Part Two

KEY ISSUES FOR LABOUR MARKET AND SOCIAL POLICIES

Chapter 3

LONG-TERM UNEMPLOYMENT: SELECTED CAUSES AND REMEDIES

A. INTRODUCTION

One of the most disturbing features of labour market performance in the OECD countries over the past decade has been the seemingly marked rise in long-term unemployment (defined as people out of work continuously for one year and over). Despite rapid growth during the second half of the 1980s, long-term unemployment rates have remained well above the already high levels recorded at the end of the 1970s. Moreover, during the recent expansionary phase, the proportion of total unemployment accounted for by people with prolonged unemployment spells decreased only slightly in the majority of OECD countries, while it rose in some (Greece, Ireland and Italy). **A** particularly worrisome development is that even Nordic countries, long immune from major labour market problems, are now facing imbalances of some size. With the impact of the recession still to be felt in most OECD economies, long-term unemployment seems to be on a rise, both in absolute terms and as a proportion of total unemployment.

There are several reasons to be concerned about these trends from economic and social viewpoints. It is often argued that human capital depreciates as unemployment duration increases [see Pissarides (1992)]; also the chances of finding a job decline as unemployment lengthens. In this context, it is important to understand the forces shaping the structure of unemployment duration and its dynamics. Moreover, there is no absolute correlation across countries between the level of aggregate unemployment and its duration. Countries with very low unemployment do show low long-term unemployment rates and incidences, and the reverse is also true. However, as noted in the 1992 ***Employment Outlook,*** the duration structure diverges substantially between countries with similar "average" aggregate unemployment rates. Also, the recent expansionary phase was accompanied by different patterns in the duration and level of unemployment. Therefore, aggregate unemployment and long-term unemployment are not necessarily the two faces of the same coin.

The main aim of this chapter is to analyse how the long-term unemployed are marginalised in the labour market. It examines the effects of long-term unemployment on wage formation; a weak response of wages will indicate a weak capacity of market forces to absorb long-term unemployment. The chapter also analyses the relationship between employment protection legislation and unemployment benefits on the incidence of long-term unemployment. The role of labour market policies (both passive and active) is also addressed, with particular emphasis on their influence on job-search.

The chapter begins with a brief overview of long-term unemployment in OECD countries (Section B). Section C analyses the consequences of long-term unemployment on wage formation. Section D reviews a number of possible causes of long-term unemployment, including the role of job security provisions and the unemployment benefits system. The section also touches on the results of several studies of one of the social consequences of long-term unemployment, namely on mental health. In Section E, some selected remedies to the problem are reviewed, notably the extension of temporary work contracts and the intensification of training and other active labour market programmes. The main findings and conclusions of the chapter are summarised in Section **F.**

Throughout the chapter, the ***race*** of long-term unemployment is defined as the number of long-term unemployed as a percentage of the labour force, whereas its ***incidence*** is defined as the number of long-term unemployed as a percentage of the total unemployed.

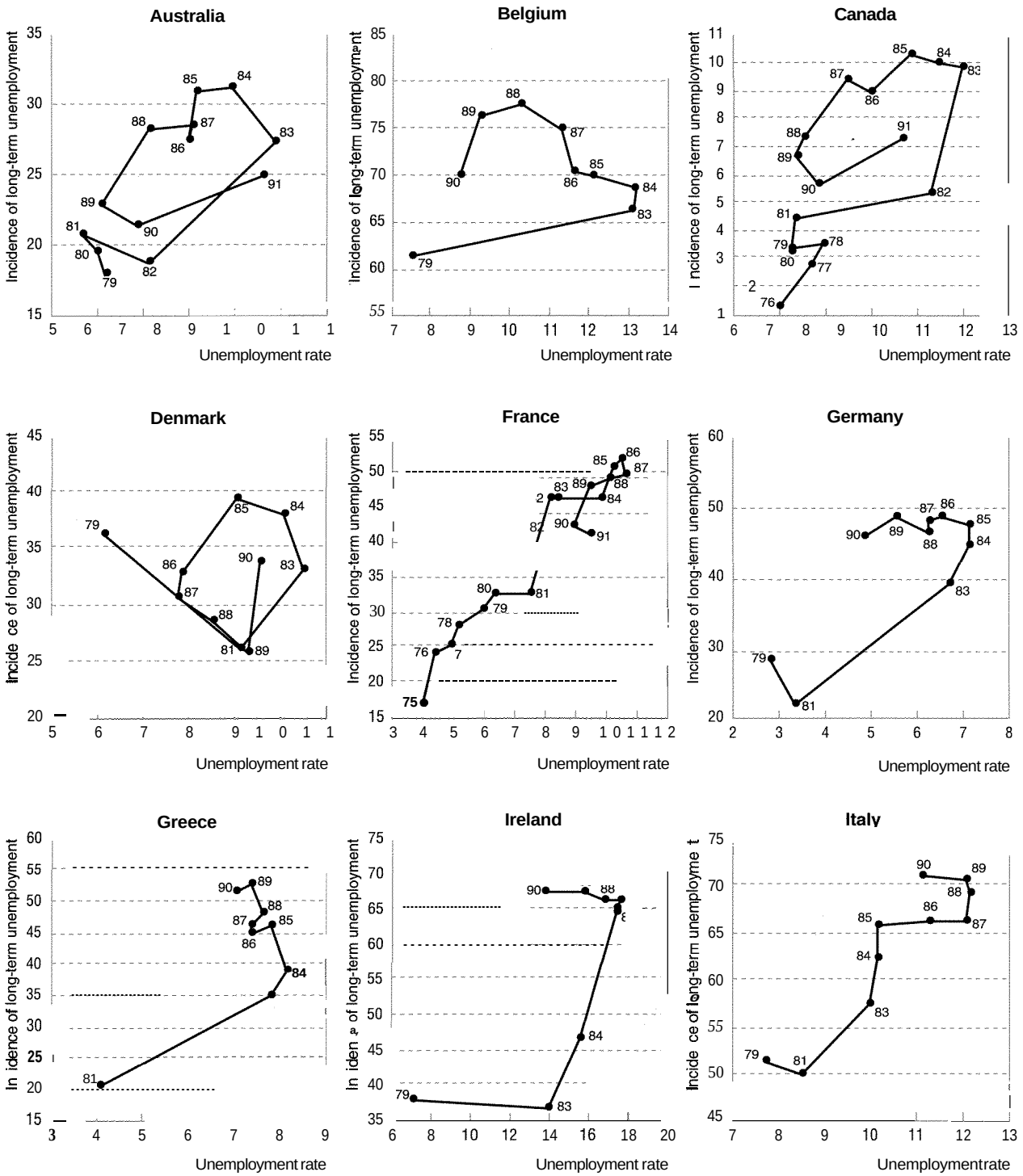
B. TRENDS IN LONG-TERM UNEMPLOYMENT

The first issue of the ***Employment Outlook*** [OECD (1983)] noted the seriousness of the long-term unemployment problem in Member countries. At that time, the number of individuals unemployed for longer than one year was roughly seven million in seventeen OECD countries.' By 1989, the number slightly exceeded seven million, although total unemployment figures had fallen; thus, the proportion **of** long-term unemployed in the total unemployed (or incidence) rose from about 27 per cent to about 32 per cent. This took place against a background of relatively strong economic

Chart 3.1

Incidence of long-term unemployment[a] and unemployment rate

(Percentages)

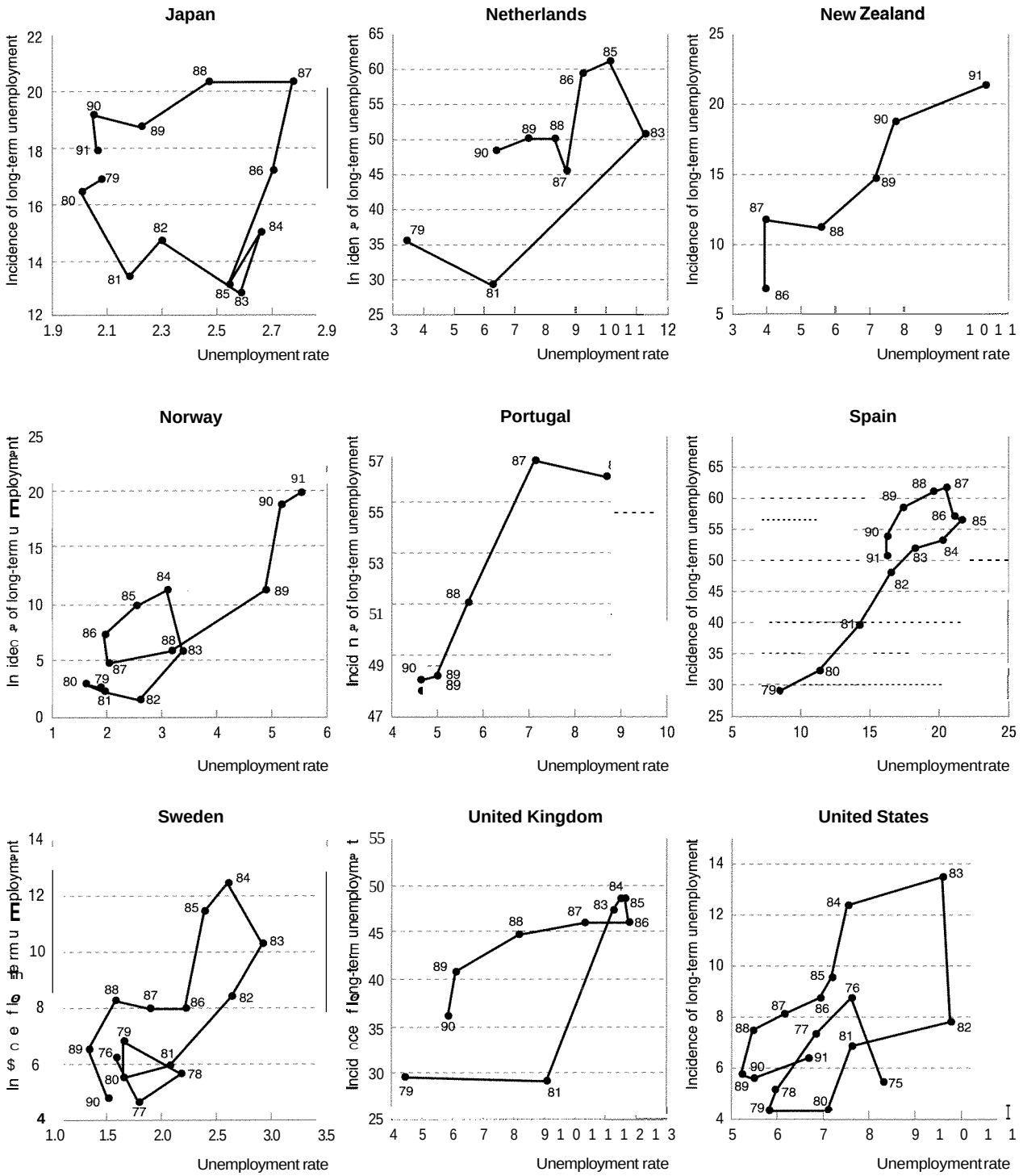


a) **Persons unemployed** 12 **months and over.**
Sources: *OECD Employment Outlook,* 1992, **Table N** of **Statistical Annex; and Economic** *Outlook,* No. 52, **December** 1992.

Chart **3.1** (Cont.)

Incidence of long-term unemployment[a] and unemployment rate

(Percentages)



a) s unemployed 12 months and over.

Sources: OECD Employment Outlook, 1992, Table N of Statistical Annex; and *Employment Outlook*, No 5, December 1992

growth in the latter part of the decade and increased policy focus on reducing the number of long-term unemployed. At the present time, with increases in unemployment occurring in most OECD countries, long-term unemployment may be set to rise to even higher levels if past patterns continue. This section therefore examines what has happened in Member countries since the late 1970s, beginning with a number of issues related to the measurement of long-term unemployment.

1. Factors affecting measurement

In comparing the number of long-term unemployed in OECD countries, a number of factors are important:

- Long-term unemployment is currently defined as unemployment lasting one year or longer, but the definition has evolved. In 1968, the OECD considered unemployment lasting longer than **6** months as "long-term". If this definition were still used, the ranking of countries by highest incidence would differ – and, of course, the figures would be much higher (see Statistical Annex Table P).[2]
- In some countries, active labour market programmes prevent long-term unemployment. When one year or a given period is reached, people are placed in training or subsidised work.' Countries also differ in the extent to which *a)* active labour market policies are in force, *b)* they are targeted to long-term unemployment, and c) they are effective.
- Some individuals who *may* share similar characteristics with the long-term unemployed are not counted as such because they have left the labour force; discouraged workers, many of whom are women, are the most common example.[4] Many of these individuals re-enter the labour force into unemployment, so in *some* cases their total spell of non-employment can be considered long-term unemployment, even though it is not registered as such.

Thus, there are a number of factors affecting comparisons of long-term unemployed, both between countries and over time.

2. Recent trends

In two previous issues of the *Employment Outlook* [OECD (1983 and 1987)], it was noted that long-term unemployment has been more than a passing phenomenon. According to labour force and registration data for the 1970s, the incidence of long-term unemployment in some European countries was already at levels higher than ever experienced in North America [OECD (1983)]. Since then, the proportion of long-term unemployed has risen in most OECD countries, as shown in Chart 3.1 which compares movement in the unemployment rate to movement in the incidence of long-term unemployment. Changes in incidence varied in each country, but even North America and Japan were not immune from the general rise – although long-term unemployment is largely viewed as a European problem.

The last time a complete chapter in the ***Employment Outlook*** was devoted to long-term unemployment was in 1987. Since then, the following trends have emerged.

First, long-term unemployment has worsened (Tables 3.1 to 3.3). In 1990 (or 1989, depending on data availability), its incidence was highest in the EC countries – about 40 per cent or more – and generally lowest in North America and the Scandinavian countries (except Norway) – under 10 per cent. Japan, Australia, New Zealand and Norway were in the middle range at about 20 per cent, with the incidence slightly higher in Denmark. Table 3.2 shows that the long-term unemployed make up a large share of the labour force in countries with a high incidence, particularly in Belgium, Ireland, Italy and Spain. Indeed, their long-term unemployment rates – ranging from **6** to over 9 per cent in 1990 – were comparable to the total unemployment rates in many OECD countries. Most other European countries fell in the 2 to 4 per cent range. In addition, data for Europe [Commission of the European Communities (1992)] indicate that in Spain, about **6** per cent of the labour force consisted of individuals unemployed for over two years in 1990. In Ireland, Italy and Belgium some 4 per cent of the labour force fell into this category. This signifies that long-term unemployment is not only an economic problem, but also in some countries an important social problem.

Second, there does not appear to be any clear relationship between the unemployment rate and the incidence or rate of long-term unemployment across countries. For example, Belgium and Italy had a similar incidence of long-term unemployment in 1990, but Belgium's unemployment rate was about 2 percentage points lower. In contrast, Belgium and Denmark had similar unemployment rates, but the incidence in the latter was about 35 percentage points lower.

