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The resilience of the long-term employment relationship: Evidence from the industrialized countries

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Labour markets in the industrialized countries are said to have changed dramatically in recent years. According to the "end-of-jobs" theories, long-term jobs with a single employer are a thing of the past: job stability has gone and is not going to return. The future seems to belong to a labour market offering mostly short-term and unstable jobs, which may be of high or low quality in terms of wages, skills and working conditions. Individuals are being told to prepare for a flexible labour market with frequent changes between jobs, or between jobs and other activities or spells of inactivity. This "new" labour market is supposed to require constant readjustment through lifelong education and learning together with a general preparedness for change. In fact, individuals are told to behave like "entrepreneurs", to manage their careers efficiently and to remain in a constant state of "employability" — some sort of potential status that would allow them to change jobs easily both internally and externally. Linked to this vision is the strong likelihood that traditional social protection, typically based on continuous employment, is not sufficient to protect the growing contingent and volatile workforce. New systems therefore have to be designed in which individuals take on much greater responsibility in risk-sharing (and/or in paying for insuring the risk) than before.

The reasons given for the change from a stable to a flexible workforce are manifold, but globalization and information and communication technologies (ICT) are among those most commonly advanced. Another reason is said to be deregulation of the labour market itself. Globalization is affecting and displacing low-skilled labour in particular, while the ICT sector is said to require a highly adaptable workforce because the sector itself is prone to constant changes. Compared with the image of the stable, long-tenured industrial labour markets of the 1970s and 1980s, today's popular discourse about a volatile, basically unorganized and unregulated labour market might suggest that changes have been dramatic and that supply *must* react in the way described

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above in order to match demand. According to the media at least, the "old" labour market, offering stable (if not "lifetime") jobs, seems to have vanished for good. Consultancy firms contribute to this image: "jobs are understood to be little more than temporary assignments", and the models for career planning in today's environment are provided by the theatre and professional sports (see, for example, Stybel, Peabody and Associates, at http://www.stybelpeabody.com). The labour market is generally seen as one in which the bonds between workers and their companies are broken: "Americans are realizing that the great American Job is gone" and "have forgotten any idea of career-long employment with a big company" (Neumark and Polsky, 1998).

Have the labour markets of industrialized countries really changed as dramatically as is often claimed? How do the popular images and stereotypes compare with the story told by statistical indicators of job flexibility and job stability? There have been numerous empirical studies on job stability, most of them focusing on the United States and the United Kingdom where this issue has attracted the most attention. While a number of researchers[1] have tried to compare job stability over time in one country, few have examined changes over time and across countries (except OECD, 1993 and 1997; ILO, 1996).

This article tries to shed some light on the actual changes that have occurred in the labour markets of the European Union, the United States and Japan, using stock and flow data from different sources, though primarily labour-force survey data up to 1999. It opens with a presentation of some evidence on job stability measured through employment tenure[2] — i.e. the length of time a worker has been continuously employed by the same employer — and separation rates. The level and structure of this indicator (by age, sex, industry, occupation, etc.) provide the main basis for empirical work, which is supplemented with other data on, inter alia, the proportion of temporary to total employment over time. The direct investigation of job stability over the past ten years does not support any alarmist view: while it shows that flexibility is indeed on the rise in many countries, it identifies no dramatic universal trend towards increased instability across the major industrialized economies. The second part of the article turns to the question of job security in an attempt to elucidate the apparent paradox of an increasing feeling of job insecurity at a time when the employment system shows more stability than is usually assumed.

[1] See, for example, Neumark's (2000) introductory chapter.

[2] Although "job tenure" is the most commonly used term for this concept, this article will refer to it as "employment tenure" to capture the idea that continuity of tenure is not broken by job changes within the same enterprise. The term "employee tenure", though recommended by the United States Bureau of Labor Statistics, excludes self-employment and is therefore too restrictive for the purposes of this article.

Evaluating job stability

What do employment-tenure data tell us about job stability?

The findings, tables and figures presented below are based on an exploitation of Eurostat data, supplemented by national aggregate data from Japan and the United States (for details on data and sources, see Auer, Cazes and Spiezia, 2001). Average tenures and the distribution of employment by class of tenure give a broad overview of patterns of job stability across countries and over time. Table 1 presents average tenure in most of the European Union countries,[3] the United States and Japan. In 1998, average employment tenure for the 16 countries was 10.5 years. The United States stands out as the country with the shortest tenure (6.6 years on average), followed by the United Kingdom, Denmark and the Netherlands, with average tenures under 10 years. The longest average tenures are found in Greece, Italy and Sweden, followed closely by Belgium, Japan and Portugal. Germany is slightly below the overall average of 10.5 years, as are Ireland and Spain. But cross-country differences are more pronounced in the distribution of employment across tenure classes, especially at the two extremes (see table 2): the proportion of workers with tenures under one year is particularly high — over 20 per cent — in the United States, Spain and Denmark; it is particularly low — less than 10 per cent — in Japan, Greece and Italy.[4]

Figure 1 shows that the countries with a low percentage of workers with tenures of less than one year are also those characterized by a high percentage of workers with long tenures. This distributional pattern shows up in Japan, Greece, Italy and Belgium, for example. Conversely, countries with a high percentage of workers with short tenures are also those with the lowest proportions of workers with longer tenures (e.g. the United Kingdom and the United States, but also Denmark).[5]

Changes over time

The inter-country differences seem to be consistent over time; OECD studies (1993, 1996) have already found significant differences in employment tenure between North America, on the one hand, and most European countries and Japan, on the other. More recently, the OECD (1997) confirmed the heterogeneity between countries, with Japan and most European countries still characterized by considerably longer tenures than the United States.

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[3] Data for Austria are excluded because they are unreliable.

[4] A more refined analysis shows that there are also significant differences in the proportion of workers with 20 or more years of tenure between, say, the United Kingdom or the United States (11.5 and 9 per cent respectively for 1998) and Greece, France, Sweden or Italy (more than 22 per cent).

[5] Average tenure by age group over the period 1992-99 shows declines in the younger age group (15-24) which are typically offset by increases in the other age groups. However, in some countries — most notably Ireland, but also Finland — tenure declined across all age groups.

