, labour demand hysteresis.

What have we learnt so far? The large increase in unemployment in Greece during the 1980s was the reflection of major shifts in the structure of both the demand and the supply of labour. On the demand side, the relative decline of agriculture appears to have displaced a large number of relatively low-skilled farm workers, most of them women. At

the same time, on the supply side, the increase in the female participation rate and the rapid improvement of the educational profile of the labour force brought into the labour market a large number of mostly young, well-qualified workers. These developments took place at a time of a significant slowdown in the pace of economic growth and job creation in Greece and, as a result, unemployment increased. This increase would have been much greater had some workers – mostly older men – not decided to drop out of the labour market altogether.

But this mechanical interpretation opens more important questions. Why did the labour market fail to adjust to the new supply and demand conditions? Why did the new entrants in the labour market not drive wages down? It is possible that skill mismatch was a factor, especially as regards the older workers displaced from agriculture. But this cannot explain the increase in unemployment among young, well-educated workers, the lengthening of the duration of unemployment, and its persistence in the face of the expansionary policies of the 1980s.

Our formal analysis of unemployment persistence suggests that the major factors behind it were the inflexibility of real wage aspirations of wage-setters and slow adjustment (hysteresis) of labour demand. What in turn explains these phenomena? The former could be due to a host of factors, such as: a generous unemployment benefit system that raises the workers' reservation wage; a preference for stable living standards; or the absence of consensus-building mechanisms that would ensure some real wage flexibility in the face of rising unemployment (such as a centralized bargaining system as suggested by Calmfors and Driffil 1988). For the latter, on the other hand, the usual suspect suggested by economic theory and evidence is labour market legislation, in particular heavy firing costs, which raise the costs of adjusting a firm's level of employment.

In the following section, we review labour market institutions in Greece, including employment protection legislation, the unemployment benefit system, and the wage bargaining system. And in Section 4, we discuss an additional mechanism which, in our view, has contributed significantly to the persistence of real wage aspirations: the government's employment and wage decisions during the 1980s.

LABOUR MARKET INSTITUTIONS IN GREECE

In this section, we examine regulations on dismissal, the unemployment benefit system, and the wage determination system in Greece, and compare them to those elsewhere, in order to assess whether these institutions are likely to have contributed to the observed persistence of unemployment.

Regulations on dismissal

Restrictions on or costs associated with firing may be seen as increasing the fixed cost of labour. In theory, this would result in smoother and less pronounced employment fluctuations than otherwise (in other words, the phenomenon of labour demand persistence discussed above). However, there is no consensus in the literature on the overall effects of these restrictions on the average level of employment or unemployment over the cycle. On the one hand, they need not have any effect at all if wage earners are willing to accept (and minimum wage laws do not prevent) wages that clear the market; indeed, it may be argued that standardization of the contractual rules across firms may reduce information and transaction costs, thus rendering the market more efficient. On the other hand, such restrictions may have indirect effects on the level of unemployment by increasing the incidence of long-term unemployment through reduced labour turnover, thus speeding up skill loss among the unemployed.⁴

The obligation to make a severance payment when dismissing individual workers is the most common dismissal cost. Table 12 summarizes the existing legislation on severance payments in Greece.

TABLE 12
SEVERANCE PAYMENTS

Blue-Collar		White-Collar	
Service	Severance Pay	Service	Severance Pay
less than 1 year	5 days	less than 1 year	1 month
1-2 years	7 days	1-4 years	2 months
2-5 years	13 days	4-6 years	3 months
5-10 years	26 days	6-8 years	4 months
10-15 years	52 days	8-10 years	5 months
15-20 years*	78 days	10 years	6 months
over 20 years *	92 days	over 10 years	1 month's salary per year of service (up to 24 months)

*New category introduced in 1989.

For both blue- and white-collar workers, benefits depend on years of service. For blue-collar workers, the last two categories were added in 1989; prior to that, any worker with service of more than 10 years was receiving a payment equivalent to 52-days' wages only. For white-collar workers with service of more than 10 years, in addition to the ceiling of 24 monthly salaries, there is also a ceiling on the amount of the severance pay (it cannot exceed eight times the minimum daily wage multiplied by 30).