Third, in many countries, the relationship between long-term unemployment and total unemployment has shifted over time, with the incidence of the former rising for a given unemployment rate. For example, during the economic recovery in the latter part of the 1980s, when the unemployment rate dropped in most countries, the decline in incidence (where it occurred) did not offset the increase in incidence over the period 1981-85. Indeed, only two countries – Denmark and Sweden – did not have an increase in the incidence of long-term unemployment over the period 1979 to 1989-90. European countries in particular appear to exhibit persistence in long-term unemployment. Once long-term unemployment incidence increases, there appears to be little impetus for it to fall back to the level of its previous cyclical peak.

	1979		1985		1989		1990		1991	
	Unemployment rate	LTU incidence	Unemployment rate	LTU incidence	Unemployment rate	LTU incidence	Unemployment rate	LTU incidence	Unemployment rate	LTU incidence
Australia	6.2	18.1	8.2	30.9	6.1	23.0	6.9	21.6	9.6	24.9
Belgium	7.5	61.5	12.3	69.8	9.3	76.3	8.7	69.9	9.3	
Canada	7.4	3.4	10.5	10.3	7.5	6.8	8.1	5.7	10.3	7.2
Denmark	6.2	36.2	9.0	39.3	9.3	25.9	9.5	33.7	10.4	
Finland	6.0		5.0	21.1	3.5	6.9	3.5		7.6	
France	6.0	30.3	10.2	46.8	9.4	43.9	8.9	38.3	9.4	37.3
Germany	2.9	28.7	7.1	47.9	5.6	49.0	4.9	46.3	4.3	
Greece	1.9		7.8	46.2	7.4	52.4	7.0	51.7	8.2	
Ireland	7.1	38.2	17.4	64.7	15.6	67.3	13.7	67.2	15.8	
Italy	7.8	51.2	10.2	65.8	12.1	70.4	11.1	71.1	11.0	
Japan	2.1	16.8	2.6	13.1	2.3	18.7	2.1	19.1	2.1	17.9
Netherlands	3.5	35.9	10.0	60.7	7.4	49.9	6.4	48.4	5.9	
New Zealand	1.9		3.6		7.2	14.7	7.8	18.6	10.3	21.2
Norway	1.9	2.9	2.6	10.2	4.9	11.6	5.2	19.2	5.5	20.2
Portugal	8.2		8.7		5.0	48.3	4.7	48.1	4.1	
Spain	8.6	29.5	21.5	56.7	17.3	58.5	16.3	54.0	16.3	51.1
Sweden	1.7	6.8	2.4	11.4	1.4	6.5	1.5	4.8	2.7	
United Kingdom	4.5	29.5	11.6	48.6	6.2	40.8	5.9	36.1	8.3	
United States	5.8	4.2	7.2	9.5	5.3	5.7	5.5	5.6	6.7	6.3

.. Data not available.

b

	1979		1985		1989		1990		1991	
	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number
Australia	1.1	68	2.5	177	1.4	108	1.5	127	2.4	201
Belgium	4.6	165	8.6	306	7.1	242	6.1	186		
Canada	0.2	28	1.1	132	0.5	67	0.5	62	0.7	101
Denmark	2.2	54	3.6	66	2.4	49	3.2	68		
Finland			1.1	23	0.2	5				
France	1.8	371	4.8	1 030	4.1	878	3.4	794	3.5	757
Germany	0.8	182	3.4	884	2.7	757	2.3	632		
Greece			3.6	135	3.9	152	3.6	139	..	..
Ireland	2.7	34	11.2	144	10.5	135	9.2	117		
Italy	4.0	532	6.7	1 367	8.5	1 648	7.9	1 485		
Japan	0.4	230	0.3	210	0.4	280	0.4	270	0.4	240
Netherlands	1.3	57	6.1	329	3.7	260	3.1	222		
New Zealand					1.1	15	1.4	19	2.2	31
Norway	0.1	1	0.3	5	0.6	11	1.0	19	1.1	21
Portugal					2.4	114	2.2	102		
Spain	2.6	330	12.2	1 673	10.1	1 479	8.8	1 299	8.3	1 243
Sweden	0.1	6	0.3	14	0.1	4	0.1	3		
United Kingdom	1.3	263	5.6	1 270	2.5	809	2.1	675		
United States	0.2	259	0.7	786	0.3	374	0.3	385	0.4	535

.. Data not available.

a) The long-term unemployment rate **is** calculated **as** the number of long-term unemployed (12 months and over) as a percentage of the labour force.

b) The number **of** long-term unemployed is in thousand\.

Sources: See Table P **of** the Statistical Annex; OECD, *Labour Force Statistics.*

		Inflows (per cent of source population)[d]	Outflows	Flows into unemployment (per cent of total inflows)					Long-term unemployed (stock) (per cent of total iong-term unemployed)				
				15-24	25-44	45+	Men	Women	15-24	25-44	45+	Men	Women
Australia	1979	0.9	21.8	50	42	8	47	53	47	30	23	56	**44**
	1989	1.0	22.4	48	41	11	47	53	33	39	27	67	33
	1991	1.0	11.1	43	42	15	54	46	29	**44**	27	65	35
Belgium	1979	0.2					43	57				32	68
	1989	0.1	3.9	43	54	3	55	45	23	59	18	38	62
	1990	0.3	5.1	50	50		36	***64***	17	62	20	36	***64***
Canada	1979	1.8	32.8	52	34	13	52	48	32	46	21	***64***	36
	1989	1.9	31.8	40	46	14	52	48	9	52	39	***64***	36
	1991	2.3	23.8	37	48	15	55	45	14	53	33	62	38
Denmark	1979	0.8		..			47	53	..			35	65
	1989	0.9	8.0	50	34	17	48	52	15	50	36	43	57
	1990	0.7	8.3	50	38	13	56	**44**	10	59	31	**44**	56
Finland	1979										..		
	1989	1.2		34	**44**	22	55	45	0	100	..	50	50
	1990	..	..	..	..	..	..		..	..	..	..	..
France	1979	0.3	6.1	53	38	9	49	51	28	46	26	37	63
	1989	0.4	6.7	36	57	7	50	50	15	63	22	40	60
	1991	0.3	5.5	35	58	6	52	48	13	63	23	40	60
Germany	1979	0.2		..			54	52				50	50
	1989	0.3	7.6	33	53	14	48	52	12	42	46	51	49
	1990	0.2	8.0	27	57	16	48	52	8	43	48	51	49
Greece	1979												
	1989	0.3	6.1	57	36	7	60	40	62	30	**8**	31	69
	1990	0.2	5.6	***64***	27	9	55	45	43	49	**8**	31	69
Ireland	1979	0.7					52	48				78	22
	1989	0.3	3.8	42	40	17	46	54	29	50	22	71	29
	1990	0.3	4.2	60	40		67	33	24	54	22	70	30
Italy	1979	0.3					50	50				50	50
	1989	0.2	2.8	48	42	11	43	57	59	37	5	40	60
	1990	0.2	3.6	38	51	11	47	53	52	43	5	39	61
Japan	1979	0.3	19.5	42	46	13	58	42	9	52	39	70	30
	1989	0.4	22.0	41	38	22	50	50	11	32	57	71	29
	1991	0.3	23.6	56	30	15	56	**44**	13	42	46	75	25
Netherlands	1979	0.3		..			67	33	..	..		70	30
	1989	0.2	4.8	58	37	5	42	58	17	59	23	54	46
	1990	0.1	5.6	53	37	11	41	59	13	***64***	23	50	50
New Zealand	1979			..									
	1989	1.0	15.0	49	39	12	47	53	33	55	12	70	30
	1991	1.3	11.4	50	41	10	50	50	32	49	19	66	34
Norway	1979	0.6	40.9	58	25	17	46	54					
	1989	0.9	19.8	43	43	13	59	41	30	50	20	***64***	36
	1991	0.9	20.6	46	42	11	61	39	19	57	25	56	**44**
Portugal	1979			..				..					
	1989	0.0	2.6	32	58	11	68	32	46	41	13	35	65
	1990	0.1	3.1	29	57	14	38	63	38	47	15	35	65
Spain	1979	0.3	3.7	47	31	22	84	16	57	26	17	60	40
	1989	0.2	2.2	43	39	17	61	39	40	39	22	43	57
	1991	0.2	2.0	38	45	15	61	39	34	38	28	40	**60**
Sweden	1979	0.5	35.6	53	35	12	48	52	12	28	60	50	50
	1989	0.4	35.7	50	40	10	47	53	13	26	62	59	41
	1990	0.4	30.0	49	37	14	48	52	9	24	67	61	39

Table 3.3. Monthly flows into and out of unemployment, and long-term unemployment [a, b, c] *(Cont.)*

		Inflows (per cent of source population) [d]	Outflows	Flows into unemployment (per cent of total inflows)					Long-term unemployed (stock) (per cent of total long-term unemployed)				
				15-24	25-44	45+	Men	Women	15-24	25-44	45+	Men	Women
United Kingdom	1979	0.6				..	58	42			..	15	25
	1989	0.6	13.7	47	31	17	46	54	22	39	39	71	29
	1990	0.6	13.4	43	43	15	48	52	18	43	39	74	26
United States	1979	2.1	41.4	55	32	13	47	53	28	39	33	60	40
	1989	2.0	48.2	45	42	13	50	50	16	55	29	70	30
	1991	2.1	37.3	42	44	14	52	48	14	53	33	68	32

.. Data not available.

a) Inflows refer to those unemployed for less than one month (two months in the case of Finland).

b) The number of outflows is estimated as the difference between the average monthly level of inflows and the monthly average change in unemployment over one year, that is:

$$\text{outflows} = \frac{I(t) + I(t-1)}{2} - \frac{C(t) - C(t-1)}{12}$$

where: $I(t)$ and $I(t-1)$ are the monthly inflows and $C(t)$ and $C(t-1)$ the level of unemployment for years t and $t-1$ respectively.

For Canada, Italy, Norway, Spain, Sweden and the United States, all quantities for the long-term unemployed are annual averages of monthly or quarterly readings. For other countries, both inflows and unemployment are based on single readings taken one year apart. The years used in estimation were 1979/80 (1979/81 for Denmark, Germany, Italy and the United Kingdom), 1988/89 and 1990/91 (1989/90 for Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Sweden and the United Kingdom).

c) Long-term unemployment refers to those unemployed for one year and over.

d) Working-age population (15-64) less the unemployed for inflows; total unemployment for outflows.

Sources: See Table **P** of the Statistical Annex: OECD, ***Labour Force*** *Statistics.*

Fourth, long-term unemployment does not fall immediately once the unemployment rate falls, but tends to rise for a year or two and then begins to fall slowly. This pattern is illustrated in Chart 3.1. These lags can be explained through labour market dynamics and will be a function of the speed of recovery, the degree of structural change taking place in the economy, labour market programmes to assist the unemployed, the extent to which the short-term unemployed are employed first, and so on [OECD (1992*b,c*)].[5] However, even with labour market programmes there is a wide range of experiences. The two countries that did not have an increase in incidence over the 1980s – Denmark and Sweden – had among the largest numbers of participants in labour market programmes, which may have helped[6] [OECD (1992*b*)]; however, other countries with relatively high numbers of participants did not have the same success – *e.g.* Ireland and Spain – which suggests that other factors such as the precise nature of the programmes and the level of unemployment are important.

Fifth, the rate of flows into and out of unemployment differs widely among OECD countries, particularly with respect to Europe and North America; flows in the latter are about ten times the size of those in the former (Table 3.3). Data on inflows and outflows reveal that in many countries, increased duration resulted from a relative decline in outflows. Relatively low and falling outflows may be an indication of employers' reluctance to hire, due to the high cost of dismissal among other reasons. This last issue will be examined in Section D of this chapter.

3. Who are the long-term unemployed?

Table 3.3 also shows the composition of long-term unemployment. In 1990/91, in ten of the nineteen countries, the male share was greater than that for women. It also increased over the 1980s, although in Italy, the Netherlands and Spain there was a sizeable shift away for males. However, the shares of men and women in long-term unemployment can be contrasted with their respective labour force shares (data not presented). In many countries, women are over-represented in long-term unemployment compared to their labour force shares. Data for 1989 reveal that in about half the countries – predominantly those where the incidence of long-term unemployment was relatively high – women tended to constitute a much larger proportion of long-term unemployment than their labour force share. Therefore, in many of these countries – Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Portugal and Spain – long-term unemployment rates were higher for women than men, with the gap ranging from about 2 per cent in Denmark to over **16** per cent in Spain.

Educational attainment[b]	Less than one year		One year or more	
Australia[c]	**1980**	**1990**	**1980**	**1990**
Level **A**	57.7	47.8	69.4	59.0
Level B	11.9	14.4	11.3	9.5
Level C	22.9	9.8	19.4	8.6
Level D[d]		16.6		16.8
Level E		4.8		2.8
Level X[e]	7.5	6.7	0.0	3.3
Total	100.0	100.0	100.0	100.0
Finland[f]	**1981**	**1990**	**1981**	**1990**
Level **A**	53.5	40.5	76.5	69.7
Level B	14.1	20.0	7.9	8.4
Level C	29.3	35.9	14.1	18.9
Level D	1.6	1.5	0.6	1.3
Level E	1.5	2.0	0.8	1.6
Level X	0.0	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0
Japan[g]	**1987**	**1992**	**1987**	**1992**
Level **A**	37.0	22.1	47.6	40.0
Level B	50.0	54.5	42.9	50.0
Level D	7.4	11.7	4.8	0.0
Level E	4.6	10.4	4.8	10.0
Level X	0.9	1.3		
Total	100.0	100.0	100.0	100.0
New Zealand[h]	**1987**	**1991**	**1987**	**1991**
Level **A**	70.4	57.3	80.1	71.4
Level B	18.3	23.8	12.9	10.9
Level C	4.0	9.4	2.7	12.7
Level E	0.1	0.2	0.1	0.1
Level X	7.2	9.3	4.2	4.9
Total	100.0	100.0	100.0	100.0
Norway[i]	**1980**	**1990**	**1980**	**1990**
Level **A**	43.8	27.6	40.9	36.7
Level B	50.2	62.1	34.0	55.3
Level E	5.1	9.1	25.0	6.9
Level X	1.0	1.2	0.0	1.1
Total	100.0	100.0	100.0	100.0
Spain[j]		**1990**		**1990**
Level **A**	..	46.3	..	39.8
Level B	..	46.8	..	51.0
Levels D + E	..	6.9	..	9.1
Total		100.0		100.0
Turkey[k]	**1988**	**1992**	**1988**	**1992**
Level **A**	34.1	25.2	35.1	27.2
Level B	51.0	59.7	56.9	65.8
Level D	14.9	15.1	8.0	7.0
Total	100.0	100.0	100.0	100.0
United States'	**1980**	**1988**	**1980**	**1988**
Level **A**	42.3	36.8	36.1	32.2
Level B	39.1	42.2	44.1	46.6
Level D	13.1	14.0	12.9	11.4
Level E	5.5	7.0	6.9	9.7
Total	100.0	100.0	100.0	100.0

.. Data not available

Table 3.4. **Structure of unemployment by level of educational attainment** *(Cont.)*

Per cent of short- and long-term unemployment"

a) Total annual average number of unemployed are used to calculate rates.
b) Precise attainment definitions are available in OECD, ***Employment Outlook,*** 1989, Annex 2.C. General classifications are defined as the following:
Level A: completed less than upper secondary education.
Level B: completed upper secondary education.
Level C: vocational, non-academic educational training.
Level D: completed some post-secondary education, hut not a university degree.
Level E completed at least one university degree.
Level X unknown.
c) Australia: monthly data from July surveys; long-term unemployment in 1980 **is** defined as 39 weeks or more.
d) Australia: no breakdown available for Levels D and E in 1980.
e) Australia: Data include those who did not attend school and those whose attainment could not he determined.
f) Finland monthly data from November surveys. Classifications for Finland have been expanded upon since 1989 and are defined as the following:
Level ***A*** primary education, less than 9 years.
Level B: lower secondary education, about 9 years.
Level C: upper secondary education, about 10-12 years.
Level D: lowest level of tertiary education, ahout 13-14 years.
Level E lower and higher degrees of tertiary education, about 15-16 years.
Level F doctorate or equivalent level of tertiary education.
Level X: level of education unknown.
g) Japan: monthly data from February surveys; level X refers to students.
h) New Zealand second quarter data. Classifications for New Zealand are defined as the following:
Level A: no formal school qualifications nor a school certificate.
Level B: higher school qualifications or equivalent.
Level C: tertiary non-university qualifications.
Level E university qualifications.
Level X not specified or other.
Figures in the "less than one year" column refer to those unemployed for less than six months.
i) Norway: level B **is** 10-12 years, level X is unspecified educational attainment.
j) Spain: data from second quarter 1990.
k) Turkey: monthly data from October surveys. Classifications for Turkey are defined as the following:
Level ***A*** 12-14 age group, vocational junior high school included.
Level B: 15-17 age group, vocational high school included.
Level D: Other higher educational institutions.
l) United States: monthly data from March surveys; long-term unemployment defined as 27 weeks and over.