Table 1. Average tenure (years)

Country	1992	1995	1998
Belgium	11.0	11.3	11.6
Denmark	8.8	8.5	8.5
Finland	…	10.7	10.6
France	10.4	10.7	11.3
Germany	10.7	10.0	10.4
Greece	13.5	13.4	13.2
Ireland	11.1	10.8	10.1
Italy	11.9	12.1	12.1
Japan	10.9	11.3	11.6
Luxembourg	10.1	10.6	11.2
Netherlands	8.9	9.1	9.4
Portugal	11.1	12.3	11.6
Spain	9.9	9.9	10.0
Sweden	…	10.6	11.9
United Kingdom	8.1	8.2	8.2
United States	6.7	6.7*	6.6
Average	10.2	10.4	10.5

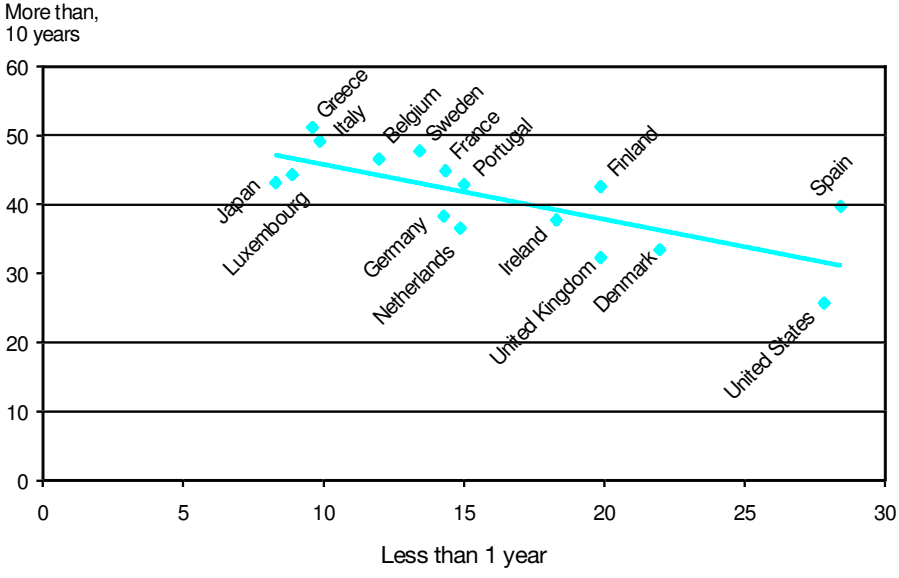
* Data refer to 1996.

Table 2. Distribution of employment by class of tenure (%)

Employment tenure	Under 1 year			10 years and over		
	1991	1995	1998	1991	1995	1998
Belgium	…	11.6	12.0	…	43.6	46.5
Denmark	…	25.1	22.0	…	29.1	33.5
Finland	11.9	17.6	19.9	34.2	39.6	42.5
France	15.7	15.0	14.3	41.4	42.0	45.0
Germany*	12.8	16.1	14.3	41.2	35.4	38.3
Greece	…	12.6	9.6	…	39.9	51.2
Ireland	…	17.8	18.3	…	33.1	37.7
Italy	…	8.5	9.9	…	45.6	49.2
Japan	9.8	7.6	8.3	42.9	42.9	43.2
Luxembourg	…	11.4	8.9	…	37.8	44.2
Netherlands	24.0	16.3	14.9	26.2	31.7	36.5
Portugal	…	13.4	15.0	…	41.6	43.0
Spain	23.9	35.5	28.4	39.7	34.2	39.8
Sweden	…	14.8	13.4	…	39.7	47.8
United Kingdom	18.6	19.6	19.9	28.9	26.7	32.3
United States**	28.8	26.0	27.8	26.6	25.8	25.8
Average	18.2	16.8	16.1	35.1	36.8	41.0
Standard deviation	6.8	7.1	6.2	7.1	6.2	6.8

* Data refer to 1990 instead of 1991. ** Data refer to 1996 instead of 1995.

Figure 1. Distribution of employment by class of tenure (%), 1998



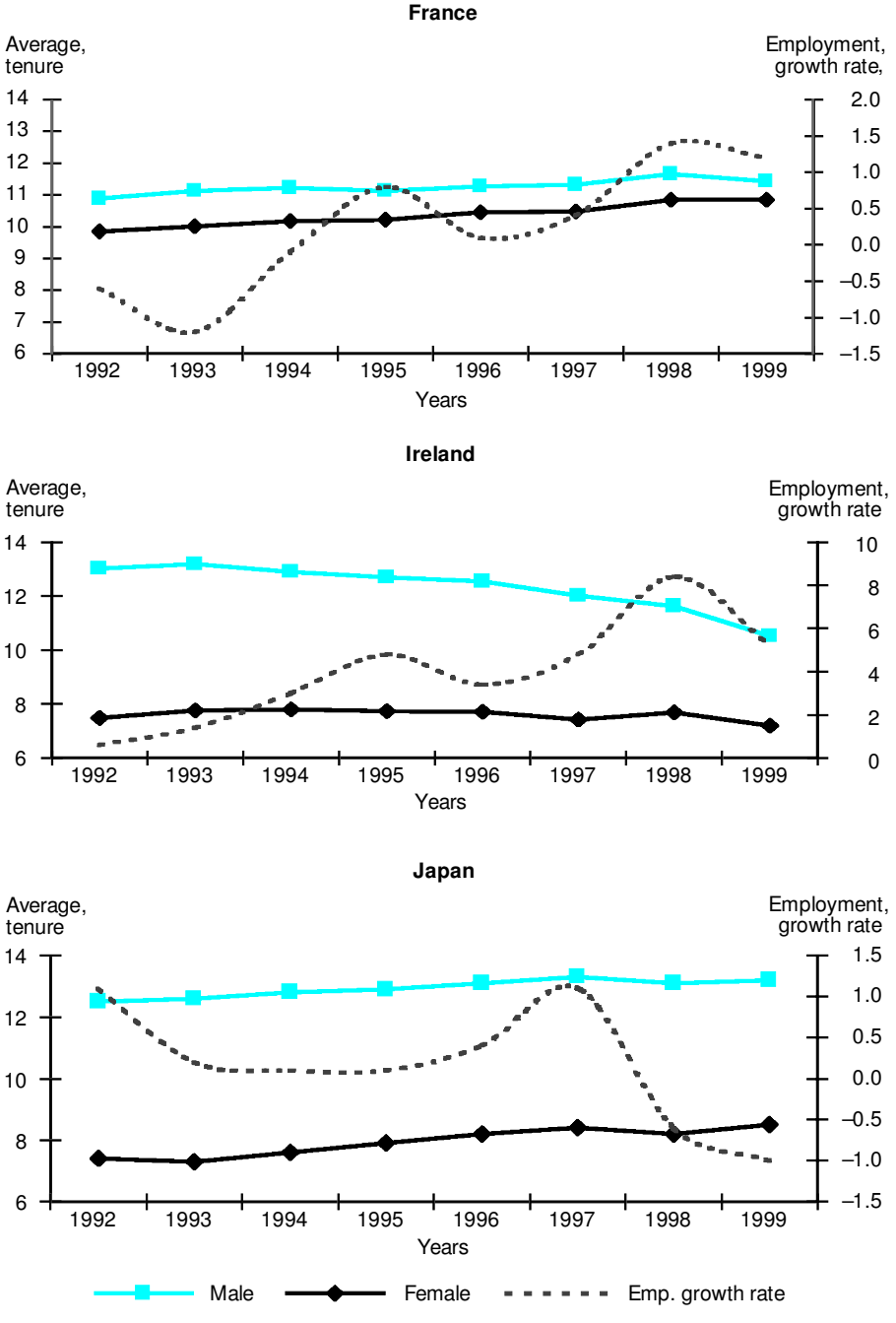
The analysis of changes in average employment tenure over time provides information on long-term or overall job stability as it emphasizes the stable part of the labour market.[6] But averages arguably fail to capture labour-market changes in the event of increasing polarization (e.g. more workers in secure employment *and* more workers in short-term jobs). It is therefore important to consider both median tenure and distribution as well. The distribution of employment by class of tenure shows some variation over the period 1991-98, especially for the Netherlands and Spain. In the Netherlands, the proportion of short-tenure workers (less than one year) decreased sharply over the three periods; this decline was symmetrically reflected in an increase of the proportion of long-tenure workers. In Spain, the percentage of short-tenure workers peaked in 1995 and declined thereafter (see table 2).