In addition to severance payments, Greek legislation also restricts mass dismissals. Mass dismissals are defined as those that involve at least five workers for firms employing up to 50 workers; and 2 per cent of the work force of firms with more than 50 workers. Mass dismissals require prior consultations between unions and the employers and, if these fail, arbitration by the Ministry of Labour.

The unemployment benefit system

The economic literature has pointed out that, aside from equity considerations, there are good efficiency arguments for providing some income support during unemployment. The lack of complete insurance markets means that the availability of a certain income during (unexpected) spells of unemployment, by minimizing disruption of the unemployed individual's life, facilitates job search. Seen as a subsidy on job search, unemployment benefits could improve job matches and increase productivity. Moreover, the provision of unemployment benefits, by increasing the mean and reducing the variance of expected permanent income, should encourage labour force participation (Layard *et al.* 1991; OECD 1991). At the same time, however, it is clear that unemployment benefits, just like any other non-labour income, tend to increase the reservation wage and thus weaken the incentive for job search and the willingness to accept job offers, and to strengthen the bargaining power of unions over wages. These two factors lead to downward wage rigidity and a higher equilibrium unemployment rate. This has generally been confirmed by empirical studies (see the survey in Atkinson and Micklewright (1991)).⁵

Unemployment benefits in Greece are administered by the Manpower Employment Organization (OAED), and financed by employers' and employees' contributions (3 per cent and 1 per cent of gross salary, respectively). Eligibility for unemployment benefit depends on a number of conditions: the applicant must have been dismissed (resignation disqualifies the applicant), and must have worked at least 125 days at work during the 14 months prior to the termination of employment (separate regulations exist for seasonally employed persons). The duration of the unemployment benefit depends on the number of days the applicant has worked over the 14 months prior to dismissal, as well as on his or her age. Those who qualify with the minimum service (125 days in the last 14 months) receive the benefit for five months, while those who have worked 300 days or more during this period receive it for 12 months.⁶ Finally, the replacement rate is 50 per cent for white-collar and 40 per cent for blue-collar workers.

The wage determination system

Institutional arrangements for wage setting differ greatly between countries, varying from very centralized systems (for example Austria) to very decentralized ones (such as the USA). Bruno and Sachs (1984) first challenged the conventional view that more decentralized systems are better by constructing an index of the degree of centralization (or 'corporatism') of the wage bargaining system and showing that more corporatist countries performed better in response to the first oil shock. Calmfors and Driffil (1988) ranked countries according to the degree of centralization of the wage bargaining system and found that 'extremes work best'; that is, both centralized and decentralized systems are associated with better labour market performance than intermediate ones. Calmfors (1993) provided some microeconomic foundations for this 'hump-shaped' relationship between centralization and performance, arguing that centralization in wage bargaining – defined as inter-union and inter-employer co-operation at the national level – helps internalize a number of negative externalities that arise in situations of imperfectly decentralized wage setting.

Several criticisms have been levelled against this model. First, the simple hump-shape model may not hold in cases of imperfect markets, or economies that are substantially open to foreign competition; indeed, the more open the economy, the smaller some of the externalities and, thus, the gains from centralization. Second, it may be argued that what matters for labour market performance is not the degree of centralization *per se*, but the degree of social consensus and enforceability of agreements; McCallum (1983) found that the degree of consensus, as proxied by strike levels, was a good indicator of economic performance in the 1970s. Third, the benefits of centralized systems may decline quickly as the economy moves towards a 'post-Fordist' production environment, since developments in production technology and work organization may increase the proportion of firms that find decentralized bargaining more profitable (Ramaswamy and Rowthorn 1993). Finally, this model disregards the compression of relative wages that would tend to arise in a centralized system, as the decision-making process in centralized unions would tend to favour the 'median voter'. As a result, there is little consensus in the literature on the desirable degree of centralization in a wage determination system.

In Greece, after the end of the military dictatorship in 1974, wage bargaining was established in the private sector, as well as the wider public sector (state-owned banks, state enterprises); in the government, wage-setting was part of budgetary policy.

Collective negotiations are centralized: the national-level negotiations take place between the General Confederation of Labour Unions on the one hand, and three employers' associations on the other (*the most influential of which is the Industrialists' Association*). These negotiations determine the annual increase in the level of the minimum wage, which then has *erga omnes* value. The duration of these agreements has traditionally been one year, although occasionally (most recently in 1991, 1993, and 1996) two-year agreements have been concluded. In addition to the national negotiations, there are in some cases sectoral agreements.