Sources: ***Australia:*** Australian Bureau of Statistics, Labour Force Survey (unpublished data).
Finland; Employment Service Statistics, Statistics Finland.
Japan: *Report* ***on the Special Survey of the Labour Force Survey,*** Statistics Bureau, Management and Coordination Agency.
New Zealand: OECD, ***Economic Surveys*** 1993, Table 17.
Norway: Central Bureau of Statistics.
Spain: Labour Force Survey, Instituto Nacional de Estadística.
Turkey; State Institute of Statistics, Household Labour Force Surveys, October.
United States: ***Current Population Survey,*** U.S. Department of Labor, Bureau of Labor Statistics.
OECD, ***Employment Outlook,*** 1989.

Long-term unemployment is concentrated among prime-age (25-44) workers in all countries except those in Southern Europe – Greece, Italy, Portugal and Spain – where the largest shares belong to youths (aged 15-24), and in Japan and Sweden, where the largest shares belong to older workers (aged 45-64) (based on 1989 data). By gender, prime-age males make up a larger share of long-term unemployed than they do in total unemployment.

Between 1979 and 1989, most countries had an increase in the share of prime-age workers in total long-term unemployment, with corresponding declines in the youth group; however, increases in the share of older workers also occurred in Australia, Canada, Germany, Japan and Spain – despite the fact that this group had a number of other options for leaving the labour force, including early retirement schemes, increased pension availability and changes in invalidity pensions [OECD (1992*b*)] – all of which may affect the cross-country comparison of this group.'

4. Educational attainment of the long-term unemployed

There is evidence to suggest that the long-term unemployed tend to have both relatively low educational attainment and insufficient skills [OECD (1988)]. This, however, applies to the unemployed in general, at least with respect to educational attainment [OECD (1989)]. Therefore, what is interesting to examine is how the educational attainment of the long-term unemployed differs from individuals unemployed less than one year. Ideally, a comparison with attainment levels of the labour force would be useful, but comparable data were not available.

Table 3.4 provides data on the educational attainment of the unemployed broken down by short and long duration for eight OECD countries. These data support the view that the long-term unemployed have relatively low educational attainment, similar to that of persons unemployed less than one year (short-term unemployed). Moreover, in five of the eight countries – Australia, Finland, Japan, New Zealand and Turkey – relatively higher shares of long-term unemployed persons had only a secondary school education or less – levels A and B – than the short-term unemployed, although the magnitudes differ widely by country. Thus, in these countries, the data are consistent with the argument that relatively lower educational attainment – particularly for those who have not completed upper secondary education – with respect to the pool of unemployed may lead to a drift into long-term unemployment. However, before broader conclusions can be reached, a larger number of countries would have to be examined by age group over a longer period. The data also show that there has been a slight shift towards long-term unemployment affecting individuals with higher educational attainment. This is probably due to the correlation between age and educational attainment: older individuals tend to have lower educational attainment relative to more recent entrants, and changes in their labour force participation will affect the distribution by attainment level. Unfortunately, data are not available by age to separate the two effects.

In Australia, the long-term unemployed tend to be grouped among those with the lowest level of educational attainment – similar to other unemployed, but with a significantly higher proportion having completed less than upper secondary education – in both 1980 and 1990. The proportion for both short- and long-term unemployed at that level has fallen since 1980, which probably reflects general increases in educational attainment and the fact that labour force participation rates of older workers – who tend to have lower educational attainment relative to new entrants – have fallen over the 1980s. In Japan, data for 1992 show that the long-term unemployed also have relatively lower educational attainment. Although the short-term unemployed are spread out over all educational attainment levels, the majority of long-term unemployed have completed upper secondary education or less. The same situation exists in Finland and Turkey, where larger shares of the long-term unemployed have lower educational attainment levels than the short-term unemployed.

The situation in Spain and the United States is different from the other countries in Table 3.4. In Spain, long-term unemployment is higher among those with post-secondary education (levels D and E) than short-term unemployment. These data are available only for 1990 and probably reflect the relatively high incidence of long-term unemployment among youth. This situation is not unique to Spain. In the Netherlands, a significant minority of the long-term unemployed are also highly qualified [OECD (1992*c*)]. Twenty-five per cent of the long-term unemployed in Norway had attained higher education levels in 1980, but by 1990 most long-term unemployed were found to have completed only upper secondary education or less. In the United States, although the majority of the long-term unemployed had relatively low educational attainment – similar to other unemployed – a relatively higher proportion of long-term unemployed in both 1980 and 1990 were university graduates.

C. LONG-TERM UNEMPLOYMENT AND WAGE FORMATION

Long-term unemployment carries a number of economic consequences; among them is the impact on wages. Standard economic analysis suggests that unemployment exerts downward pressure on wages. This is a key mechanism through which unemployment is self-correcting, as lower wages stimulate the demand for labour. However, these wage moderation effects will be reduced if some unemployment is structural. A discussion of the relationship between structural unemployment and long-term unemployment will help shed light on the economic significance of the duration structure of unemployment.

If the long-term unemployed play a significant role in wage-bargaining, there is a possibility that wages will adjust downwards, stimulating job creation. In this case, long-term unemployment may be gradually absorbed. However, the long-term unemployed rarely exert downward pressure on wages. This may reflect many factors, which are discussed in detail below (notably demotivation and the loss of skills of the people concerned), as well as the strong power of incumbent workers (the insiders) in wage determination. In such a context, unemployment will show a tendency to persist.

1. Expected effects of long-term unemployment on wage formation

Wage advances may be explained by a variety of factors, notably inflation expectations, labour productivity gains and the gap between structural and actual unemployment. According to standard theory, in the long run (*i.e.* when inflation expectations are fulfilled), real wages grow in line with labour productivity and unemployment coincides with its structural level. In this framework, the average duration of unemployment is not a relevant factor for wage formation. However, if long-term unemployment is mainly due to structural factors, it will have little effect on wage determination. Wage pressures will be determined solely by the non-structural part of unemployment. Hence, there are grounds to believe that for a given level of aggregate unemployment, wage pressures may be lower when the incidence of long-term unemployment is higher (*i.e.* long-term unemployment is asso-

ciated with structural unemployment). There are various reasons why the long-term unemployed may exert little pressure on wages:

- Among the possible factors determining structural unemployment, a prominent role is often given to labour market rigidities such as employment protection legislation and, more generally, insiders' power [Layard and Nickell (1986)]. As discussed in more detail in the next section, insiders' power may hamper competition in the labour market. As a result, the unemployed may be marginalised, exerting little pressure on wages, and unemployment duration will tend to increase.
- Another interrelated factor is the erosion of skills associated with long unemployment spells. As a result, demand for this type of labour will be reduced.
- Job-search may be further inhibited when the unemployment benefits system unduly raises the reservation wage (as will be seen below, there may be a relationship between the maximum duration of benefits and long-term unemployment). Also, the long-term unemployed will be less motivated compared to other unemployed workers to compete for jobs, thereby weakening wage pressures. More generally, public employment services may find the long-term unemployed hard to place.
- The role of the long-term unemployed in wage formation may also be inhibited if employers screen them out.

Thus, it is possible that in countries where the incidence of long-term unemployment is more pronounced, wages will adjust less quickly to labour market imbalances. If this is the case, the equilibrating function of wages will be hampered and unemployment will last longer.

2. Estimated effects on wage formation

A number of empirical studies have found support for this line of reasoning [see Blanchard and Summers (1986)]. In OECD (1987), wage equations for six countries led to inconclusive results regarding the effect of long-term unemployment on wage formation. According to the econometric tests, it was not possible to reject the hypothesis that short-term and long-term unemployment had similar effects. However, the study also concluded that these results were difficult to interpret because of the strong collinearity between fluctuations in total unemployment and those in long-term unemployment. In a study on unemployment in the United Kingdom, Layard and Nickell (1986) find evidence that long-term unemployment exerts less downward pressure on wages than short-term unemployment. In their framework, wage advances are determined by aggregate unemployment, the incidence of long-term unemployment and other structural factors such as the replacement rate, a proxy for unions' power and a measure of external competitiveness. The authors conclude that short-term unemployment is a better measure of economic slack, while the long-term unemployed are largely marginalised from the labour market. However, Turner and Whitley (1991) cast doubts on the validity of these results because of the particular specification used in the model. Indeed, it appears that parameter estimates in these studies lead to counter-intuitive wage dynamics in response to certain changes in aggregate unemployment.[8] Another limitation of Layard and Nickell's study is that it does not provide a comparison across countries.

In order to overcome these difficulties, this study presents a cross-sectional regression analysis of wage formation. The dependent variable is the increase in real wages (RW). The explanatory variables include productivity growth (Q) and the aggregate unemployment rate (U). The regression also includes the average incidence of long-term unemployment (LTU) during the 1980s. The average was used in the absence of a long time-series. The use of this average also reduces the collinearity between movements in total unemployment and in long-term unemployment. The equation can be written as follows:

$$RW = \text{constant term} + ai.U + b.Q + c.LTU$$

where *ai* represents the semi-elasticity of real wage growth with respect to unemployment rate in country *i*; *b* is the elasticity with respect to productivity advances (measured by the growth in real GDP per employed person); and *c* is the semi-elasticity with respect to long-term unemployment incidence.

Thus, the equation allows for elasticities of wages with respect to aggregate unemployment that are different in each country. However, the elasticity with respect to long-term unemployment is constrained to be the same in all countries, reflecting the fact that only one observation of the long-term unemployment variable is available for each country. The same applies for the productivity term in the equation.[9] The main departure from earlier empirical studies such as that of Layard and Nickell is that the effects of long-term unemployment are tested in a cross-section rather than time-series analysis.

Estimation results indicate that long-term unemployment does not exert much downward pressure on wages, in contrast with short-term unemployment (see Table 3.5). The equation predicts that a rise in the incidence of long-term unemployment by 10 percentage points (with constant aggregate unemployment) is associated with an increase in real wage growth of about 0.7 percentage points per annum.[10] These results are robust: the constraint, whereby the duration semi-elasticity is less than the overall unemployment semi-elasticity, is verified for all countries."

This equation can be interpreted as a standard Phillips curve, whereby real wages fluctuate according to the difference between actual and structural unemployment.

Table 3.5. **Econometric estimates of wage effects of long-term unemployment**[a]

t-statistics in parentheses

Constant term	5.70	(8.3)
Average incidence of long-term unemployment[b]	6.98	(3.9)
Productivity growth	0.18	(3.0)
Total unemployment rate (country-specific coefficient)		
Austria	–1.16	(4.1)
Australia	–0.55	(5.2)
Belgium	–0.78	(7.7)
Canada	–0.39	(4.0)
Denmark	–0.66	(7.4)
Finland	–0.36	(2.4)
France	–0.58	(6.4)
Germany	–1.26	(8.4)
Greece	–0.62	(5.0)
Ireland	–0.39	(6.0)
Italy	–0.54	(5.8)
Japan	–1.63	(4.8)
Netherlands	–0.99	(9.3)
New Zealand	–0.93	(5.7)
Norway	–0.96	(3.4)
Portugal	–0.62	(5.4)
Spain	–0.34	(6.9)
Sweden	–1.59	(3.9)
United Kingdom	–0.54	(6.0)
United States	–0.60	(5.0)
Memorandum item:		
Adjusted R^2 (in per cent)	37.0	

a) The dependent variable is the growth in average compensation per employee minus expected inflation, measured as a weighted average of present inflation (with a weight of 0.7) and one-year lagged inflation (with a weight of **0.3).** The equation was estimated using the pooling-regression routine of **SAS.** The estimation period is 1970 to 1991. For more details on the specification of the equation, see Section C.

b) The average **is** calculated over a period starting in 1970 for France and the United States, 1976 (Canada and Sweden), 1977 (Japan and Norway), 1978 (Australia), 1986 (New Zealand and Portugal) and 1979 in the other countries, until 1990/91.

Source: OECD estimates.

Table **3.6. Effects of unemployment duration on wages and structural unemployment**[a]

	Change in long-term unemployment incidence (1990/1979)	Effect on real wage growth[b]	Level of structural unemployment explained by long-term unemployment[c]
Australia	3.6	0.25	3.2
Belgium	8.4	0.58	6.4
Canada	2.4	0.16	1.3
Denmark	–2.6	–0.18	3.4
France	8.0	0.56	5.0
Germany	17.5	1.22	2.4
Ireland	28.6	2.00	10.8
Italy	19.9	1.39	8.3
Japan	2.4	0.16	0.7
Netherlands	12.7	0.89	3.5
Norway	16.3	1.13	0.6
Spain	24.5	1.71	10.7
Sweden	–2.4	–0.16	0.4
United Kingdom	6.6	0.46	5.6
United States	1.4	0.10	0.9

a) Structural unemployment is calculated using the wage equation (see text for more details).

b) Change in average annual growth in real wages explained by the change in the incidence of long-term unemployment.

c) Level of structural unemployment explained by the average incidence of long-term unemployment (during the 1979/90 period). This is obtained by multiplying the average incidence of long-term unemployment by the ratio of the long-term unemployment coefficient to the total unemployment coefficient, as estimated in the wage equation.

Source: OECD estimates.

The latter is a function of productivity growth and the incidence of long-term unemployment.[12] Table 3.6 illustrates the importance of long-term unemployment for labour market performance. It shows that during the 1980s, the incidence of long-term unemployment increased in most OECD countries (except Denmark and Sweden). If the above evidence is accepted, the wage moderation effects of unemployment have been weakened, in turn reducing the stimulus for job creation. The results imply that the high incidence of long-term unemployment has been accompanied by a high level of structural unemployment in most EC countries, notably Spain and Ireland. Also, real wages have increased much faster than would have been the case had the rising unemployment taken the form of short-term spells. Outside the EC area, the incidence of long-term unemployment has remained broadly unchanged, which explains the relatively small effect on wages and structural unemployment. From these results it is clear that the exit rate declines when duration increases.