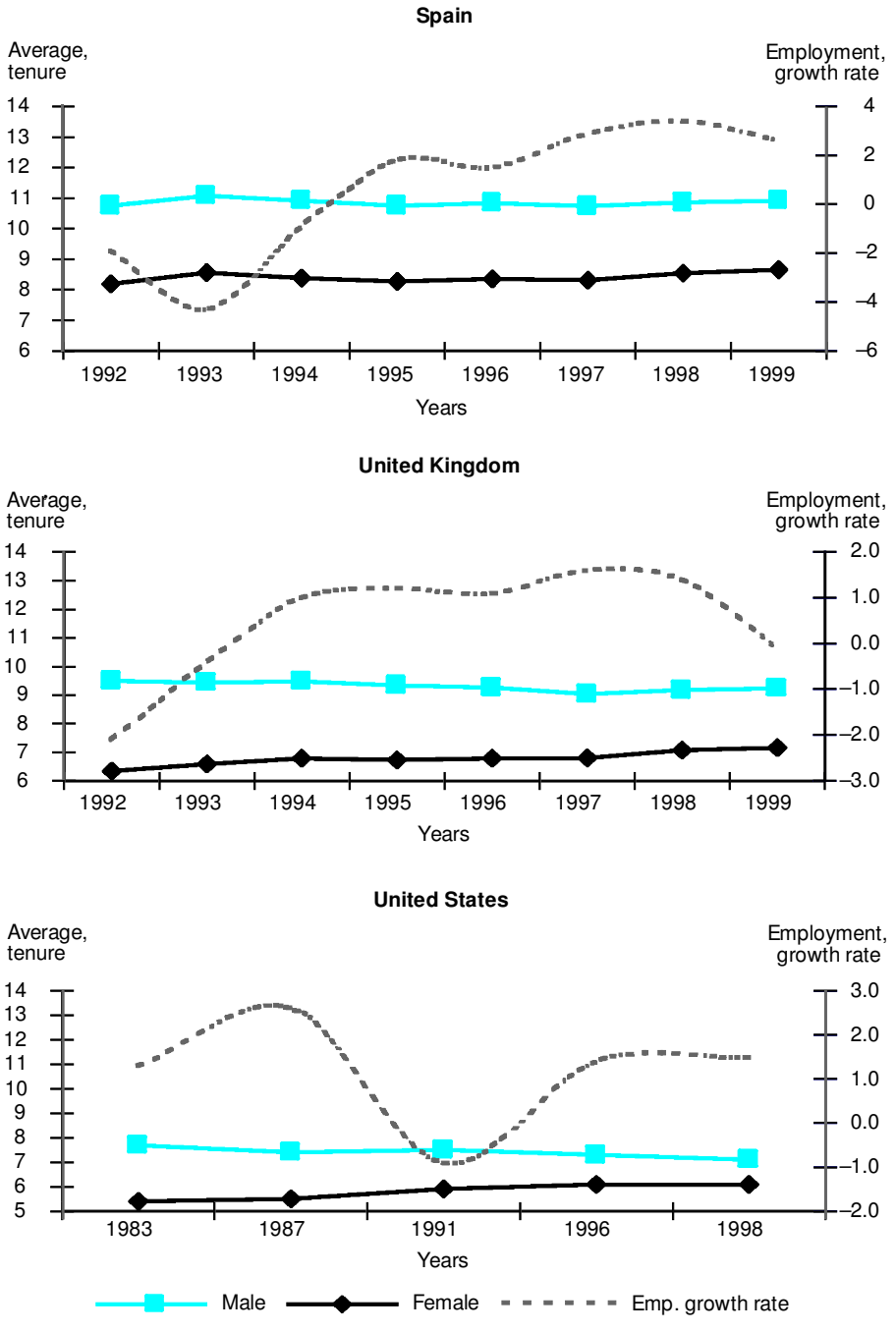
Country trends in average tenure over the period 1992-99 are shown in figure 2 for both sexes. Contrary to the widespread assumption of a radical labour-market shift towards less stability and more (numerical) flexibility, this investigation of employment tenure over the past decade does not show any universal trend towards increased labour-market instability in the major industrialized economies. The relative stability of employment tenure in most European countries is confirmed by an analysis of median tenure.

There has been little change for men and a lengthening of women's tenure, resulting in general stability or a slight increase of average tenure in all

[6] Because long-term jobs will be over-represented in average tenure.