Union power varies from sector to sector and between the private and public sectors. Unions are more powerful in the wider public sector (public utilities, banks) compared to the private sector; in the former, unions are also able to employ more directly political pressure on the government.

In 1982, the socialist government legislated an automatic wage indexation mechanism (ATA). This was temporarily revoked during the 1985-86 stabilization programme, when wages were frozen, and was finally abolished in 1990. Since then, most collective agreements have included some form of *ex post* indexation in the form of catch-up clauses (increases awarded after the fact if inflation exceeded a certain level foreseen in the agreement).

International comparisons and a preliminary assessment

Table 12 compares some key features of Greece's severance payment regulations and unemployment benefit system to those in other OECD countries. It is, of course, extremely difficult to summarize differences in complex national legislations into a simple table; nevertheless, it is still possible to draw some broad conclusions.

It appears that rules on dismissals in Greece are quite tough. Severance payments are among the highest in the sample on Table 13, while rules on mass dismissals are also stricter than elsewhere. The limit beyond which mass dismissal rules apply (2 per cent of the work force) is lower in Greece than in the relevant EU guideline.⁷ The mandatory intervention of the Ministry of Labour in cases where prior consultation fails to reach agreement may impart a 'anti-dismissal' bias in the system, especially in cases where large firms are concerned. Although there has been no empirical work assessing the impact of these rules on employment in Greece, evidence from Italy – where dismissal rules are also strict – has shown that firing costs have been an important factor in slowing down adjustment of the work force (see the discussion in Demekas 1995).

TABLE 13
COMPARISON OF LABOUR MARKET LEGISLATION

	Severance pay in 1985, in month (c)	Replacement ratio in 1985(a)	Coverage benefit in 1985 (b)	Maximum duration of employment in months
Greece	6	1	50	17
Belgium	1.24	1	60	85
France	5.24	4.2	57	41
West Germany	– (d)	2.6	63	61
Ireland	~	1.25	50	67
Italy	9	2	80	21
Spain	13.56	0.5	80	35
United Kingdom	2.5 (e)	1	36	73
United States	~	0.5	50	34

(a) Gross benefits for a single person under 50 as a per cent of the most relevant wage, normally gross wage.

(b) Percentage of unemployed receiving unemployment compensation.

(c) Number of months' salary given to workers with 10 years of service.

(d) No legislated severance pay, but the employer is obliged to pay to the employee his or her contributions to the pension fund.

(e) 40 per cent for blue-collar worker.

Sources: Own calculations; Demekas (1995); and Layard, Nickell and Jackman (1991).

In contrast, the unemployment benefit system in Greece is not generous: the benefits are low, last a short time and – more importantly – are relevant to a relatively small part of the unemployed.

Regarding the wage determination system, as noted above, theory does not provide a generally-accepted and practical rule for assessing its efficiency. The system in Greece is probably more centralized than most (a quick calculation of the Calmfors and Driffil 'centralization index', described in Appendix 1 of their paper, for Greece would place the Greek wage determination system at a level of centralization between those in Germany and the Scandinavian countries). However, some allowance has to be made for the fact that the wage determination system in Greece covers a much smaller proportion of the work force than in other countries, because of the relatively large number of self-employed workers. In addition, Jecchinis (1994) has argued that, at least in recent years, the wage determination system has become less conflict-prone and more co-operative.

Where does this leave us? Our analysis in Section 1 suggested that there was considerable persistence of real wage aspirations, as well as some hysteresis in the demand for labour. While the strict employment protection legislation in Greece can probably explain a good deal of the latter, it is less clear that labour market institutions are responsible for

the former: unemployment benefits are low, and the verdict on the wage determination system is ambiguous. In the next section, we examine another possibility.

THE IMPACT OF GOVERNMENT WAGE AND EMPLOYMENT POLICIES ON UNEMPLOYMENT

If labour market institutions cannot fully explain the rigidity of real wage aspirations of wage setters which, as we saw, is the single most important factor behind unemployment persistence, then what could be the cause? Surely factors outside the labour market, such as the large black economy and the traditionally strong family ties in Greek society, are important for maintaining workers' reservation wages at a high level despite the increase in unemployment, but the influence of both of these factors has probably declined in the last two decades.