The wage equation results are supported by available statistics on flows out of unemployment. Data from the 1988 *Employment Outlook* (Table 2.14) show that the re-employment rate falls almost steadily as duration of unemployment increases, and in fact quickly during the second semester. Thereafter (*i.e.* over one year), it appears to follow a gentle downward trend. This peculiar pattern of re-employment probabilities suggests that the cut-off point of one year has economic significance, and lends support to the usual definition of long-term unemployed, *i.e.* "people actively seeking jobs for more than one year". The counterpart of the above result is that the probability of remaining unemployed increases with duration. Thus, about 55 per cent of the long-term unemployed are likely to be unemployed one year later – 10 percentage points more than in the case of people unemployed under one year. In contrast, the probability of dropping out of the labour force shows no particular pattern.

D. FACTORS BEHIND LONG-TERM UNEMPLOYMENT

As discussed above, long-term unemployment has followed an upward trend in most OECD countries, but this trend appears to be steeper in the European Member countries. During the second half of the 1980s, the economic recovery recorded in the OECD area was accompanied by some decline in the incidence of long-term unemployment in the majority of OECD countries (notable exceptions were Greece, Italy and Japan). It has already been noted that there is no simple association between aggregate unemployment and the incidence of long-term unemployment. International comparisons suggest that there are no simple patterns underlying the trend-rise or persistence of long-term unemployment.

This section will examine several possible factors at work. There are probably many reasons behind the emergence of long-term unemployment. Outside labour markets, demand shocks (*e.g.* associated with tightening macroeconomic policies or changes in demand patterns) will entail adjustment costs. These costs are visible in the labour market as higher unemployment. On the other hand, supply shocks such as shifts in the speed and direction of technological change and increases in oil prices will also lead to displacement and unemployment, at least in the short run. Some authors argue that demand and supply shocks may produce long-lasting effects on unemployment because of so-called hysteresis effects [Blanchard and Summers (1986)]. All OECD countries have undoubtedly been affected by such shocks.

However, judged from the difference in cross-country performance between unemployment in general and long-term unemployment in particular, there seem to be other, more fundamental factors at work which pertain to the functioning of labour markets. Indeed, the extent to which shocks translate into persistent unemployment crucially depends on the response of labour markets to those shocks.

From a labour market perspective, it is important to ask what prevents outsiders (the unemployed) from bidding for lower wages. This section begins with a review of employment protection legislation and an analysis of the extent to which it may have reinforced the power of incumbent workers to resist lower wages and higher competition from the unemployed. Indeed, the higher firing and hiring costs, the more difficult it is for an unemployed person to find a job, and so the longer the job-search. The section also examines the extent to which outsider problems associated with certain aspects of labour market policies and duration effects may have aggravated these insider effects. Other labour market regulations, such as minimum wages – though clearly important in some countries – are not discussed, primarily for lack of data for a sufficient number of countries. An attempt to quantify insider and outsider effects is carried out at the end of the section.

1. Employment security legislation and long-term unemployment

i) Overview of employment security legislation

Employment security legislation refers to the rules and regulations that protect an individual's employment within an enterprise – including those pertaining to dismissals, the focus of this section.[13] This legislation is complex and varies widely between countries and within them, for example by the type of worker and length of service. The regulations typically set out the procedures that must be followed by both employer and employee from the moment that dismissal is decided upon to the actual termination of the employee's contract. The legislation generally indicates severance pay and notice peri-

ods that must be provided to employees under various conditions upon termination of contract and, in some countries, that dismissals must be approved by the labour ministry or a works council. Thus, the precise reason for termination of a contract will generally call for a specific sequence of steps that must be followed by the employer, although these steps will vary by country.

Emerson (1988) notes that individual dismissal legislation usually distinguishes between two cases: those involving criminal acts and gross misconduct, and those based on economic conditions or redundancy. In the former, notice and severance pay do not generally apply, while in the latter they will depend on a wide variety of factors, usually based to some degree on the worker's tenure with the organisation and age. European countries typically outline the reasons under which a contract may be terminated for "just cause" and those under which an employee's contract may be terminated for summary reasons. In other countries, such as North America and those of Oceania, courts are left to decide what should constitute just cause.

In the case of an unjust dismissal, the employee can typically appeal to a tribunal or a labour or other court (depending on the country) under "unjust dismissal" procedures, or through a civil lawsuit. This would apply to a worker summarily dismissed or one given severance pay and notice – say, in the case of a redundancy – but who still felt that the dismissal was unjust. Lazear (1990) noted that proving just cause may be practically impossible in many countries. Indeed, failure to follow the established guidelines can also automatically result in unfair dismissal. For example, in some cases it is sufficient to give notice to the worker only; however, it may be stipulated that the notice be oral or written. In other cases, works councils or labour ministries must be informed and various measures must be attempted before a dismissal can take place (*e.g.* retraining or redeployment in a company) [EIRR (1989)]. Table **3.7** outlines some of the procedures that must be followed in European countries before dismissal can take place.

Most countries have legislation in place protecting certain categories of workers for which any dismissal would be unjust. These generally relate to prohibitions on

Table **3.7. Authorisation procedures for individual dismissals in 17 OECD countries**

	Written notice[a]	Written statement of reason[b]	Consultation with employee representation[c]	Administrative authorisation[d]
Austria	–	–	+	–
Belgium	+	+	–	–
Denmark[e]	–	–	–	–
Finland[f]	–	–	–	–
France[g]	+	+	–	–
Germany	–	–	+	–
Greece[h]	+	–	–	–
Ireland	–	–	–	–
Italy	+	+	–	–
Luxembourg'	+	+	+	–
Netherlands'	–	+	–	+
Norway[k]	+	–	+	–
Portugal[l]	+	+	+	–
Spain	+	+	+	–
Sweden	–	–	+	–
Turkey	–	–	–	–
United Kingdom[m]	–	+	–	–

\+ Required.
– Not required.
a) A letter of dismissal must be presented to the employee before the dismissal.
b) The written notice or a separate letter must be presented to the employee stating the reasons for dismissal.
c) The employer must consult with an employee representative.
d) Authorisation from a government labour office is required before dismissal.
e) Denmark Reason may be requested by employees with more than one year of service.
f) Finland Reasons for dismissal may be given verbally.
g) France: A letter of termination, followed by an interview and a second letter is required for all dismissals. Consultation with employee representation is required in cases of redundancy.
h) Greece: Notification to the national employment organisation is required.
i) Luxembourg: The requirement for a written statement and a consultation is applicable in companies with more than **150** employees. Notification to the labour office is required for all dismissals.
j) Netherlands: Administrative authorisation required except in special cases.
k) Norway: A written statement of reasons may be requested by the employee.
l) Portugal: Reasons for dismissal may be requested and a letter must be sent.
m) United Kingdom: Consultation required in redundancy cases. Written statement required after two years of employment.
Sources: "Termination of contract in Europe", European ***Industrial Relations Review*** (EIRR), **1989** and various issues; Turkey, national submissions; Norway, Central Statistical Office.

	Year[a]	Severance pay (months)				Notice periods (months)			
		Blue-collar		White-collar		Blue-collar		White-collar	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Austria[b]	1980	2	12	2	12	0	0.5	1.5	5
Australia[c] #		0	0	0	0	0.25	1	0.25	1
Belgium #	1978	0	0	0	0	0.25	2	3	15
Canada[d]	1971	0	1	0	1	0.25	0.25	0.25	0.25
Denmark	1978	0	0	1	3	0	0	1	6
Finland #	1984	0	0	0	0	2	6	2	6
France[e] #	1982	0	1.5	0	1.5	I	2	1	2
Germany #	1969	0	0	0	0	0.5	3	1	6
Greece[f]	1955	0.17	2.5	1	24	0	0	1	24
Iceland[g]	1979	0	0	0	0	1	3	1	3
Ireland[h]	1977	0	12	0	12	0.25	2	0.25	2
Italy[i]	1970	0	13	0	13	0	0	0	0
Japan		0	0	0	0	1	1	1	1
Luxembourg]	1989	1	12	1	12	2	6	2	6
Netherlands[k] #	1989	0	0	0	0	0.25	4	0.25	4
New Zealand		0	0	0	0	0.25	0.25	0.25	0.25
Norway #	1977	0	0	0	0	1	6	1	6
Portugal[l]	1989	1	15	1	15	2	2	2	2
Spain	1984	0.7	12	0.7	12	1	3	1	3
Switzerland	1971	2	8	2	8	1	6	1	6
Sweden[m]	1974	0	0	0	0	1	6	1	6
United Kingdom" #	1984	0	6	0	6	0.25	2	0.25	2
United States		0	0	0	0	0	0	0	0

.. Year not available.

f)

firing based on ethnic group or religion, or special protection for persons with disabilities, pregnant women, and employee or union representatives, the latter in European countries. In other countries, some categories of workers are exempt from this legislation, *e.g.* public sector workers in Italy [EIRR (1989)].

Table 3.8 outlines the legal requirements – legislated severance payments and notice period requirements (in months) – with respect to individual dismissal in the OECD countries. These are expressed in terms of the minimum and maximum severance payments/notice periods that would have to be given to either blue- or white-collar workers given their service within a firm. Where possible, minimum service requirements for regulations to apply are also listed, although most apply immediately. With respect to both maximum payments and notice periods, the years of service required vary tremendously among countries, from two in France to twenty-five in Austria; most countries fall within a range of ten to twenty years [EIRR (1989)]. These legal requirements should be viewed as a proxy for the relative "strictness" of legislation in each country, since other factors (as outlined in Table 3.7) will affect exactly how a dismissal can take place.

Four points are worth noting with respect to Table **3.8.** First, where blue- and white-collar severance

pay/notice requirements differ, white-collar termination costs are higher. Second, most countries typically specify notice periods as opposed to severance pay but both are possible within a country. In some cases, pay in lieu of notice is also available, or the amount of severance pay given is dependent on the amount of notice given. Third, Southern European countries tend to have the highest severance pay/notice requirements, in addition to imposing the most restrictions on dismissal. Finally, legal requirements tend to be much less strict outside Europe – particularly in the United States, where "employment at will" is the prevailing doctrine [Mendelsohn (1990)].

Table 3.9 outlines payments that must be given in the case of an unjust dismissal (notice does not usually apply). These payments are typically higher than severance pay and do not vary between white- and blue-collar workers. Once again, the amounts paid in Southern European countries are generally higher, although in Ireland they are also relatively high.

Collective dismissals generally entail the same severance payments and notice periods as individual dismissals outlined in the tables; however, differences exist with respect to the procedures that must be followed. In general, these procedures make the process of releasing workers more difficult and more costly; all possible measures (*e.g.* lengthened notice periods, retraining, etc.) are attempted in order to reduce the number of people displaced [EIRR (1989)].

Employment security regulation in a country may be altered both explicitly and implicitly. When the manner is explicit, rules governing dismissal are changed directly, *e.g.* in terms of reducing the amount of severance pay, reducing notice periods, removing the requirement that dismissals be approved by labour ministries, and so on. Table 3.10 outlines changes to dismissal legislation over the 1980s. The general trend in countries which had changes was to lower protection for workers, in many different ways. In some cases, the amount of severance

Table 3.9. **Legislated individual severance pay requirements for unfair dismissals in OECD countries, 1991**[a]

	Unfair dismissal			
	Blue-collar		White-collar	
	Minimum	Maximum	Minimum	Maximum
Austria[b]	*0*	*0.5*	**1.5**	*5*
Australia			..	
Belgium[c]		*6*	..	*6*
Canada			..	
Denmark		9.75		9.75
Finland	3	20	3	20
France[d]	6		6	
Germany[e]	1	18	1	18
Greece[f]		48	..	48
Ireland		24	..	24
Italy	4	14	4	14
Japan			..	
Luxembourg			..	
Netherlands	3		3	
New Zealand	..		..	
Norway[g]	..		..	
Portugal[h]	1	15	1	15
Spain[i]	0	42	0	42
Switzerland	..	***6***	..	***6***
Sweden	16	48	16	48
United Kingdom[j]	..	6	..	6
United States[k]	0	0	0	0

.. Data not available.

a) Numbers are expressed in months of required pay commensurate with previous salary level.

b) Austria: Payments equal to notice periods in summary dismissal cases.

c) Belgium: Award for white-collar worker is negotiable, but assumed here to be equal to that of a blue-collar worker.

d) France: Award equals previous six months' pay in addition to unemployment benefits paid by the State to workers with more than two years of service in companies with more than eleven employees.

e) Germany: With a minimum of six months' service and within a company of more than five employees.

f) Greece: Severance is paid twice and in addition, lost wages are due from the time of the dismissal to the court ruling.

g) Norway: Payments based on court decisions.

h) Portugal: Assumed fifteen years of service, one months' wages per year of service.

i) Spain: Minima and maxima apply to dismissal **for** disciplinary reasons. With objective dismissal the minimum is 0.7 and the maximum twelve months' pay.

j) United Kingdom: Same formula as for redundancy; see Table **3.8.**

k) United States: Payments based on court decisions.

Source: See Table **3.8.**

Table 3.10. **Main changes in legislation pertaining to dismissal over the 1980s**

Austria	In 1980, severance pay for blue- and white-collar workers was set out as described in Table 3.8
Belgium	In 1985, Belgium increased the salary thresholds from BF250 000 to BF650 000 a year, above which additional notice periods of a minimum of 3 months' notice for each block of 5 years' service must be given. Probationary periods may be extended from 6 to 12 months if salary is above BF780 000 – formerly BF300 000. The impact of the first item was to exclude about 40 per cent of white-collar workers from additional notice periods [EIRR (1985)].
Finland	In 1988, the Employment Contracts Act was amended to allow employers to dismiss workers for economic reasons (and only if the worker could not be retrained for another position).
France	In 1986, legislation set out that any employee to be dismissed had to be informed in writing of the reasons for termination and called for an interview. The law also abolished prior authorisation of the Ministry of Labour for collective dismissals. Legislation in 1989 forced companies to prove cause for dismissal with benefit of the doubt going to the employee.
Iceland	In 1985, individuals in the fishing fleet were to receive a minimum of 7 days' notice; individuals in the merchant fleet one month's notice, and officers three months' notice.
Italy	In 1986, Law 604 laid out the concept of "justified motive" that allowed firms with over 35 employees to dismiss workers individually because of basically economic reasons which had not been allowed prior to this law. In 1990, unfair dismissal legislation was changed to include firms with fewer than 16 people. Previously it had applied to firms with more than 15 employees. No employee can be dismissed without just cause which the employer must prove. In addition, coverage was extended to part-time workers and those on recruitment and training contracts, and managers as well. Payments for unjust dismissal are up to 15 months' wages for firms with more than 16 employees, and up to 6 months' wages (minimum 2.5) for firms with fewer than 16 employees.
Luxembourg	In 1989, new legislation was passed to cover termination of contract for both blue- and white-collar workers. The notice periods range from between 2 to 6 months' depending on service, and severance from 0 to 3 months' salary. In firms with fewer than 20 people, employers can opt to give extended notice of 5 to 18 months in lieu of severance pay.
Portugal	In 1989, legislation was passed that allowed the dismissal of workers for non-disciplinary reasons. Previously, dismissal could only take place for 13 specific reasons that did not include the above. In the case of unjust dismissal, the employer has to pay wages less what may have been earned elsewhere. Also, collective dismissals no longer need labour market authorities' approval. In 1991, amendments were made to the legislation such that termination of contract could also take place if an employee was "unsuitable" for the job.
Spain	In 1980, legislation reduced the amount of compensation payable to a worker unjustifiably dismissed. **In** small firms, if a case takes longer than 60 days to settle, the government becomes responsible for payment.
United Kingdom	In 1985, the qualifying period – time spent with an employer – needed to claim unfair dismissal rose from 1 year to 2 years' continuous service. It had previously risen from 26 weeks to one year in 1979.
United States	In 1988, the United States passed the WARN Act – Worker Adjustment Retraining and Notification Act – which stated that employees affected by plant closures involving "mass layoffs" must be given 60 days' notice. There is also a move in some states to limit the "employment at will" doctrine and Montana has codified the exceptions.