Figure 2. Average employment tenure over time, by sex





Source for employment growth rates: OECD, 1999a.

the countries under review but one: Ireland, where even overall average tenure has declined significantly (see table 1 and figure 2). Indeed, the patterns tend to differ between men and women. In almost all countries, average tenure is shorter for women than it is for men, except in Portugal and in the Scandinavian countries where the two are about the same. Female tenure, however, generally increased over the period. This certainly reflects the changing career patterns of women, including their higher labour-force participation rates and their growing access to more skilled employment which, in turn, entail longer careers and a trend towards stabilization of jobs, even if they are part-time. For this reason, empirical analysis of long-term trends in employment tenure has commonly focused on male tenure, which is less likely to be influenced by such changes. As mentioned, however, even average male tenures remained broadly stable or increased in most countries. They declined slightly in Germany, Denmark, Portugal (from 1993), the United States and (lately) Finland. In Ireland, the shortening of average employment tenure since 1993 is quite marked. In Japan, average employment tenure increased over the 1980s and the 1990s, for both men and women.

These patterns have to be analysed more carefully, however, because aggregate trends in employment tenure may also reflect changes in the demographic composition of the labour force and cyclical variations. Average tenure is indeed highly dependent on the age structure of the working population: workers change jobs more often when they are young — either because they want to accumulate different experiences and get promotions by changing jobs or because they are a target for dismissals. As a result, a country with a relatively young population (such as Ireland) will exhibit shorter average tenures than one with an ageing population (such as Japan). The same phenomenon occurs over time: given that older workers have longer tenure on average, an ageing population could be masking a shift towards less secure jobs. In order to take account of this effect, average tenure was broken down into two components: one reflecting variation due to changes in age distribution and another showing the variation that would have occurred in the absence of demographic change (see Auer, Cazes and Spiezia, 2001). After controlling for age, it turns out that eight of the 14 European countries in the sample show some reduction in average tenure. In Belgium, for example, the increase in average tenure seems mainly due to the "mechanical" effect of population ageing. In Ireland, by contrast, the shortening of tenure is to a much greater extent explained by other variables, such as strong employment growth, even though demographic composition (many young people) also had an effect.

The relevance of controlling for age, however, remains open to question because age is a component of the long-term changes that occur in the labour market as a matter of course. In the case of the United States, for example, male median tenure declined slightly to 3.8 years in 1998, down from 4.0-4.1 in the previous four surveys, *despite the ageing of the workforce*.[7]

[7] Information supplied by the United States Bureau of Labor Statistics.

How does average tenure react to the economic cycle? It could be assumed to increase in upturns — since firms are more inclined to offer stable jobs in times of economic buoyancy — and to decrease in periods of recession as people are laid off and general economic uncertainty induces firms to increase the flexibility of their labour force. As shown by the graphs in figure 2, however, employment tenure behaves counter-cyclically: it decreases when employment growth is strong and increases when job creation slackens. The employment tenure data considered here relate to people in employment at the time of the survey, so the data obviously represent only the time they have spent in the job so far, i.e. elapsed tenure rather than completed tenure. However, looking at the distribution of tenure within a group of workers, it is clear that the hiring rate — i.e. the proportion of people arriving with a zero tenure — matters as much as the separation rate. This implies that changes in hiring and firing do affect the aggregate distribution of employment tenure, which will therefore depend inter alia on the business cycle. In fact, research shows that flows in and out of employment tend to be counter-cyclical, so average employment tenure declines in upswings and increases in downturns (ILO, 1996).

This counter-cyclical behaviour can be explained by different effects. When economic growth and employment recover, more people are hired; this mechanically has the effect of reducing tenure as newly hired labour comes in with zero tenure. Voluntary quits also increase because workers are offered better opportunities and change jobs. These two factors tend to *shorten* average employment tenure. But at the same time lay-offs are reduced, which has the opposite effect of *lengthening* tenure. So the resulting overall effect will depend on the quit rate and the lay-off rate: typically, the negative impact of voluntary quits offsets the positive effect of reduced lay-offs, thus generating an overall increase in the number of separations and a decline in length of tenure during economic upswings. The opposite happens in a recession: average employment tenure increases because the reduction in voluntary quits offsets the increase in lay-offs. However, the picture becomes quite complicated if the distribution of lay-offs by tenure is considered as well. [8] Voluntary quits usually concern workers with shorter tenures. So an increase of voluntary

[8] Consider this example: if, in a workforce of ten, five workers have a tenure of ten years and five a tenure of five years, average tenure is 7.5 years (75 years /10). If two workers with five years' tenure leave, average tenure increases to around eight years (65/8); if two with ten years' tenure leave, average tenure declines to below seven years if all things remain equal. If two people are hired, average tenure (at the moment of hiring) goes down to 6.4 years (75/12) if all else remains equal. In an economy, however, those leaving one firm most probably start a new job in another firm (their tenure down to zero) and the effects might cancel each other out: in the example where two workers with five years' tenure leave and two come in, average tenure would be 6.5 years instead of eight years. In the second example (two with ten years' seniority leaving), average tenure would even be down to 5.5 years if there were two new hires. However, tenure data does not exactly reflect this: labour-force surveys are sample surveys usually with different methods of rotating samples; depending on this, a larger or smaller part of the sample remains the same and might therefore underestimate recent job changes.

quits would result in lengthening average tenure for those remaining. However, those quitting voluntarily also go for new jobs and come in as newly hired labour, thereby shortening average tenure. For dismissals, labour-market institutions have to be taken into account. For example, while firms usually apply an explicit or implicit rule of seniority (last in, first out), early retirement rules reverse this since it is then the older staff with long tenures who will leave first; this has a shortening effect on average tenure. Generally speaking, a labour market characterized by high mobility exhibits shorter average tenure than a more static one, and a high rate of job creation has a shortening effect on average tenure.

Figure 2 clearly shows that counter-cyclical effect, at least for male tenure, in almost all countries. As a matter of fact, the decline in employment tenure observed in recent years may mainly reflect the economic recovery that has taken place in some countries, such as the United States, rather than a structural shift towards increased job instability. In Ireland, employment tenure has been decreasing since 1993, clearly in an inverse relationship to the country's strong employment creation. To some extent, the recent slight shortening of employment tenure in Portugal and Denmark also coincides with employment growth. Similarly, an increase in employment tenure, in other European countries, could be the result of economic slack and hide a medium-term decline in job stability.

What is noteworthy, however, is that the counter-cyclical behaviour of average employment tenure suggests labour markets are driven more by the supply side (expectations of workers) than the demand side (expectations of firms). Firms might indeed look for exactly the opposite: more job stability for their existing workforce in economic upturns and tight labour markets, and more voluntary exits in recessions and slack labour markets.