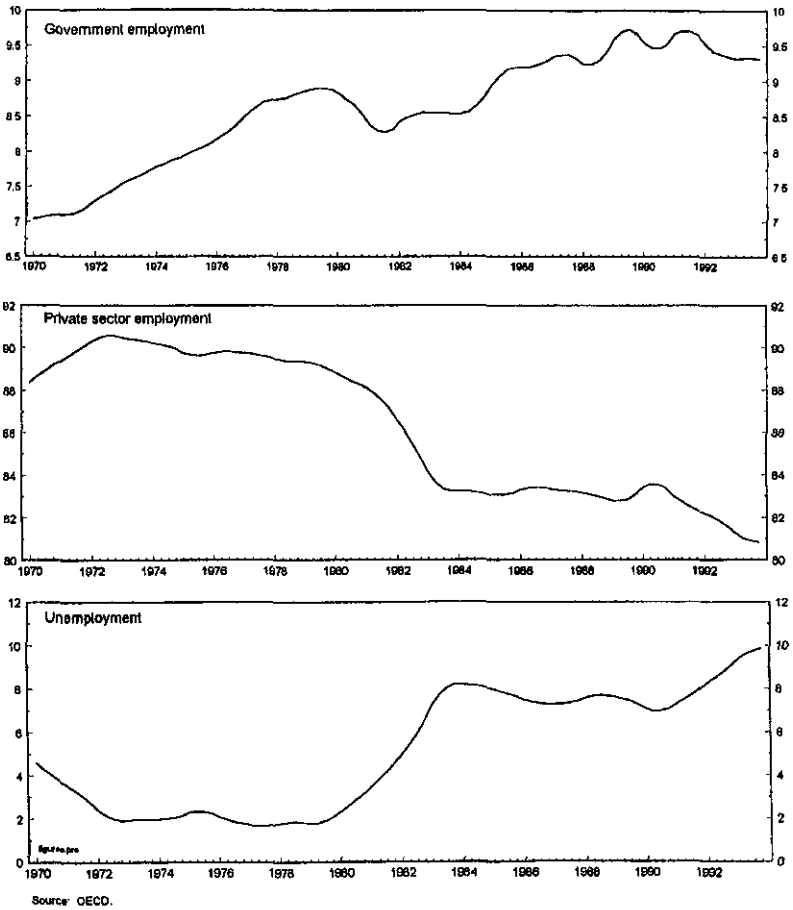
In this section, we discuss a hypothesis that, in our view, can help explain the rise and persistence of unemployment in Greece since the late 1970s: the sizeable increase in government employment and – particularly in the 1980s – in government wages, aside from their effect on the fiscal position and thus the overall macroeconomic conditions, had a direct impact on labour market performance through the labour market dynamics.

During this period, there was rapid increase in the size and influence of the government sector in the Greek labour market: the share of government employment in total labour force almost doubled from its level in the 1960s to reach 8–9 per cent in the early 1990s (more than 12 per cent if public enterprises are included, and 13 per cent if state-owned banks are included). This increase went hand-in-hand with the sharp increase in unemployment (Figure 5).

Moreover, there are substantial and persistent differences in employment conditions between the private and the public sector: government employees enjoy constitutionally-guaranteed life employment, much more lax working conditions, and a generous pension system. For these reasons, government employment is very desirable, while many government employees also have second jobs. Finally, government wage policy in Greece has mirrored the fundamental policy shifts of the 1970s and 1980s. After the end of the seven-year military dictatorship in 1974, wages shot up in both the government and the private sector; growth in the latter initially surpassed that in the former, but in the 1980s this trend was reversed, to resume again in the early 1990s.

Although the recent literature on European unemployment has analyzed the impact of a number of government policies that contributed

FIGURE 5
EMPLOYMENT AND UNEMPLOYMENT AS PERCENTAGE OF LABOUR FORCE



Source: OECD.

to this phenomenon, such as macroeconomic policies, taxation, unemployment benefit and training schemes, and labour market legislation, it has paid relatively little attention to the way the government acts as an employer, and its direct effect on labour market performance (see the survey in Bean 1994). This reflects the implicit assumption that the government's employment and wage decisions do not merit separate consideration, either because they are made on more or less the same grounds as those of private sector employers, or because

they have no particular bearing on aggregate labour market performance.