Sources: *European Industrial Relations Review* (EIRR), **various issues;** ILO, *Legislative Series,* **various years; Houseman** (1990); OECD (1986*a*); *Mutual Information System on Employment Policies in Europe* (MISEP), **various issues;** *Income Data Services* (IDS), **various issues.**

pay/notice period required was lowered. In others, there was an increase in the minimum service period requirement or the threshold salary above which notice must be given. Still others made the grounds for "just cause" dismissal stricter. Two countries, France and Portugal, abolished prior approval by labour authorities before dismissal could take place.

Implicit changes generally are carried out in the context of keeping the employment security regulation framework intact for "permanent" employees while allowing other options to come into play to create greater numerical flexibility. The direction of causality is not clear. For example, on the one hand, legislation in various countries has probably been influenced by the institutional framework in place; on the other, that legislation may have influenced the development of certain institutions. These include the ability of a firm to use provisions such as lay-offs and short-time work in periods of economic fluctuation, as well as the incentive to use such provisions (*i.e.* their relationship to the benefits system, and so on). **A** well-known example is the *Cassa Integrazione Guadagni* or wage compensation fund in Italy, through which the wages of workers either laid off or on short-time work are compensated at 80 per cent of what would have been paid under full-time employment. This system allows considerable numerical flexibility for firms and maintains the employer/employee relationship.

Countries may also have implemented specific schemes to lower the coverage of selected groups of workers, typically older workers; that will allow numerical flexibility under otherwise strict dismissal legislation [OECD (1992*b*, where Chapter **5** provides a list of these programmes)]. Finally, implicit changes also include the ability to use non-standard work arrangements such as part-time and temporary work, the latter either in the form of fixed-term contracts or through temporary work agencies (see Chapter 1). For example, Spain facilitated the use of temporary contracts in 1984 by implementing legislation that increased the scope of reasons under which individuals could be hired through fixed-term contracts. In 1990, France announced two new schemes that were targeted at the long-term unemployed – the ***Contrut de retour à l'emploi*** (CRE) and the ***Contrut emploi-solidarité*** (CES). These programmes gave employers incentives to hire the long-term unemployed, such as lump sum payments and wage subsidies [MISEP (1990)]. Once again, the general trend was to enhance flexibility by implicitly lowering protection – if these options in fact were used by firms.[14]

Despite the changes to worker dismissal protection, many European labour markets seem to be characterised by a higher degree of dismissal regulation compared with other OECD countries, most notably the United States. Surveys of European firms' attitudes on regulation concerning numerical flexibility indicate that both increased flexibility and reduced severance pay/notice requirements would be preferred, with the emphasis on increased flexibility [Emerson (1988)]. Given that many European countries have relatively high unemployment rates and high incidences of long-term unemployment, a recent focus in labour market analysis has been to determine whether labour market regulation is an inhibiting factor in reducing unemployment.

ii) Employment security regulution, unemployment, and long-term unemployment

There are few studies on the impact of regulations governing employment or unemployment. Employment security regulation is linked to labour market performance through the costs of adjustment [OECD (1986*a,b*); Emerson (1988); Hamermesh (1986); and Buechtemann ***et ul.*** (1991)]. One view is that the costs of terminating a labour contract can, if relatively high, cause firms to reduce their future demand for labour, thus reducing future employment levels. Recent research, however, has stressed the dynamic nature of the employment decision when examining the effects of employment security regulation on the labour market [Bertola (1990); Bentolila and Bertola (1990)]. In these research models, what matters to the firm is the probability of having to dismiss workers at some point. This depends very much on the enterprise's view of future conditions. If it is relatively optimistic, the costs of hiring workers who one day might need to be dismissed can be heavily discounted. ***Ex post,*** with relatively high firing costs, firms will be reluctant to fire and average employment over a business cycle may be even higher than with lower firing costs.

The effects of employment security regulation on the level of unemployment are ambiguous [Flanagan (1988); Lazear (1990)]. It may reduce the flows into unemployment because of its effect on the cost of dismissing workers. However, the flows may also be spread over a longer period than in the absence of such costs, since in no country are lay-offs impossible. Flows into employment either from outside the labour force or from the existing pool of the unemployed may also be lower than they would otherwise have been.

In the insider/outsider framework of Lindbeck and Snower (1988), it is argued that insiders can take advantage of turnover costs – either directly imposed by regulation or indirectly by costs involved in employee monitoring – to increase their wages at the expense of additional employment. As shown in Table 3.8, termination costs are an important element of turnover costs in some OECD countries. If the Lindbeck and Snower argument is correct, it suggests a link to long-term unemployment. When an individual is outside employment – an "outsider" – there is a possibility that the duration of unemployment will be increased because of outsider effects. The unemployed, as outsiders, have little impact on the wage-bargaining process and face skills deterioration as the length of the unemployment spell increases. Firms may then also discriminate against them as long-term unemployment sets in.

The above suggests that the theoretical effects of employment security legislation may be multiple: on the one hand, this legislation may generate higher average employment levels than in its absence; on the other, in the face of unexpected shocks, employers are forced to shed labour, thereby generating unemployment. In the presence of high firing costs, unemployment may tend to be more persistent.

The literature on employment security regulation has tended to stress the adverse impact of externally imposed regulations on the labour market as opposed to that bargained through unions and employers. Bertola (1990) has, however, argued that turnover costs (of any kind, whether legislated or not) are only a necessary, not sufficient, condition that allows insiders to increase their wages at the expense of additional employment. Moreover, efficiency wage theories offer a number of reasons why firms will set wages above the market clearing rate and the driving mechanism comes from the employer. Furthermore, implicit contracts between firms and employees may also result in longer tenures and lower turnover [see for example OECD (1984); OECD (1986*a,b*); and Chapter 4]. In addition, other institutions – as noted above – may aggravate or alleviate the impact of employment security regulation and thus blur the true nature of the constraint [Buechtemann ***et al.*** (1991)]. The literature also makes little mention of the different types of dismissal that can take place. All

are treated implicitly as the same and are assumed to have the same labour market impact, although regulations – and costs – can be quite different depending on the reason for dismissal.

There may also be positive labour market impacts associated with the imposition of employment security regulation. For example, advance notice requirements are usually advocated on the grounds that they can help reduce the probability, and duration, of displacement. Ruhm (1992), in a study of displaced workers in the United States, estimated that non-employment duration was reduced on average by two to seven days, and that pre-notification, both informal and written, reduced the probability of non-employment. He also found that informal, and not formal, notice reduced the duration of non-employment. He explained this finding by assuming that these individuals had better information than those who waited for formal notice. Finally, employment security regulation may promote functional flexibility. Moreover, it can force firms to internalise at least some of the costs associated with dismissal [OECD (1986*a*)].

iii) Literature review of the impact of employment security regulation

Little empirical work has been done linking employment security regulation to long-term unemployment. Heylen (1991) found that job security as defined by Bertola (1990) – described below – did put upward pressure on the incidence of long-term unemployment.[15] With respect to the effect of employment security regulation on unemployment, however, Lazear (1990) found that severance pay – in terms of months of payments required upon dismissal – increased the unemployment rate. He did not test for a link to unemployment persistence; however, Barro (1988) used Lazear's data as an explanatory variable in a model of unemployment persistence and did not find a significant link. Bertola found only weak evidence of a link between the strictness of employment security regulation and the unemployment rate using Lazear's index, but did find a strong link to the persistence of unemployment. Countries with high job security show greater persistence in unemployment than countries with relatively low job security. Thus, there appear to be conflicting views on the impact of employment security regulation on the persistence of unemployment.

iv) Empirical analysis

The purpose of this section is to check for a link between employment security regulation and long-term unemployment. Data from Table 3.8 (which outlines legislated notice and severance payments) are used in the analysis. A relationship between the level of job security (in terms of severance payments and notice requirements) and the change in long-term unemployment may be constructed on the basis of the insider theory. According to one interpretation of this theory, a country which experiences a shock of increased unemployment should also see long-term unemployment drift up because of employment security regulation. The insider effects that prevent wages from declining should, in turn, lead to outsider effects (*i.e.* unemployed workers lose their skills and motivation and are discriminated against by employers). Following this logic, the first step in the analysis is to check for a relationship between the level of and change in long-term unemployment (both the rate and the incidence) with respect to the stringency of job security legislation.[16]

Bertola (1990) created a job security index, which ranks ten countries by obstacles to dismissal based on Emerson (1988). The data show a weak link between Bertola's index and the incidence and rate of long-term unemployment, but a much stronger link to the ***change*** in the rate of long-term unemployment. However, this index covers only a small number of OECD countries, which limits its usefulness. In addition, questions concerning Bertola's index could also be raised with respect to the assumptions used to rank the countries, and their independence from long-term unemployment.

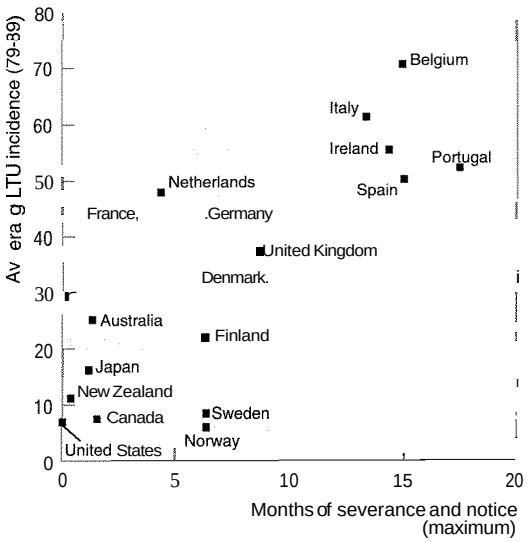
The source of the relative ranking – data in Emerson (1988) – is based on surveys of firms in 1985 and their views on employment flexibility. These data might be related to both the cycle and the timing of the survey since many countries experienced a slow-down in the 1981-83 period, and long-term unemployment would thus be expected to be relatively higher at this time. Firms would also naturally say that they would have desired more numerical flexibility ***ex post*** in such an economic climate. In addition, the results stemming from this sort of index are sensitive to the ranking, and any change in the order will have a strong impact on the results. It is therefore difficult to generate a robust index of the severity of regimes. For example, a comparison with a similar index created by Mosley (1992) based on more recent survey data indicates that the relative rankings changed for countries common to each index. Mosley's reputational index of eleven countries reverses the positions of Belgium and France found in Bertola (1990). The position of the United Kingdom is also different. It followed the Netherlands and Denmark in Mosley's index but preceded them in Bertola's.[17]

A more direct way of testing for a link between employment security regulation and long-term unemployment is to relate it directly to the months of severance pay/notice periods specified in the country legislation, since over the 1980s there were few changes (*i.e.* governments did not change legislation dramatically in the face of continued high long-term unemployment, although changes that were made seemed to be towards less protection). **A** more problematic question is which legislation to relate to long-term unemployment: as outlined above, severance and notice requirements differ for blue- and white-collar workers, as do minimum and maximum payments. Chart 3.2 shows the relationship between notice periods and severance payments (in terms of combined requirements) and various long-term unem-

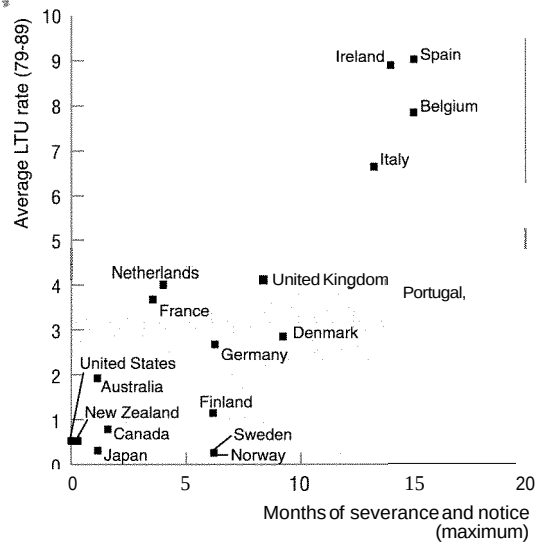
Chart 3.2

Dismissal costs and long-term unemployment (LTU), 1979-1989

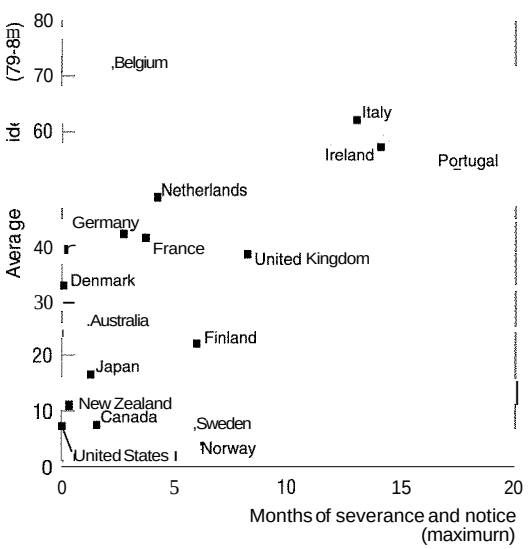
White-collar and LTU incidence



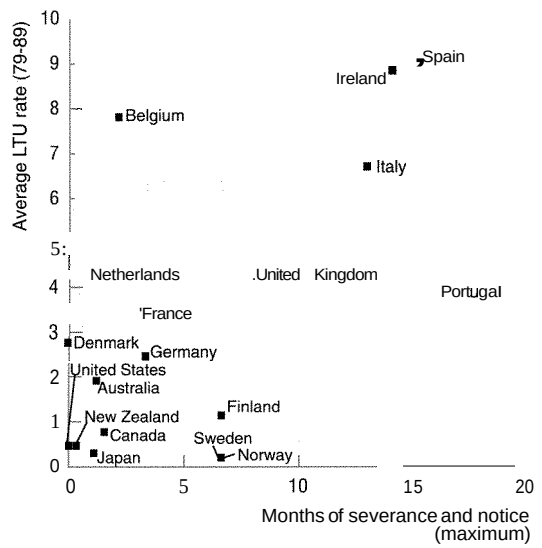
White-collar and LTU rate



Blue-collar and LTU incidence



Blue-collar and LTU rate



Sources: See Table 3.8; and OECD Employment *Outlook,* 1992, Table N **of** Statistical Annex.

ployment measures for a much wider range of OECD countries. This combination can be viewed as the total payment faced by the firm, *i.e.* where both notice and severance must be given to a dismissed worker. There appears to be some link between the average incidence and rate of long-term unemployment and legislated severance payments and notice periods that must be given to blue- and white-collar workers. In countries where severance payments and notice periods combine to form a relatively large payment (in terms of months of salary) to a dismissed worker, the incidence and rate of long-term unemployment are relatively higher. However, Chart 3.2 also shows that for a large number of countries the rate and incidence of long-term unemployment vary significantly even if there is not much difference among them in months of severance pay and notice requirements.