Tenure profiles of different categories of workers

Table 3 presents average employment tenure by sex, age group, sector and educational attainment for 1998. As already highlighted in comparing unweighted averages across countries, men have longer tenure than women (the difference being particularly significant in some countries such as Ireland, Japan or the Netherlands). Tenure rises sharply with age. There is also much more variation across countries for workers over 45: in the United States, average employment tenure is about 11 years for this age group, whereas it is twice as long in Greece, Italy and Belgium (see table 3). An econometric analysis was carried out for each country to establish whether tenure has changed for some age groups. The estimations indicate that the tenure of young workers (age group 15-24) has declined in all the countries considered except Portugal (Auer, Cazes and Spiezia, 2001). These findings, however, do not imply a generalized increase in job instability for young workers, though they certainly reflect increased segmentation of the labour market. One key issue here is whether young people have to queue up in tem-

porary jobs, while waiting for a permanent job, or whether they are "trapped" in insecure, secondary jobs with no bridge to stable employment. In very general terms, young people appear to be primarily confronting a labour-market entry problem — i.e. they are queuing — since age is by definition a temporary characteristic. It is likely, therefore, that they are only "temporarily outsiders" to the stable segment of the labour market (see below), even though their stay on the outside may be prolonged.

Employment tenure also varies considerably across industries: the longest tenures are found in electricity, gas and water supply and in public administration, and the shortest, in hotels and restaurants. Wholesale and retail trade (which tend to employ a large number of young people) are also characterized by short average tenures (see table 3). Generally, higher-skilled white-collar occupations, such as "legislators, senior officials and managers" have the longest employment tenures, while semi-skilled and unskilled manual jobs as well as lower-skilled white-collar occupations (e.g. service workers, sales workers) have shorter tenures. Interestingly, the degree of dispersion of tenure by industry and occupation is rather similar across countries. Moreover, the distribution of tenure by industry and occupation generally shows little change between 1996 and 1998.[9]

Average employment tenures by educational attainment show that only in four of the 16 countries considered do workers with high educational attainments have longer tenures than low-education workers (table 3). The reverse applies to the majority of the countries considered. This finding may seem surprising, as less qualified people might have been expected to have less job stability. The finding that workers with low educational attainments have longer tenure is confirmed by recent empirical research based on a disaggregated analysis of the changes in employment tenure. For example, Burgess and Rees (1998) found that post-compulsory educational qualifications in Britain were associated with shorter employment tenures for both men and women. The figures in table 3 show few differences between those with medium education and those with higher education. However, a study of the countries of the European Union reveals that, controlling for differences in sex and age distributions, individuals with the lowest level of education have the shortest employment tenure, while those with an intermediate level of education have the longest (OECD, 1997).

The data on the distribution of tenure by firm size are somewhat limited,[10] but general findings suggest a rather consistent pattern across countries. Although the influence of firm size is not monotonic, the employees of larger enterprises in the European Union (50 or more employees) have significantly longer employment tenure than do those in enterprises with fewer

[9] The same goes for 1999, according to the updates available for European countries.

[10] The breakdown used by Eurostat includes categories which are not exclusive such as "11-19 persons" and "do not know but more than 10 persons", so data are difficult to interpret systematically.

Table 3. Average tenure by gender, age, sector and education, 1998

	Belgium	Denmark	Finland	France	Germany	Greece	Ireland
Total	11.6	8.5	10.6	11.3	10.4	13.2	10.1
Men	12.2	9.2	11.1	11.7	11.3	13.8	11.6
Women	10.8	7.7	10.0	10.8	9.2	12.2	7.7
Age							
15-24 years	1.7	1.5	1.2	1.5	2.3	2.2	1.9
25-44 years	8.9	6.0	7.6	8.6	7.7	8.7	8.2
45 or more years	20.3	15.3	16.9	18.3	17.0	22.7	18.8
Sector*							
Mining and quarrying	10.7	8.1	8.2	14.6	16.0	12.5	13.3
Manufacturing	11.8	8.5	11.5	12.2	11.6	10.4	8.4
Electricity, gas and water supply	14.3	11.8	15.7	16.0	14.2	13.9	18.5
Construction	9.3	8.5	9.0	10.2	8.7	12.0	7.9
Wholesale and retail trade	10.6	7.1	7.9	9.1	9.1	9.8	8.1
Hotels and restaurants	6.8	3.6	4.7	6.3	6.3	7.7	6.0
Transport, storage and communication	12.9	9.4	13.0	12.9	12.2	13.3	11.4
Financial intermediation	13.3	9.9	15.4	15.0	11.9	11.6	10.0
Real estate, renting and business activities	7.9	7.4	8.1	8.3	7.7	9.7	6.6
Public administration	14.3	12.5	13.0	14.5	13.3	14.1	16.0
Education	14.1	10.7	8.7	12.9	12.4	11.2	12.3
Health and social work	11.4	7.1	9.2	11.1	8.1	10.6	9.4
Other community, social and personal service activities	10.8	7.8	9.3	9.1	8.9	10.2	8.3
Education							
Low	13.3	7.6	13.4	12.4	…	17.1	…
Medium	11.1	8.7	9.7	11.2	…	9.3	…
High	10.6	9.0	9.7	10.0	…	10.8	…

Italy	Japan	Luxembourg	Netherlands	Portugal	Spain	Sweden	United Kingdom	United States	Average	Standard deviation
12.1	11.6	11.2	9.4	11.6	10.0	11.9	8.2	6.6	10.5	1.7
12.7	13.1	12.3	10.6	11.2	10.9	12.0	9.2	7.1	11.2	1.7
11.0	8.2	9.2	7.8	12.1	8.5	11.8	7.1	6.1	9.4	1.9
2.3	2.4	2.5	1.8	2.7	1.1	2.0	1.8	1.3	1.9	0.5
9.0	9.2	8.6	7.5	8.5	7.2	8.3	6.9	5.4	7.9	1.1
20.1	18.4	19.9	17.1	19.6	18.0	18.1	12.9	11.4	17.8	2.8
12.9	12.4	11.6	12.8	10.9	10.9	14.2	10.1	9.3	11.8	2.2
11.1	13.6	14.9	10.6	10.5	10.7	13.0	9.1	8.5	11.0	1.9
15.4	17.2	16.9	17.3	14.5	15.3	17.7	11.9	…	15.4	2.0
10.0	11.6	8.6	9.9	6.6	6.4	11.4	9.2	5.1	9.0	1.9
11.7	11.1	9.4	7.8	10.3	9.0	10.1	6.7	4.5	8.9	1.8
8.6	13.1	5.8	5.4	7.5	6.6	5.3	4.8	…	6.1	1.3
13.8	12.3	12.6	10.9	12.1	12.0	13.3	8.7	8.7	11.9	1.7
14.3	…	10.2	10.5	12.3	14.0	13.6	8.6	6.0	11.8	2.5
9.6	8.5	8.0	7.1	6.8	6.6	8.2	6.5	…	7.8	1.0
14.3	…	12.8	12.2	13.8	13.8	15.6	11.7	9.6	13.4	1.6
14.8	…	13.6	12.1	11.6	12.2	13.1	9.0	5.2	11.4	2.5
12.4	8.9	9.4	8.8	10.9	10.8	12.2	7.6	…	9.9	1.7
10.6	…	11.1	8.6	10.2	8.5	9.4	7.6	…	9.3	1.1
12.8	16.3	…	…	10.8	10.6	14.8	…	7.2	12.4	3.2
11.0	15.2	…	…	8.1	8.6	11.3	…	5.3	9.9	2.5
12.4	11.1	…	…	10.7	9.7	10.9	…	7.3	10.2	1.3