Both of these postulates are questionable. On the one hand, public choice theory has argued that government actions – and particularly government employment policy – are dictated by the interests of the bureaucracy and the need to provide political favours to interest groups in order to stay in office (Niskanen 1971; Buchanan 1977; Courant et al. 1979).⁸ Freeman (1986) has shown that wage determination through bargaining in the public sector leads to a different outcome than in the private sector, because of the public sector unions' ability to exploit the political process;⁹ in their survey, Ehrenberg and Schwarz (1986) conclude that 'labour market models based upon [...] profit maximization are clearly inappropriate for the government sector'. On the other hand, there is strong empirical evidence that the size of the government has a negative impact on overall growth performance (see Barro 1990 and the references therein), and some evidence that it has positive effects on unemployment persistence (Barro 1988; Layard et al. 1991).

In Demekas and Kontolemis (1996) we build and test a model with endogenous unemployment, in which government and private sector employers compete for the same workers but make employment and wage decisions on the basis of different objective functions, and workers are free to decide to which sector to apply for employment, thus equalizing expected returns in each type of employment. The government's objective function is formulated so as to accommodate both a 'benign' version of the government maximizing social welfare and a more 'populist' version, in which the government maximizes its own influence or tries to ensure voter support by minimizing unemployment (in line with public choice theory).

The basic economic intuition of this model is the following. As government wages (or non-wage benefits, including conditions of employment, and so on) are raised, all other things being equal, workers 'demand' a correspondingly higher wage at the private sector (correcting for the probability of finding and keeping a private sector job). As a result, demand for private sector employment falls, and unemployment rises. When the government expands public sector employment, the probability of finding a public sector job goes up and, as a result, workers 'demand' a higher premium in order to accept risky private sector jobs. Demand for private sector employment falls once more.

To test this model, we estimate a vector auto-regression (VAR), and we test for the existence of the long-term relationships and the restrictions implied by the structural model. The econometric analysis

confirms the basic hypothesis that increases in government wages lead to relatively higher increases in private sector wages, thus contributing directly to an increase in the unemployment rate. Expanding government employment also leads to a (small) increase in private sector wages and, through this channel, an increase in unemployment. The net effect on unemployment in the latter case is, of course, ambiguous, but the results show that expanding government employment would not be as effective in reducing unemployment as it might appear at first.

CONCLUSIONS

During the 1980s and early 1990s, the Greek labour market performance deteriorated sharply: the unemployment rate increased from about 2 per cent of the labour force in the 1960s and early 1970s to an average of 8 per cent in the 1980s and close to 10 per cent in the 1990s; the employment-to-population ratio showed a similar deterioration.

This development reflected fundamental changes in the supply and demand for labour. The increase in the female participation rate and the rapid improvement of the educational profile of the labour force brought into the labour market a large number of mostly young, well-qualified workers, and the restructuring of production released from the declining agricultural sector a large number of relatively low-skilled farm workers, most of them women. At the same time, the rate of growth and job creation slowed down sharply. These factors, however, do not by themselves explain the rise in unemployment: a well-functioning labour market should have adjusted to the changing supply and demand conditions. This did not happen: unemployment increased (and would have increased by more if some workers did not choose to drop out of the labour market altogether); spells of unemployment became longer (especially for younger, better-educated workers); and the Phillips curve shifted outward. The labour market is perhaps the only part of the Greek economy that looks today much like Europe's.

A formal analysis of unemployment persistence in Greece points the finger at the inflexibility of real wage aspirations of wage-setters and, to a lesser extent, the slow adjustment of demand to shocks as the major factors behind the deterioration of labour market performance during the last 15 years. Are labour market institutions to blame? For the latter, probably yes: dismissal regulations are onerous in Greece, and other costs that we have not discussed in this paper – such as state bureaucracy – may have also contributed to discouraging job creation (at least in the formal sector). As regards the former, namely the rigidity of real wages

in the face of rising unemployment, we think that the institutions do not tell the whole story. Instead, our analysis suggests that the rapid expansion in the number of easy, life-time government jobs, and the increase in the public/private relative wage during the 1980s may be directly responsible, by depressing private sector employment and, at the same time, raising workers' effective reservation wage.