A second step was to perform an econometric analysis similar to that in Lazear (1990). The details are outlined in Annex 3.A. The analysis will focus on determining the explicit effect of notice periods and severance payments on long-term unemployment, taking into account other factors that may play a role (including unemployment benefit duration).

2. Duration effects

Several studies have stressed the importance of so-called duration effects, whereby the chances of finding a job decline as unemployment spells continue. There are two main reasons why these effects may arise. First, employers may be reluctant to recruit people with a long period of unsuccessful job-search. In this case, long-term unemployment is largely involuntary, in the sense that expected income associated with re-employment exceeds present income. Second, the unemployed themselves may become demotivated, especially if they regard the degree of social protection provided by the unemployment benefit system as satisfactory. This type of interaction may generate a loss of skills.

i) Demotivation and stigmatisation of the long-term unemployed

There is some evidence that long-term unemployment and unsuccessful job-search lead to demotivation [Colledge and Bartholomew (1980)]. The result may be a vicious circle, with lower self-esteem and demotivation in turn reducing the chances of finding a job. There may be health problems caused by long-term unemployment (some aspects of which are discussed in the Box) which will obviously represent an aggravating factor, further impairing job-search (although for a minority of the long-term unemployed). Studies of the attitudes of the unemployed with respect to job-search show that the number of contacts with public employment services declines with longer spells.

A survey by the Institute of Manpower Studies (1987) of the United Kingdom gives some support to the view that there may be a stigma attached to long-term unemployment and that employers use it as a screening device. The survey comprises about 500 enterprises from four different regions. The main result of the survey is that employers are reluctant to recruit the long-term unemployed simply because they lack recent work experience. A significant number of employers (around one-third) admitted that they refused even to interview long-term unemployed persons.

ii) The unemployment benefits system and unemployment duration

Analysis of the effects of unemployment benefits on labour market performance has provided fertile ground for academic research [see OECD (1991) for a survey of that research]. Unemployment benefits are considered an important factor shaping the incentives to work. As discussed by Mortensen (1977), the effects on work incentives go in two directions. First, the level of benefits and their duration are factors in raising the reservation wage. Higher reservation wages will reduce job-search and make the unemployed more "choosy" in evaluating job offers. To the extent that income prospects associated with available job offers are less than the reservation wage, the unemployed will have little incentive to accept job offers. Second, the unemployment benefits system will stimulate job-search in the case of workers not entitled to benefits or nearing the end of their entitlement period (the so-called "entitlement effect").

Accordingly, unemployment spells will tend to be longer in response to both a higher reservation wage and longer duration entitlements. The literature provides some supporting evidence for these hypotheses. For instance, microeconomic studies point to a relationship between the level of benefits and average unemployment duration. Narendranathan *et al.* (1985), using longitudinal data for the United Kingdom, estimate that a 1 per cent increase in benefits is associated with an increase in duration (for unemployed men) of around 0.3 per cent. According to a more recent study [Burda (1988)], international differences in the unemployment benefits system can partly explain differences in the long-term unemployment rate. Similarly, several studies suggest that the maximum duration of benefits may exert a strong effect on average unemployment duration. For example, Katz and Meyer (1990) estimate that 10 to 30 per cent of the difference in average unemployment duration between the United States and the United Kingdom can be explained by the longer duration of unemployment benefits in the latter country.

The administration of unemployment benefits as well as the kind of control mechanisms embedded in the system may also exert an important influence on unemployment duration. For example, the counselling activities of labour offices may enhance motivation of the unemployed, so stimulating job-search (see more details below). Thus, the frequency and effectiveness of contacts between labour offices and benefit claimants is reported

Some effects of long-term unemployment on individuals

Long-term unemployment has a very important bearing on individuals as well as society at large. To some extent this is related to the loss of income associated with long-term unemployment. However, as shown by Schnapper (1981), work plays a central role in societies, and its loss entails important disruptions in individuals' lives.

An illustration of the tensions provoked by long-term unemployment can be found in studies on mental health. There are two principal strands of theoretical work in this area. According to the stress theory, unemployment gives rise to mental health problems. Life satisfaction is reduced, self-esteem lowered and, as a result, unemployed people tend to face greater health problems. In contrast, according to the selection theory, the causation does not run from unemployment to health. Lay-offs and quits tend to be concentrated among people with poorer health.

This debate, while largely academic, is not without important policy implications. If the selection theory holds true, labour market policies will have little to offer in solving the socio-economic implications of long-term unemployment. On the other hand, if the stress-related explanations dominate, then labour market policies may have an important role to play. The issue then will be how to minimise the effects of unemployment on health. A related question is whether health problems associated with unemployment arise because of lower incomes. If this is the case, there will be implications for the design of income-support policies. On the other hand, if the health problems of the unemployed are largely independent of their financial situation, then the motivational aspects of labour policies become important.

A number of empirical studies have examined the interrelationship between unemployment and health. While there is some evidence in favour of both the selection and the stress theories, most of the studies point to a worsening of health conditions among the unemployed, especially the long-term ones:

- Platt and Kreitman (1984) find that the risk of suicide for long-term unemployed males in the United Kingdom was 20 times higher than in the case of employed males. The studies stress that the loss of income associated with unemployment may be an important factor behind this result.
- A study from Denmark [Iversen and Sabroe (1987)]suggests that psychological effects appear at a relatively early stage of unemployment, and that these problems seem to worsen as spells lengthen. This study also leads to two interesting conclusions which tend to support the stress theory. First, mental health complications are particularly acute in the case of laid-off unemployed. Second, re-employment significantly improves mental health.
- In Sweden, mortality rates for long-term unemployed people are 50 per cent higher than for employed people. This may be explained by the finding [see Janlert *et al.* (1992)] that health problems are more frequent for people experiencing long durations of unemployment.
- Hammarstrom *et al.* (1988) present the results of an analysis of health conditions among the young unemployed in Sweden. It emerges that young unemployed persons, especially those facing longer spells, experience more psychosomatic and psychological problems than young people who have found a job. The use of narcotics and alcohol consumption also seems to be more widespread among those without a regular job.

(Based on a report prepared for the Secretariat by Professor Anders Bjorklund, Stockholm University.)

to shorten average unemployment spells [OECD (1991)]. Also, the enforcement of signing-on and other control procedures may be important in reducing average unemployment spells [OECD (1992*b*)]. Thus, in Spain, the unemployed can in principle refuse two job offers but in practice many more, essentially because of inefficiencies in labour offices [OECD (1992*a*)].

International comparisons of replacement rates and benefits duration show significant cross-country variations, lending support to the above studies (Table 3.11). In North America, Japan and the Nordic countries (except Denmark), unemployment benefits are provided for relatively short periods. By contrast, in EC countries (except Italy), unemployment benefits may be extended for more than one year; in the case of Belgium, benefit duration is unlimited. As will be shown below, there exists a statistical relationship between the benefits duration and long-term unemployment. Replacement rates (actual unemployment benefit payments to average wages) also differ across countries. Thus in Nordic countries, Canada and a majority of EC countries, the replacement rate is relatively high, whereas it is relatively low in the United States, Japan, Italy and the United Kingdom.

However, it is important to note that unemployment benefits on their own cannot explain the rising trend in long-term unemployment recorded in most OECD countries. As pointed out by Burtless (1987), during the 1960s unemployment benefits systems were rather generous in most European countries. Moreover, over the 1980s, there has been a tendency to make the system more stringent, in particular by tightening eligibility criteria. In some countries, the level and maximum duration of benefits have been reduced. Table 3.11 shows that in the United States, Japan and France the maximum duration

Table 3.11. Maximum duration of unemployment benefits and replacement rates

	Maximum duration		Replacement rates'		
	1981	1989	1972	1980	1990
EC countries					
Belgium	Indefinite	Indefinite	0.83	0.73	
Denmark	2½ years	2½ years	..	0.60	0.47
France	3 years	2½ years	0.34	0.41	
Germany	1 year	1 year	0.74	0.64	0.42
Ireland	15 months	15 months		0.43	0.35
Italy	6 months	6 months	0.11	0.14	0.08
Netherlands		36 months		0.93	0.75
Spain	2 years	2 years		0.39	0.40
United Kingdom	1 year	1 year	0.43	0.28	0.16
Non-EC European countries					
Austria	30 weeks	30 weeks	0.55	0.57	0.57
Finland	100 weeks	100 weeks	0.32	0.50	0.61
Norway	40 weeks	80 weeks	0.18	0.32	0.39
Sweden	60 weeks	60 weeks	0.31	0.49	0.64
Switzerland	36 weeks	50 weeks			
Non-European OECD countries					
Canada	50 weeks	50 weeks		0.37	0.47
Japan	26 weeks	30 weeks	0.31	0.36	0.20
United States	39 weeks	26 weeks	0.36	0.36	0.36

has been markedly cut since 1980. Also, in the majority of Member countries, replacement rates have tended to fall, especially in Germany, the United Kingdom, Canada and the Netherlands. The only country where the system has probably been made more generous is Norway, perhaps reflecting oil wealth and, until recently, low unemployment.

3. Econometric analysis of long-term unemployment

The previous sections have outlined possible links between long-term unemployment and several other factors, including job security and unemployment benefits. This section brings these factors together and discusses their impact on long-term unemployment based on a regression detailed in Annex 3.A. The regression is a pooled time-series/cross-section estimation for **19** OECD countries. Several combinations of explanatory variables were tested and the main results of two regressions are presented in Chart 3.3. The first contains maximum severance payments and notice periods for blue-collar workers (combined as one factor) and the second contains the same for white-collar workers. The equations also include the maximum duration of unemployment benefits and the ratio of expenditures on active labour market policies to unemployment benefits. The latter variable measures the degree of labour policy activism, and can be justified on the grounds that countries which shift resources to active programmes, at the expense of (passive) income maintenance, are likely to reduce unemployment persistence. This may happen for two reasons. First, a combination of generous unemployment benefits systems and the loss of skills during unemployment may help explain some international differences in persistent unemployment. Reflecting the erosion of (already low) skills, job opportunities available to the long-term unemployed will provide relatively low wages, which may not give adequate incentives to seek work if unemployment benefits are unduly high. This will in turn lead to further losses in skills. Second, as discussed in the next section, active programmes may stimulate the job-search of long-term unemployed persons while at the same time improving their job prospects (notably in the case of training programmes). In that sense, active policies may remedy some of the disincentive effects associated with the unemployment benefits system. Clearly, Chart **3.3** does not offer a comprehensive list of all the factors that can affect the incidence of long-term unemployment. Within these limitations, however, the equation is helpful in gauging the strength of association between the chosen factors.

Table 3.12. Unemployment equations

t-statistics in parentheses

	Dependent variable: Long-term unemployment rate				Dependent variable: Long-term unemployment incidence			
	(1)		(2)		(1)		(2)	
Job security (white-collars)	0.36	(4.9)			2.89	(5.1)		
Job security (blue-collars)			0.41	(5.2)			3.01	(4.4)
Maximum duration of benefits	0.02	(2.3)	0.03	(3.9)	0.15	(2.6)	0.23	(3.9)
Active expenditure/unemployment benefits	–1.45	(1.8)	–2.00	(2.4)	–3.32	(0.5)	-6.47	(0.9)
$\overline{R}^2$	0.75		0.76		0.82		0.78	
Number of observations	19		19		19		19	

	(1)		(2)	
Job security (white-collars)	0.07	(0.8)		
Job security (blue-collars)			0.13	(1.5)
Maximum duration of benefits	0.02	(2.6)	0.02	(3.1)
Active expenditure/unemployment benefits	0.57	(0.6)	0.17	(0.2)
$\overline{R}^2$	0.55		0.59	
Number of observations	19		19	

Note: The equations were also estimated with a constant term, which was not significant, while the values of the other parameters were broadly unchanged. **All** variables are calculated as the average over the period 1979-91. For a detailed description of variables, see Annex **3.A.**

Source: OECD estimates.

The three variables have significant statistical association with long-term unemployment (Table 3.12). The coefficients indicate that job security (as measured) and the maximum duration of unemployment benefits are associated with higher long-term unemployment rates. Also, the results suggest that in countries where the degree of labour policy activism is higher, long-term unemployment is lower. The table then shows coefficients using the same equation but with the rate of short-term unemployment (*i.e.* a duration of less than six months) as the dependent variable; the results are generally less significant. There is a weak association between the three explanatory variables (taken as a whole) and the short-term unemployment rate, which may better reflect cyclical fluctuations in demand and output than structural factors.