(a) Data for sector use the national classification systems and are regrouped to correspond approximately to NACE (Rev. 1) and ISCO-88. For details, see Auer, Cazes and Spiezia (2001).

* Agriculture, hunting, forestry and fishing have been excluded because data were not consistent over time.

than ten employees. In Japan, employment tenure clearly increases with enterprise size: from 9.6 years in enterprises with 10-99 employees to 11.1 years in enterprises with 100-999 employees and 14.8 years in enterprises with 1,000 or more employees in 1998 (Japan, 1999). Here also the findings of micro-economic research are consistent with those of aggregate analysis. A recent empirical analysis of employment tenure in (western) Germany found that employees stay on longer in larger enterprises and in production industries (Bellman, Bender and Hornsteiner, 2000). In another paper comparing employment tenure in the United Kingdom and Italy using micro-level data, Burgess, Pacelli and Rees (1997) also find that employment tenure increases with firm size. These authors suggest that the employees of larger firms are given more on-the-job training, hence their inclination to stay on longer in their jobs. Aside from the enterprise-size effect, the employees in service industries seem to accumulate less specific human capital than do those in the production industries.

The pattern of tenure by enterprise size may be partly explained by the fact that employment protection legislation (EPL) is less restrictive for very small firms, which therefore face fewer constraints on lay-offs. In fact, employment tenure correlates quite well with the degree of employment protection (see figure 3). Evidence from a sample of large corporations in the United States shows that average employment tenure and the percentage of employees with ten or more years of service actually increased in the 1990s. Even in large firms with shrinking employment, the odds that a worker would still be with the same employer five years later were higher than they were for the labour market as a whole. The analysis suggests that the impact of downsizing was still being borne by the most junior workers (Allen, Clark and Schieber, 1999). Here, the United States labour market seems to differ markedly from the European market, where provision for accompanying measures makes older workers the main targets of downsizing.

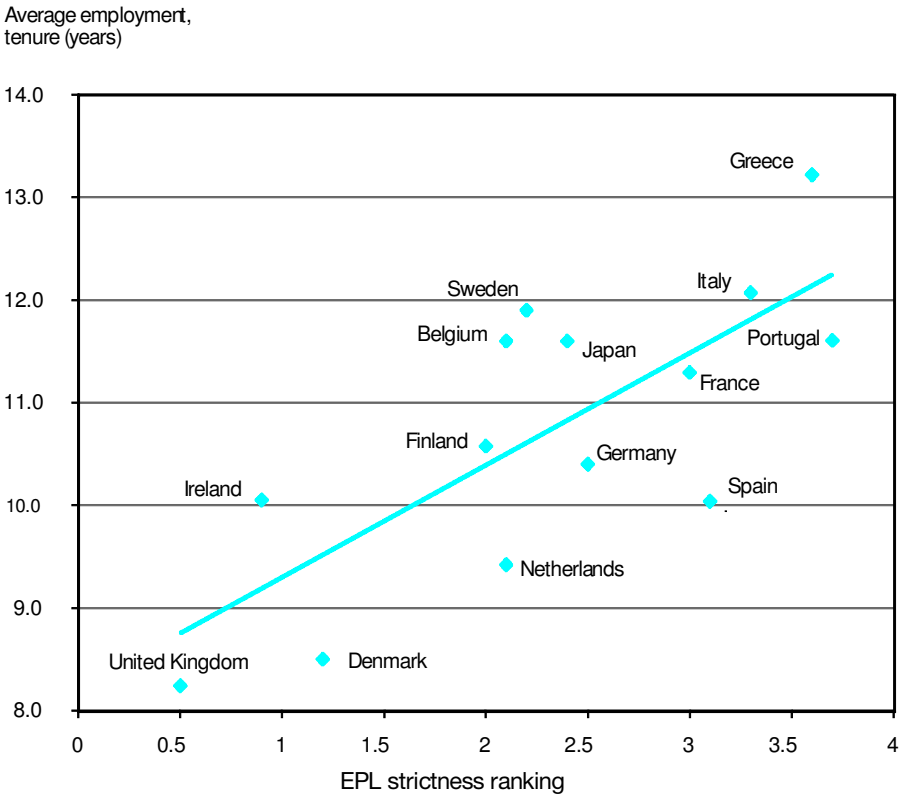
Retention rates and potential employment tenure

Other measures of the stability of the employer-employee match refer to the probability that an individual will still be with her/his current employer in the future and thus give some indication of how long that job will ultimately last.[11] To obtain such indicators it is necessary first to compute the so-called "retention rates"[12] and then to derive "potential employment tenure", i.e. the probability that an individual with a certain accumulated tenure will eventually attain a given employment tenure. Potential employment tenure is to job stability what life expectancy is to life duration. In other words, even if accumulated tenure is stable, eventual tenure could shorten if the probability

[11] Following the methodology developed by Hall (1982) and completed by Ureta (1992).

[12] The "n-year" retention rate is the probability that an individual will still be with his current employer "n" years later.

Figure 3. Average employment tenure and EPL, 1998



X axis: overall EPL strictness (OECD, 1999b).,
Y axis: Average employment tenure in years (Eurostat and national sources).

of keeping a job a certain number of additional years were to decline significantly over the given period.

Analyses generally suggest that job retention rates remained fairly stable over the 1980s and the early 1990s (OECD, 1997). However, the analysis of disaggregated retention rates by worker characteristics and job characteristics does reveal changes for some groups. In the United States in particular, retention rates have declined significantly among the youngest workers, notably for secondary-school dropouts and secondary-school graduates relative to university graduates, and for blacks relative to whites (Diebold, Neumark and Polsky, 1997; Marcotte, 1999). The OECD (1997) has found that, in most countries, retention rates increase from young through to prime-age workers and then decline as employees approach retirement (particularly in

Japan). The most significant changes in retention rates are recorded in respect of workers with the lowest educational level.