The picture may have changed somewhat in the 1990s, when macroeconomic policies were tightened and the economy was liberalized, and there is some evidence of a negatively-sloping Phillips curve. In addition, two other factors that are not covered in this article may have contributed to the most recent rise in unemployment. First, there has been an increase in non-wage labour costs: contributions to social security, health, and unemployment insurance rose from 23 per cent of the wage in 1989 to almost 29 per cent in January 1993, but given the sizeable informal sector in Greece, as well as the large share of self-employment (the highest in Europe), the effect of this increase is hard to assess. Second, in the 1990s, there has been an increase in (legal and illegal) foreign workers in Greece from the former eastern bloc countries. Although their number is still small (estimated at about 2 per cent of the labour force), they may have had an impact on unemployment.

Yet, even if the nature of unemployment in Greece started to change in the most recent years, designing a successful strategy against unemployment today still requires understanding and addressing the 'original sin' behind the deterioration of the performance of the labour market in the 1980s.

NOTES

1. Except in 1983, when the survey was conducted during the last quarter of the year. As a result, the Survey results for 1983 are not comparable to those from other years.
2. Working age in the NSSG Surveys is defined as 14–64 years.
3. Inflows are proxied by stock data on those unemployed for one month or less, while outflows are calculated by an identity which links changes in the stock of unemployed to inflows and outflows.
4. There is some evidence supporting the view that adjustment costs have a symmetric effect during upturns and downturns (Bertola 1990). However, there is also evidence to the contrary (Lazear 1990; Heylen 1993; OECD 1993). Also, a number of models with non-linear or asymmetric adjustment costs are capable of generating – at least under certain conditions – effects on the level of unemployment (for a discussion, see Bean 1994).
5. Interestingly, studies with panel data have shown that unemployment benefits have small effects on the individual's willingness to leave unemployment and accept a job. Cross-country studies, on the other hand, have tended to come up with substantially higher estimates of effects of benefits on unemployment (Bean et al. 1986; Burda

1988; Nickell 1990; Layard et al. 1991). This is probably due to the fact that cross-country data capture the effects that benefits have on unemployment through increasing the bargaining power of unions and leading to higher average wages, which are not likely to be captured in panel data.

6. For first-time claimants, the period is 24 months.
7. 20 workers for firms employing 20–100 workers; 10 per cent for firms with 100–300 workers; and 30 workers for firms with more than 300 workers.
8. Strong empirical evidence that governments engage in counter-cyclical hiring (Stevenson 1992; Kraay & Van Rijckeghem 1995) lend prima facie support to this hypothesis.
9. This is different than the situation of wage leadership which may arise simply as a result of the government's relative size as an employer.

REFERENCES

- Alogoskoufis, G. S. and A. Manning (1988a): 'Unemployment Persistence', *Economic Policy* 7, p. 428–69.
- Alogoskoufis, G. S. and A. Manning (1988b): 'Wage Setting and Unemployment Persistence in Europe, Japan, and the USA', *European Economic Review* 32/2–3, pp. 69–706.
- Atkinson, A. B. and J. Micklewright (1991): 'Unemployment Compensation and Labour Market Transitions: A Critical Review', *Journal of Economic Literature* XXIX, pp. 1679–1727.
- Barro, R. J. (1990): 'Government Spending in A Simple Model of Endogenous Growth', *Journal of Political Economy* 98/5, pp. S103–S125.
- Barro, R. J. (1988): 'Output Effects of Government Purchases', *Journal of Political Economy* 89/6, pp. 1086–1121.
- Bean, C. R. (1994): 'European Unemployment: A Survey', *Journal of Economic Literature* XXXII, pp. 573–619.
- Bean, C. R., R. Layard, and S. Nickell (1986): 'The Rise in Unemployment: A Multi-Country Study', *Economica* 53/210, pp. S1–S22.
- Bertola, G. (1990): 'Job Security, Employment, and Wages', *European Economic Review*, 34/2, pp. 851–86.
- Blanchard, O. J. and P. Diamond (1989): 'The Beveridge Curve', *Brookings Papers on Economic Activity* 1, pp. 1–76.
- Bruno, M. and J. D. Sachs (1984): *Economics of Worldwide Stagflation*, Harvard University Press.
- Buchanan, J. (1977): 'Why Does Government Grow?' in: T. E. Borchering (ed.), *Budgets and Bureaucrats: The Sources of Government Growth*, Duke University Press.
- Burda, M. (Oct. 1988): 'Unemployment', *Economic Policy*, pp. 393–425.
- Calmfors, L. (1993): 'Centralization of Wage Bargaining and Macroeconomic Performance: A Survey', mimeo, Paris: OECD.
- Calmfors, L. and J. Driffil (1988): 'Bargaining Structure, Corporatism, and Macroeconomic Performance', *Economic Policy* 6:13–61.
- Corden, W. M. and R. Findlay (1975): 'Urban Unemployment, Intersectoral Capital Mobility and Development Policy', *Economica* 42, pp. 59–78.
- Courant, P.N., E. M. Gramlich, and D. L. Rubinfeld (1979): 'Public Employee Market Power and the Level of Government Spending', *American Economic Review* 69/4, pp. 806–17.
- Demekas, D. G. and Z. G. Kontolemis (1996): 'Government Employment and Wages and Labour Market Performance', mimeo, Washington, DC: International Monetary Fund.
- Demekas, D. G. (1995): 'Labour Market Institutions and Flexibility in Italy', *Labour* 9/1, pp. 3–43.