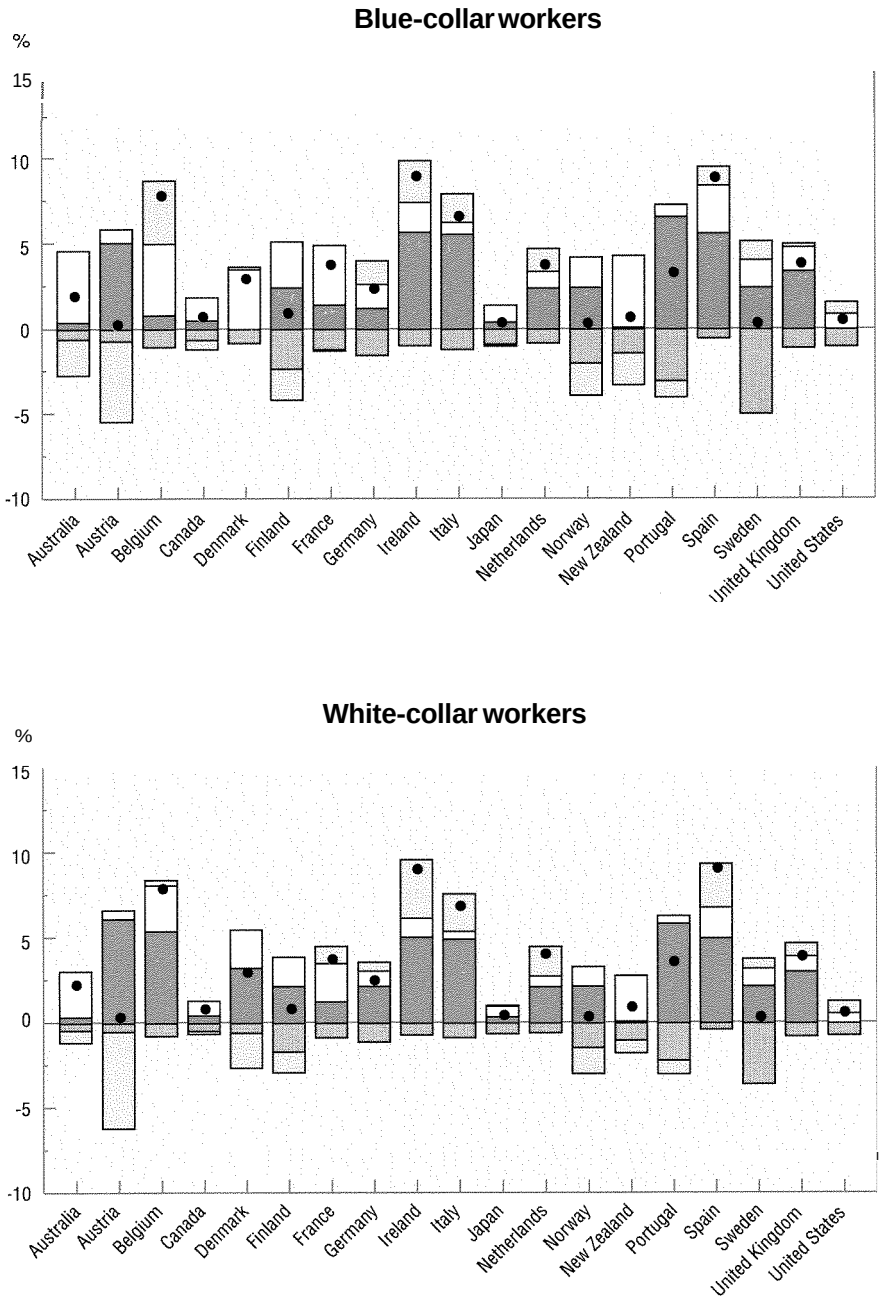
Chart 3.3 shows the amount of variation in the average rate of long-term unemployment that can be accounted for by each variable (including the residual) for each country, over the period 1979-91. In some countries (notably Southern Europe and Ireland), proxies for job security account for more than half of the long-term unemployment rate. Particularly strong is the impact of job security regulations pertaining to blue-collar workers. The duration of unemployment benefits, although significant, offers less of an explanation. The degree of policy activism appears to be important in maintaining low unemployment in certain countries, notably the Nordic countries.

Another salient feature of Chart 3.3 is that residuals are particularly large in a few countries, notably Austria (where the long-term unemployment rate is less than suggested by equation results), Ireland and Spain. In the latter two countries, the high level of unemployment can only be partly accounted for by these explanatory variables. In other words, large residuals suggest the existence of country-specific factors that have not been taken into account, for example in the area of labour market institutions. In the case of Austria, a country with relatively stringent job security regulations and a low level of active labour market expenditure, long-term unemployment is not a major problem. This may reflect the counter-cyclical role of public enterprises, which represent an important share of the Austrian economy. Also, the high degree of co-ordination of wage-bargaining in Austria has undoubtedly improved wage flexibility, thereby facilitating labour market adjustment. The equation examined here clearly does not take these factors into account.

From a policy perspective, several considerations should be kept in mind. First, employment protection legislation is only one part of the implicit and explicit rules, regulations and customs that govern employer-employee relationships and determine hiring and firing

Chart **3.3**

Estimated contributions of employment protection legislation and labour market policies to long-term unemployment rate[a]



Severance and notice (15 years tenure)

Maximum unemployment benefit duration

Active programme expenditures/unemployment benefits

Unexplained

Long-term unemployment rate (1979-91 average)

a) For a detailed explanation of the variables used, see Annex 3.A.

Source: OECO estimates.

costs and behaviour. Only one aspect of the explicit regulations have been examined here. An important question not investigated here concerns the degree to which legislative provisions codify what would otherwise be prevalent through employer-employee arrangements, including collective bargaining, and how this might vary across countries. Second, job security legislation and arrangements have a number of effects on the labour market; one such effect concerns the working of the internal labour market and its impact on human resource development. What has been reported above is one aspect of a range of effects, namely that on long-term unemployment. Other effects need to be considered in forming a judgement about the overall impact employment protection legislation might have on the labour market. Third, the statistical relationship reported above itself suffers from some limitations: different levels of long-term unemployment are observed in countries where the stringency of employment protection legislation, as measured here, is similar; the level of residuals is rather large in a number of countries, etc. Finally, the mechanisms through which employment protection legislation might have an impact on long-term unemployment have not been discussed and analysed and there is no clear consensus on them. It is suggested above that some combination of insider-outsider forces might be at work, but within the confines of this chapter, these relationships could not be precisely specified or empirically examined. To conclude, the statistical relationship presented above should be viewed as suggestive and it calls for additional theoretical and empirical work before it is possible to draw firm policy conclusions.

E. THE ROLE OF ACTIVE POLICIES AND TEMPORARY CONTRACTS

Remedies to long-term unemployment need to reflect the nature of the problem and its causes. The previous section suggests that cross-country differences in long-term unemployment may be partly explained by a number of factors affecting both the job offers available to the long-term unemployed and their willingness and ability to accept those jobs. Job offers for the long-term unemployed may be inhibited by job security regulations as well as low aggregate demand. On the other hand, the long-term unemployed may not be in a position to compete effectively for jobs, reflecting in part their low level of skills and disincentives to job-search caused by certain aspects of the income maintenance system that generate dependency.

In considering policy initiatives, it is useful to distinguish two aspects of the long-term unemployment problem: a *flow* dimension, *i.e.* the marginal changes over time, and a *stock* dimension. As economic conditions worsen, one can expect that some short-term unemployed will join the ranks of the long-term unemployed (the flow dimension). The stock problem arises when the flow out of this group is small, even in the context of improved economic conditions. An illustration of the stock problem is the upward shift in the relationship between the aggregate unemployment rate and the incidence of long-term unemployment recorded in the majority of OECD countries (Chart 3.1). In other words, even if the aggregate unemployment rate could return to its pre-1980 level, the incidence of long-term unemployment would be higher than past relationships would suggest.

This section does not intend to review all the approaches and measures adopted by OECD countries in dealing with the problem of long-term unemployment. A review of some of the evaluations of active labour market policies is provided in Chapter 2. Many of these programmes, even if not targeted exclusively on the long-term unemployed, have an impact on this category. Therefore, this section first summarises the ways in which active policies might help in tackling long-term unemployment. One recent example of addressing the issue, the French programme of interviews, is then taken up. Given the association between employment security legislation features and long-term unemployment, the last part of the section examines developments in the area of temporary contracts, focusing in particular on the experience of France and Spain.

1. Active policies

As discussed in Chapter 2, active labour market policies comprise a variety of programmes, including placement and counselling of the unemployed, training, direct job creation and employment subsidies. Active programmes can facilitate the effective labour market participation of the long-term unemployed in a number of ways. First, close monitoring of and frequent interviews with the long-term unemployed can contribute to maintaining their contact with the labour market, while also reducing the risk of demotivation. Second, training programmes can help upgrade and adapt the skills of the unemployed. At the same time, effective training courses may help attenuate employers' reluctance to recruit long-term unemployed persons who are both willing and capable of following the courses. Third, the availability of jobs for the long-term unemployed can be increased either directly by way of public employment schemes or indirectly through job subsidy programmes. The development of temporary contracts may also facilitate the placement of the long-term unemployed, and may thus be viewed as a useful complement to active policy measures.

Contact with the labour market – a specific example

There seems to be some consensus that the use of individual interviews with unemployed people may help policy-makers arrive at appropriate decisions concerning

the design and remuneration of programmes. Recent OECD work has highlighted the importance of labour market contact in combating unemployment [OECD (1992*b*, Chapter 3); OECD (1993)]. What follows is a look at one recent initiative in France.

In February 1992 the government introduced a new programme specifically designed to combat long-term unemployment, one of the most pronounced imbalances of the labour market in France. The main aim of the programme was to evaluate, through individual interviews, the job prospects of people unemployed for more than a year. An important dimension was to identify new training requirements while at the same time making the necessary adjustments to existing active labour market measures, tailoring them to the needs of the long-term unemployed.

By October 1992, more than one million interviews had been carried out, mainly through local employment offices; thus, virtually every long-term unemployed person was interviewed. This led to an actual placement in 17 per cent of the cases. Another 17 per cent were offered either a training scheme or a job, both under the community work programme (solidarity scheme). The programme is targeted at unemployed people with broadly adequate skills and qualifications who are handicapped by social or individual factors. In nearly 30 per cent of the interviews, either a job or a training scheme was to be provided (in a few cases, the signing of a contract with a private enterprise was pending). A quarter of the interviews led to no immediate solution or proposal. This reflects the very difficult social conditions or labour market situation of many unemployed; however, it also appears that some unemployed did not accept the proposals made by the employment office. Finally, shortly after the interviews, some 16 per cent of the clients were taken off the registers (some due to retirement and other special factors, but a number because they did not fulfil the search criteria).

Since the programme is new, full evaluation of its effects has not been carried out and it is difficult to assess its effectiveness. In particular, a number of exogenous factors need to be taken into account. As Table 3.13 indicates, during the ten months following its introduction, long-term unemployment declined by about 5 per cent. However, this improvement was more than offset by a substantial flow into (short-term) unemployment; the total number of registered unemployed increased by 2 per cent during the same period. Also, Table 3.13 shows a substantial rise in the placements of long-term unemployed persons during the first ten months of 1992, but this was accompanied by an equivalent reduction in placements of other unemployed categories, leaving the total number of hirings (of the unemployed) unaltered. It

Table **3.13. Results of the French programme of interviews with the long-term unemployed**

Flows out of unemployment, in thousands

	January to October		Change
	1991	1992	
Flow out of total unemployment	3 281	3 455	174
of which:			
Long-term unemployed	578	768	190
Unemployed who found a regular job	1 445	1 440	–5
of which:			
Long-term unemployed	223	250	27
Other flows out of unemployment	1 836	2 015	179
of which:			
Long-term unemployed	355	518	163
Due to:			
Community work	68	112	44
Training	94	124	30
Termination of search	149	184	35
Removal from register	15	64	49
Other reasons	29	34	5
	January 1992	November 1992	
Memorandum items: (in thousands, end of month stock)			
Registered unemployment, total	2 966	3 028	62
Registered unemployment, long-term	918	882	–36
(incidence of long-term unemployment)	(31.0)	(29.1)	

Source *La Lutte contre l'exclusion et le chômage de longue durée*, ministère du Travail, de l'Emploi et de la Formation professronnelle (1993), Paris

can thus be argued that the measures favouring the long-term unemployed have to some extent displaced job creation, while not improving the overall labour market situation. However, given its recent introduction and the difficult economic conditions that prevailed in 1992, it is encouraging that the interview programme, which was relatively inexpensive,[18] did improve job prospects for the long-term unemployed.

2. Temporary contracts

Another development that has had an impact on long-term unemployment in some countries relates to temporary or fixed-term contracts, wbicb are discussed at some length in Chapter 1.

While there is no discernible relationship between the share of workers under temporary contracts and the average incidence of long-term unemployment over the 1980s, there is evidence that France and Spain, two countries where temporary contracts have expanded most rapidly, have recorded a marked decline in the incidence of long-term unemployment during the period 1985-91 (Table 3.14).

In the case of France, two legislative changes may have contributed to the expansion of temporary jobs. First, in 1986, prior administrative authorisation for collective dismissals was abolished. Second, since 1985, certain job creation schemes provide incentives for the placement in temporary jobs of unemployed persons. As a result, recent evidence indicates that temporary contracts account for a large percentage of new jobs. Of about one million jobs created since the start of the recovery in 1986, approximately half are accounted for by the rise in temporary contracts (mainly fixed-term). Nearly 40 per cent of long-term unemployed persons who found a job in 1989 had a temporary contract, compared to 30 per cent for other categories of workers.

The case of Spain is particularly interesting. In 1984, the Spanish government introduced the possibility of fixed-term contracts, a provision which already existed in many OECD countries. The aim was to promote job creation by mitigating the effects of the rules governing permanent contracts. There are many types of fixed-term contracts, the most popular one (in terms of job creation) being the so-called temporary contract. The minimum duration of a temporary contract is six months. Until 1992, the temporary contract could be renewed up to a maximum of three years (two years since); a renewal must involve a permanent contract thereafter. All workers can be hired using a temporary contract. There are also more specific fixed-term contracts which are designed to help disadvantaged groups, in particular unskilled youths and the disabled. In contrast to the temporary and part-time contracts, these schemes receive an incentive from the government, in the form of reduced social security contributions or direct grants to employers.

Since their introduction, employment under fixed-term contracts has expanded very rapidly. During the 1985-91 period, total non-agricultural employment rose by almost two million. This large increase is fully accounted for by fixed-term contracts; indeed, the number of employees with permanent contracts has declined somewhat. As a result, nearly 40 per cent of Spanish employees had a fixed-term contract in 1992. These trends have gone hand-in-hand with a substantial cut in long-term unemployment, both in absolute terms – down about three-quarters of a million between 1985 and 1992 – and as a proportion of total unemployment (7 percentage points). As a result, the incidence of long-term unemployment declined to slightly above 50 per cent.

Table 3.14. **Temporary contracts and long-term unemployment in France and Spain**

	France			Spain		
	1985	**1990**	**1991**	**1985**	**1990**	**1991**
Long-term unemployment rate	4.8	3.4	3.5	12.2	8.8	8.3
Long-term unemployment incidence	46.8	38.3	37.3	56.7	54.0	51.1
Employees under temporary contracts:						
In millions	0.8	1.9	1.9	0.5[b]	2.7	3.0
As percentage of total employees	4.7	10.5	10.2	10.0[b]	29.8	32.1
Probability" of unemployed finding:						
A job	27.1	28.6	35.7	25.3[c]	32.8	
A temporary job	7.8	13.6	15.9	15.4[c]	27.4	

.. Data not available.
a) The employment probability is estimated as the ratio of those unemployed in year *t* who found a job in year t + I, to the total number of unemployed in year *t*.
b) Estimates based on registration data.
c) Refers to **1986.**
Sources: See Table P of the Statistical Annex; and Eurostat on the basis of each country's Labour Force Sample Survey.

The most striking improvement occurred in the category of male unemployment.

A better understanding of the effects of fixed-term contracts on long-term unemployment is provided by data on the characteristics of new hirings. Fixed-term contracts account for three-fifths of total new hirings. Among the long-term unemployed persons who found a job, the proportion of temporary contracts is markedly higher, suggesting that the scheme has had a particularly positive effect on the re-employment chances of the long-term unemployed. Indeed, 6.2 per cent of workers with a temporary contract in 1990 had been unemployed for more than two years in 1989. This proportion is five times as high as that for the short-term unemployed and twice as high as that for people with unemployment spells of between one and two years.

In conclusion, there is some evidence that in France and Spain, temporary contracts can help reduce long-term unemployment. The development of various types of temporary contracts may present several advantages. First, temporary contracts are cost-free for the budget, thus avoiding the possible displacement effects that may be associated with more expensive schemes. Second, temporary work can, as part of active labour market policies, be specifically used to employ the long-term unemployed (as for example in the community work programme in France). Finally, fixed-term contracts offer benefits to both the long-term unemployed and employers. Firms might be reluctant to hire the long-term unemployed because of concerns over their levels of skills and motivation. In taking on these individuals under permanent contracts, employers risk large dismissal costs if they do not prove satisfactory. Temporary contracts offer the opportunity of screening the long-term unemployed as well as others. For the long-term unemployed, these contracts offer an opportunity to re-enter employment.