Over time, the pattern of potential tenure distribution also shows broad stability for many industrialized countries (ILO, 1996). Another striking finding of the same ILO study is the high and stable incidence of long-term jobs, especially among men. In France and Germany, around 60 per cent of male wage workers can expect to keep their jobs for more than 15 years, as against 45 per cent in Canada and 35 per cent in Australia. In the United States, 54 per cent of the workers were in jobs expected to last eight years or more — a proportion which remained stable from 1979 to 1991. Institutional regulation of employer-employee relationships, such as national labour legislation or seniority rules, is a possible explanation of the differences in long-term job attachment across countries. This, however, would imply that only tight protection against dismissal can induce firms to retain workers over the long term. Yet there are also good reasons (independently of regulations) for firms to engage in long-term commitments, including investment in human capital and the need for a committed and motivated workforce.

To sum up, the foregoing analysis of patterns of employment tenure confirms the results of most of the recent studies that have examined tenure data for evidence on job stability. Although their results are not completely consistent, these studies generally find little, if any, decline of job stability in the industrialized countries over the past two decades. While showing that in a number of countries some groups of workers — e.g. young workers or those with less education — experienced less job security than in the past, these analyses mostly indicate that there was no dramatic, systematic change in the duration of jobs over time.

Temporary jobs

Temporary jobs in the sense of the labour force surveys are usually defined as those jobs for which workers hold contracts with a specified time of expiry, e.g. a date, completion of a project, etc. They are short-term contracts concluded either directly by employers or through intermediation of temporary work agencies. These forms of contract have clear implications for employment tenure, as statistically evidenced by the strong correlation between the ratio of temporary to total employment and the incidence of employment tenure below one year (r2=0,7). This is hardly surprising as we expect all those on temporary contracts to be among those with low tenure. Also unsurprisingly, the same data on temporary work shows no correlation at all with the incidence of employment tenures of more than ten years. One might also assume that countries with high proportions of temporary employment have the lowest average tenures and vice versa. But there are countries with both high proportions of temporary employment and comparatively high average tenures (Finland, Sweden, Portugal and Greece) and countries with both small shares of temporary employment and low average tenures such as

the United Kingdom, Denmark and Ireland (see table 4). Similarly, to hold a permanent contract does not necessarily mean to have long tenure. For example, "permanent" contracts account for around 90 per cent of Danish employment but mobility is high and tenure comparatively short (see Madsen, 2001). In sum, the prevailing form of contract can prove a misleading indicator from which to make inferences regarding tenure.

Between 1985 and 1998 the share of temporary employment (fixed-term contracts and temporary agency work) increased considerably in several countries, most notably in Spain but also in Finland, the Netherlands, France and more lately in Portugal. But it is still small in Austria, Belgium, Ireland, Italy, Luxembourg and the United Kingdom (though measurement could be a problem in the last case because employment protection takes effect only after two years). Temporary employment accounts for less than 15 per cent of total employment in all countries except Finland, Portugal (lately) and Spain, the outsider with a share of more than 30 per cent. Data on the United States suggest its share of temporary employment is increasing — especially through temporary agency employment (see Osterman, 2001) — and the same goes for Japan with some increase in the number of "contract workers". In the European Union, temporary jobs are more likely to be held by women, though the overall gender gap is rather small (about two percentage points). There is often some overlap between temporary and part-time work: in 1998, while only 10 per cent of the men with a full-time job held a temporary contract, more than 30 per cent of male part-timers held this type of contract in the European Union. For women, the proportion was lower: only 15 per cent of female part-timers held a temporary contract. This seems to indicate that a part-time job is mostly a "regular" form of work for women (and mostly voluntary in the sense of the labour force surveys), while it is an exception for men, a large number of whom work part time on temporary contracts in the absence of regular full-time jobs. Temporary work operates as a way into employment for the unemployed, but also as an exit from employment into unemployment — precisely because of its temporary nature.

Broadly speaking, there has been a tendency towards significant deregulation of temporary contracts over the 1990s. In a number of countries (Belgium, Denmark, Germany, Italy, the Netherlands, Sweden), fixed-term contracts and/or contracts with temporary employment agencies can now be used in a wider range of situations than at the beginning of the 1990s. In Denmark and Sweden, all restrictions on the types of work for which agency employment is legal have been removed; and in Italy and Spain, temporary employment agencies can now contract for certain types of work, whereas such contracting was previously illegal in all circumstances. In Spain, fixed-term contracts were liberalized in the late 1980s, though some restrictions were recently re-imposed in response to the dramatic increase in their use.

While one cannot speak of an explosion in temporary work — including in the United States (see Osterman, 2001) — its growing share of total employment has certainly contributed to the view that the standard employ-

Table 4. Temporary workers (% of total employment)

Country	1985	1990	1994	1996	1997	1998
Austria	...	...	6.0	8.0	7.8	7.8
Belgium	6.9	5.3	5.1	5.9	6.3	7.8
Denmark	12.3	10.8	12.0	11.2	11.1	10.1
Finland	10.5	12.0*	16.5	17.3	17.1	17.7
France	4.7	10.5	11.0	12.6	13.1	13.9
Germany**	10.0	10.5	10.3	11.1	11.7	12.3
Greece	21.1	16.5	10.3	11.0	10.9	13.0
Ireland	7.3	8.5	9.5	9.2	9.4	...
Italy	4.8	5.2	7.3	7.5	8.2	8.6
Luxembourg	4.7	3.4	2.9	2.6	2.1	2.9
Netherlands	7.5	7.6	10.9	12.0	11.4	12.7
Portugal	14.4	18.3	9.4	10.6	12.2	17.3
Spain	15.6	29.8	33.7	33.6	33.6	32.9
Sweden	...	10.0	12.5	11.8	12.1	12.9
United Kingdom	7.0	5.2	6.5	7.1	7.4	7.1

*1991; ** 1994 onwards includes new Länder.
Source: European Commission, 1999.

ment relationship is a thing of the past. But again, this point relates to stocks of temporary workers, not to flows in and out of employment of workers with temporary contracts. The only evidence available on such flows is anecdotal: in the late 1980s in France, when annual stocks of temporary workers were around 4 per cent, 70 per cent of all the workers hired by firms with more than 50 workers initially had a temporary contract. In Germany, stock and flows then stood in a relation of 5.6 per cent to 43 per cent. Also exit (outflow) from employment is often due to the expiry of fixed-term contracts: in 1987-88, 38.5 per cent of all jobs in France were terminated because of the expiry of a temporary contract; the proportion was 30 per cent in Germany (Auer and Büchtemann, 1990). More recent figures continue to show high values for in- and out-flows (see Galtier and Gautié, 2001). Even modest growth in the *stock* of temporary contracts suggests that in many countries such contracts may even be playing a larger role in the overall dynamics of the labour market.