- Demekas, D. G. (1990): 'Labour Market Segmentation in a Two-Sector Model of an Open Economy', International Monetary Fund Staff Papers 37/4, pp. 849-64.
- Ehrenberg, R. D. and J. L. Schwarz (1986): 'Public-Sector Labour Markets' in: O. Ashenfelter and R. Layard (eds.), *Handbook of Labour Economics*, Vol. II, North Holland.
- Freeman, R. B. (1986): 'Unionism Comes to the Public Sector', *Journal of Economic Literature* 24/1, pp. 41-86.
- Gelb, A., J. B. Knight, and R. H. Sabot (1991): 'Public Sector Employment, Rent Seeking and Economic Growth', *The Economic Journal* 101, pp. 1186-99.
- Heylen, F. (1993): 'Labour Market Structures, Labour Market Policy, and Wage Formation in the OECD', *Labour* 7/2, pp. 25-51.
- Jackman, R., C. Pissarides, and S. Savouri (1990): 'Labour Market Policies and Unemployment in the OECD', *Economic Policy* 11, pp. 449-90.
- Jecchinis, C. (1994): 'Recent Developments in Greek Industrial Relations: Statutory and Attitudinal Changes Towards Participation and Co-operation', *Labour* 8/3, pp. 547-66.
- Kraay, A. and C. Van Rijckeghem (1995): 'Employment and Wages in the Public Sector - A Cross-Country Study', Washington, DC: International Monetary Fund Working Paper 95/70.
- Layard, R., S. Nickell, and R. Jackman (1991): *Unemployment: Macroeconomic Performance and the Labour Market*, Oxford: Oxford University Press.
- Lazear, E. P. (1990): 'Job Security Provisions and Employment', *Quarterly Journal of Economics* 105/3: pp. 699-726.
- McCallum, J. (1983): 'Inflation and Social Consensus in the Seventies', *Economic Journal* 93, pp. 784-805.
- Mincer, J. (1976): 'Unemployment Effects of Minimum Wages', *Journal of Political Economy* 84, pp. 587-5104.
- Nickell, S. (1990): 'Unemployment: A Survey', *Economic Journal* 100, pp. 391-439.
- Niskanen, W. A. (1971): *Bureaucracy and Representative Government*, Aldine-Atherton Press.
- ECD (various issues): *Employment Outlook*, Paris: OECD.
- Pissarides, C. A. (1992): 'Loss of Skill During Unemployment and the Persistence of Employment Shocks', *Quarterly Journal of Economics* 107/4, pp. 1371-91.
- Pissarides, C. A. (1985): 'Short-Run Equilibrium Dynamics of Unemployment, Vacancies, and Real Wages', *American Economic Review* 75, pp. 676-90.
- Ramaswamy, R. and R. Rowthorn (1993): 'Centralized Bargaining, Efficiency Wages and Flexibility', Washington DC: International Monetary Fund Working Paper 93/25.
- Stevenson, G. (1992): 'How Public Sector Pay and Employment Policies Affect Labour Markets', Washington DC: World Bank Policy Research Working Paper WPS 944.