The question arises as to whether the experience with temporary contracts in Spain and France is relevant to other OECD countries. As shown in Chapter 1, in a majority of OECD countries the legislation governing temporary contracts is already rather liberal and there is thus little scope for extending them further. Moreover, in the non-European OECD countries and Denmark, legislated employment protection is light, blumng the distinction between temporary contracts and permanent contracts. It is in countries where permanent contracts entail a high level of protection *and* opportunities of recruiting workers on temporary contracts are restricted that the experience of France and Spain could be of interest.

However, it is important to stress that temporary contracts do not go without costs. The situation may prove destabilizing for those individuals under temporary contracts, who may have to face frequent turnover and repeated spells of unemployment. If individuals gaining access to the labour market through this arrangement get trapped in temporary dead-end jobs, temporary contracts may create a dual labour market, which entails costs for the economy as a whole.

F. CONCLUSIONS

Most OECD countries are experiencing high and rising unemployment rates, and prospects point to a further worsening. **A** particularly worrisome development is that, despite high growth during the second half of the 1980s, the number of those without a job for a long period has sharply increased in many OECD countries. This is not without costs for the economy and society at large. The chapter provides evidence that the long-term unemployed are to some extent marginalised in the labour market, so depriving the economy of a large potential workforce. This view is supported by statistical analysis of wage formation, whereby the higher the incidence of long-term unemployment, the lower the pressures for wage moderation. The chapter has not examined the social costs of long-term unemployment; however, one particular issue – its impact on health – is considered, and the effects for some unemployed persons are damaging.

There are many plausible explanations why long-term unemployment has reached such disproportionate levels. The chapter has looked at possible factors at work which may shape the response of labour markets to demand and supply shocks: the relationship between job security provisions and long-term unemployment, and the possible consequences of unemployment benefits systems on unemployment duration. The following conclusions emerge from the analysis.

First, long-term unemployment has gone hand-in-hand with low output growth during the last two decades. One reason is that a tighter macroeconomic stance was called for to deal with strong inflation pressures associated with the twin oil shocks. Another is that technological change has reduced the demand for unskilled labour, as witnessed by the relatively low education standards of long-term unemployed people. Because of labour market rigidities, demand and supply shocks have been associated with persistent unemployment, particularly in the EC countries.

Second, among the labour market rigidities possibly at work, the chapter examines job security regulations and unemployment benefits. There is considerable variance in dismissal costs across countries. High turnover costs reduce employers' demand for labour in the face of uncertainty about future demand and output. This may give rise to insider effects – incumbent workers might take advantage of high turnover costs to demand higher wages than would otherwise be possible, thus reducing employment prospects for the unemployed. The adverse effect on employment could, in principle, be offset by a lowering of wage demands by the unemployed. Even if they had much say in the wage determination process, the incentive to do so might be limited if unemployment benefits set unrealistically high reservation-wage floors, hence the persistence of high incidence of long-term unemployment. It should be noted, however, that to

account for persistence, it has to be assumed that employers are faced with continued uncertainty about future demand and output.

These results should be viewed in the wider context of other labour market effects of job security legislation, and should not be directly used to draw policy conclusions. Additional analysis is needed to examine the range of effects employment protection legislation might have on the labour market and to identify the mechanisms through which such legislation might be affecting long-term unemployment,

Understanding the causes of long-term unemployment does not necessarily provide the possible remedies. Changing the rules governing unemployment benefits or job security will contribute to solving the *flow* problem and help arrest the steep upward trend in long-term unemployment. However, special measures are required if the *stock* problem is to be addressed, because long-term unemployment is to some extent irreversible; reversing the causes that led to unemployment is not enough to improve the chances of these persons finding a job after a long period of joblessness. There are strong outsider effects at work: long-term unemployed persons often become demotivated, while employers are reluctant to hire them.

Therefore, the chapter looks in some detail at two possible measures to solve the stock problem, namely active programmes and fixed-term contracts. Active policies have a clear potential to reduce long-term unemployment. There is evidence that certain labour market programmes, such as the recent French programme of interviews with the long-term unemployed, can meet with some success. More generally, there is a need to reinforce the matching role of employment services by improving the design and administration of both active and passive programmes, thereby making the job-search more effective.

There is some evidence that in France and Spain, the development of temporary contracts has been associated with a reduction in the number and incidence of long-term unemployed. Temporary contracts may alleviate the stigmatisation of people with unsuccessful job-search experience. These schemes entail a low dismissal cost, thereby reducing the risk involved in recruiting the long-term unemployed. This may prove an attractive solution, especially in cases where skills are inadequate. However, it should be stressed that temporary contracts may have undesirable consequences, in so far as they can lead to repeated spells in unemployment and high turnover. Recurrent (un)employment may not only cause individual hardship, but also generate serious losses in economic efficiency; indeed, a high turnover will weaken the human capital and productivity gains that normally come with more stable work arrangements and practices.

NOTES

1. This total excludes Austria, Iceland, Luxembourg, New Zealand, Portugal, Switzerland, and Turkey for which labour force data were not available.
2. A distinction must also be made between registration data and labour force survey data [see OECD (1987)].
3. The number of individuals participating in training programmes who are not included in long-term unemployment can be substantial. According to data for the United Kingdom in 1985, the average number of participants in a targeted programme at any one time was about 145 000, roughly 11 per cent of the stock of long-term unemployed [OECD (1988)].
4. Women's non-participation could be the result of eligibility requirements for the receipt of unemployment benefits/assistance, such as means testing. It could also be the result of broken work histories which would make women not eligible for compensation [OECD (1992*b*)]. These factors would tend to lower the share of women in long-term unemployment. Another group affected by policy measures would be older workers who faced a number of programmes to reduce participation in the 1980s [see OECD (19926, Chapter 5)]. Finally, in some countries, repeat unemployment spells may be important, regardless of the level of long-term unemployment; to the extent that these combined spells add up to a long period of unemployment, individuals in this group may be considered as long-term unemployed.
5. As the flow into unemployment increases relative to outflows in an economic downturn, the incidence falls because short spells of unemployment dominate. In the recovery phase, the incidence of long-term unemployment continues to rise even if flows into and out of unemployment are equal, because most outflows consist of the recent unemployed. Over the course of time, the change in incidence of long-term unemployment will depend on the outflow rate (of the long-term and short-term unemployed) relative to the flow into unemployment [see OECD (1987, p. 174) for a more complete description].
6. Either in the accounting sense that the long-term unemployed were no longer in the labour force, or because of success with the programmes.
7. On the other hand, if these options were not available or taken, job-specific skills and relatively poor labour market information would tend to leave the older worker age group relatively disadvantaged in the case of job displacement, thus leading to longer duration. In the case of older workers, relatively low shares of long-term unemployment and relatively low inflows suggest that long-term unemployment is a result of an outflow problem, as discussed in [OECD (1992*b*)], and relates to factors outlined above.

8. For example, Layard and Nickell's equation would predict lower real wages in the face of a decline in aggregate unemployment, when the latter is fully accounted for by (lower) long-term unemployment. In order to avoid these perverse results, Turner and Whitley show that a constraint has to be imposed on certain equation parameters.
9. This latter constraint was made to allow for more degrees of freedom. Results are essentially unaltered when either the variable or the constraint are dropped.
10. In the study of Layard and Nickell, the effect is nearly three times larger.
11. The equation was also estimated using time-series data for long-term unemployment, instead of the average. Parameter values remained broadly unaltered, but became much less significant. This result is not surprising in the presence of multicollinearity.
12. More specifically, structural unemployment (U*) is the level of unemployment that is consistent with the steady-state condition whereby real wages grow in line with productivity growth (RW = Q). Thus, U* can be written as follows:

    $U^* = [-c.LTU + (1-b).Q - \text{constant term}]/a.$
13. Employment security is a broader concept than job security. The latter is strictly defined as preserving an individual's ability to do the exact same job, while employment security refers to keeping the individual within the firm but not necessarily in the same job [Meltz (1989)].
14. These types of changes may in fact further protect the "permanent" workforce if flexibility is only exercised through the temporary labour force. In effect, another insider group – the permanent staff – may be created through these changes. The longer-run productivity effects of temporary contracts are also unclear; these could have an impact on longer-run job creation.
15. The results of Heylen's regression, however, are less than convincing given the statistical properties of the regression: a sample size of nine observations with only five degrees of freedom.
16. For example, Gordon (1990) outlines the case where the oil shocks of the 1970s caused the insider workforce to contract; when labour demand recovered, insiders set wages to maximise their own welfare, discouraging employment and making unemployment persist. This could also be the case for the 1979 oil shock, after which long-term unemployment increased sharply in most OECD countries. Outsider effects such as deterioration of skills would also set in.
17. These reputational indices have one advantage, however. They are based on a survey that includes questions about flexibility in addition to severance pay and notice requirements. They can therefore take into account ***implicit*** changes in employment security regulation that are not affected directly in legislation pertaining to notice and severance pay. Mosley notes that the ranking of the Netherlands changed despite any corresponding change in the regulatory environment.
18. Only 120 people were recruited in 1992 for the purpose of carrying out the interviews.

Annex 3.A

ECONOMETRIC ANALYSIS OF LONG-TERM UNEMPLOYMENT

This annex looks at the extent to which differences across countries in the rate and incidence of long-term unemployment can be explained by factors discussed in Section D.3, *i.e.* the maximum duration of unemployment benefits, the ratio of active labour market policy expenditure to unemployment benefits, and some aspects of job security legislation (dismissal costs and notice period). Given the complexity of job security legislation, the annex first describes severance pay and notice period variables that were used in the equations as explanatory variables. It then presents estimation results for nineteen OECD countries.

1. Data description of the severance pay and notice period variables

Data on severance pay and notice periods refer only to legislated requirements for individual dismissal. Eight variables were created using legislative data presented in Table 3.8: maximum and minimum notice periods and severance pay, for blue- and white-collar workers. Blue- and white-collar differentiation follows the distinction made in most legislation. If no distinction was made, the same payments/notice periods are assumed for both types of workers. In addition, assumptions needed to be made about tenure in four countries where no maximum payments/periods were set out by law: Canada, France, Italy and Portugal. In these cases, two additional scenarios were examined under assumptions of ten and fifteen years of service.

Although severance pay and notice periods typically vary with tenure and reason for dismissal, only maximum and minimum periods and pay amounts are analysed in relation to long-term unemployment, due to the complexity of the legislation. Lazear (1990) assumed a blue-collar worker with ten years' experience in his work, but by using both maximum and minimum payments, a wider range of options is available. Although it could be argued that maximum payments/notice would not apply to all workers based on current tenure data (see Chapter 4) – if tenure is assumed independent of job security provisions – there are reasons to believe that what may actually matter to the firm are the maximum payments. For example, if just cause is difficult to prove, firms may assume that it is the maximum severance pay that will have to be given upon firing, especially if they do not want to face costly lawsuits or delays in contract termination. Using maxium and minimum variables provides a better examination of the constraint firms face. There is also some evidence to suggest that what firms are mainly concerned about is perceived costs even if these are unlikely to be incurred; for example, large settlements in lawsuits for unjust dismissal may lower employment. In the United States, where no legislated provisions exist for dismissal, it is litigation that generally determines the amount that will be paid to a worker in the case of unjust dismissal. However, it should be noted that data on court settlements may be misleading if many cases are settled out of court. Data would not be available on actual costs and the figures published would therefore not be an accurate reflection.

Using the various sources listed in Table 3.8, a time-series can be created for each of these variables. However, even given this time-series, there was not much fluctuation in the legislative variables from 1979 to 1990, the sample period over which long-term unemployment data were available for a large number of OECD countries. Thus, most explanatory power in the regressions would come from cross-country variation. These data are a proxy for all costs associated with contract termination despite the fact that many other costs could exist and are not explicitly included. For example, the data do not cover payments or periods that must be provided through collective agreements which may exceed legislated requirements; there may also be high costs involved with meeting any ministry of labour/works council/labour court demand for information before a dismissal can go through. In addition, firms may face other costs associated with dismissals that are not readily apparent, including the effects on worker productivity and monitoring.

For the regressions, maximum severance payments and notice periods were added together for each of blue- and white-collar workers (as were the minimums). This is justifed because both of them must be given, and this addition yields the total effective payment that must be made by the firm. For example, if pay in lieu of notice is given by a firm, that would increase payments and reduce notice periods – but the maximum and minimum total payments would remain unchanged. As outlined below, however, the variables were also entered separately for the regressions, since it is possible that the channel through which each affects long-term unemployment could vary.

2. Estimation results

The two basic equations that have been estimated can be written as follows:

$$\text{LTU rate} = a.\text{JOBSEC} + b.\text{UNDUR} + c.\text{ACTPOL}$$

$$\text{LTU incidence} = a.\text{JOBSEC} + b.\text{UNDUR} + c.\text{ACTPOL}$$

where LTU denotes long-term unemployment; JOBSEC represents the maximum level of dismissal costs (including notice period) in months; UNDUR represents the maximum duration of unemployment benefits in months; and ACTPOL is the ratio of active policy expenditures to passive policy expenditures.

The choice of the explanatory variables was made on purely statistical grounds. The final equation includes the maximum duration of unemployment benefits – rather than the replacement rate – because of a better tracking performance. Likewise, various proxies for job security were used: severance pay under the two assumptions of ten and fifteen years of service, notice period, unfair dismissal costs and, where relevant, a combination of the first two. Indeed, as explained above, dismissed workers can accumulate payments during the notice period with dismissal benefits. This proxy for job security (with fifteen years of service) was preferred to the alternatives because of its relatively high explanatory power. Although data for both blue- and white-collar workers are available, the dependent variable in the regression – long-term unemployment – cannot be split in this way. With no precise data on the proportion of long-term unemployed made up of blue/white-collar workers, it is useful to enter each set of variables into the regression to see which are more helpful in explaining long-term unemployment.

The equations do not include explicit demand-side factors. An attempt was made to capture such factors by including the change during the 1980s in real interest rates as an explanatory variable. The coefficient on this variable had the expected sign (meaning that long-term unemployment is higher in countries where real interest rates increased most during the 1980s), but was not significant.

Variables were calculated as an average for the period 1979-91 except for ACTPOL, for which the period 1985-91 was used because earlier observations are not available for all countries. The equations have been estimated using data for all OECD countries except Greece, Iceland, Luxembourg, Switzerland and Turkey; each variable thus has 19 observations.

Estimation results are shown in Table 3.12. Both the rate and the incidence of long-term unemployment are higher in countries with more stringent job security legislation and longer benefit duration. The opposite is true in countries where active programme expenditures play a more prominent role. Conventional tests suggest that both the proxy for job security and benefits duration are statistically significant. The active programme expenditure variable is significant only in one formulation of the long-term unemployment equation.

In order to test for the robustness of these results, the equations were repeated using the short-term unemployment rate as the dependent variable. Short-term unemployment is defined here as unemployment of less than six months. As can be seen from Table 3.12, the short-term rate equation gives less satisfactory results than the long-term rate equation. This suggests that the three explanatory variables have a stronger relationship with the long-term than the short-term rate.

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