Being employed on a fixed-term contract at some point in the course of a career is therefore rather the rule than the exception, hence, perhaps, the image of a very volatile labour market. And, indeed, it seems that mobility and flexibility are largely concentrated in that contractual segment of the labour market (especially among young people) where it is not uncommon to have a "revolving door" effect between temporary jobs and unemployment. However, fixed-term contracts can also be shown to offer an important gateway into the employment system generally.

Job security vs job stability

How to measure job security?

Job security is difficult to measure directly, so data on employment tenure and contingent employment have very often been used as proxies for examining this issue. But since average employment tenure is determined by both voluntary and involuntary turnover, it makes an ambiguous indicator of security per se. Besides, ordinary workers do not typically know about trends in average employment tenure and such analytical indicators are not widely reported in the media. So whilst job stability is indeed linked to job security, it is not perceived in the same way as the more dramatic stories of major job losses, continuous downsizing and the ever-increasing contingency of jobs, which feed perceptions of deteriorating job security.[13] The "anxiety" conveyed in the media that job security has declined may therefore stem from labour-market changes that are, in part, unrelated to overall employment tenure.

OECD (1997) evaluates the evolution of job security over the past 20 years, using both measures of workers' perceptions and measures of employment tenure and retention rates. Workers' perceptions of their job insecurity are determined by a complex set of subjective and objective considerations that are difficult to quantify precisely. Among the various factors, however, general macroeconomic conditions and the perceived risk of losing one's job are certainly determinant. Data that reflect the reasons for job changes (layoffs, plant closures, or voluntary quits) are therefore important to make proper inferences about job security: workers who quit voluntarily are likely to improve their well-being, whereas those who are dismissed are more likely to end up worse off. Thus, if the proportion of the latter rises, workers may generally feel less secure (see Dominitz and Manski, 1996). Ideally, job security should thus be measured by indicators of economy-wide job losses and by the difficulty of finding employment after job loss or the difficulty of finding a first job.

Some evidence on job security

Outflows from employment

As mentioned above, average employment tenure emphasizes the evolution of stable jobs, while short-term jobs or labour-market "churning" are best captured by separation rates (the rate at which individuals leave or are

[13] As shown by Neumark and Polsky (1998) for the United States: "Beginning in the 1980s and continuing into the early 1990s, the media have kept up a steady drumbeat of stories describing declining job stability and job security in the U.S. economy. This theme began to appear in 1983 and perhaps reached its culmination in the 1996 *New York Times* series "The Downsizing of America". *Time* (Nov. 22, 1993) may have best summed up the prevailing media view, suggesting that 'Americans are realizing that the great American Job is gone', and that we 'forget any idea of career-long employment with a big company'" (1998, p. 78). The story of the big transformation of work and downsizing is also ubiquitous throughout most of the European press.

dismissed by their employer).[14] Separation rates can be broken down into moves from employment to non-employment (mainly involuntary separations) and moves from employment to employment (mainly voluntary). As with employment tenure, separation rates vary with the economic cycle: they decline in recessions and increase in upswings, despite the opposite behaviour of lay-offs and early retirements. Figure 4 presents the evolution of annual separation rates by destination over the period 1992-1999, broken down into employment to unemployment moves (E to U) and employment to inactivity moves (E to OLF).[15]

These two flows are generally counter-cyclical. The incidence of employment-to-unemployment moves declined in most countries after 1994 (except in the United Kingdom and Spain where the decline set in earlier). Only in Greece have outflows from employment to unemployment increased with some regularity, reflecting a deterioration in labour-market conditions. Evidence for the United States shows no increase in one-year separation rates over the period 1983-1995 (Gottschalk and Moffitt, 1999). However, there were modest increases in the rate of involuntary separations, which were more marked for older and longer-tenured workers (Polsky, 1996). A similar finding is reported by Valletta and O'Toole (1997) who point to a small (but statistically significant) upward trend in the rate of dismissals throughout the 1980s and early 1990s. This trend indicates that, for any given unemployment rate, the number of jobs that end in dismissal and generate a spell of unemployment has been rising for the past 20 years.

A comparison of employment-to-inactivity flows with employment-to-unemployment flows yields interesting results. First, the rate of outflow to inactivity generally fluctuates smoothly with the business cycle, except in Ireland, Spain and the United Kingdom, where it is acyclical and stable. In Denmark, it seems to follow the same downward trend as the rate of outflow to unemployment. Second, the rate of employment-to-inactivity moves is higher than that of moves to unemployment in Italy, the Netherlands, Denmark and the United Kingdom, while the opposite holds true of France, Ireland and Spain; in Germany, Greece, Finland and Portugal, the two curves are almost parallel (figure 4).

This could be due to differences in accompanying measures. In the Netherlands, for example, flows into inactivity could be due to the existence of an invalidity scheme which, for labour-market purposes, obviously serves as an equivalent to the early retirement mechanisms that operate in other countries, such as Denmark. While a relatively large share of employment-to-

[14] The separation rate is the ratio of the total number of workers having left or lost their job during a given period (a month or a year) to the total number of workers (at the beginning of the period or on average over the period).

[15] Unfortunately, data on job-to-job moves were not available. Given here, therefore, is only the ratio of the total outflows from employment to non-employment during a year to the total number of workers at the beginning of the period.

inactivity flows may thus reflect a high degree of protection for dismissed (older) workers, in some countries it could simply mean that the unemployment system does not cover certain categories of workers. However, more research would be needed to verify such hypotheses.

To sum up, outflows from employment to unemployment (job losers) or to inactivity (mainly early retirement or discouraged people) appear to have declined rather than increased in the countries under review. For Japan, no breakdown of outflows was available, which explains why figure 5 shows only the trends in the total separation rate (i.e. total outflows from employment, including moves to unemployment, inactivity and *to other jobs*). This indicates a rising trend towards more separations. However, since the aggregate separation rate also reflects job-to-job moves, it may mainly reflect increasing labour turnover in Japan. There is some evidence that the hiring of mid-career workers — a comparatively rare occurrence in the Japanese employment system — seems to have increased and now accounts for a proportion of the job-to-job moves (Passet, 2001).

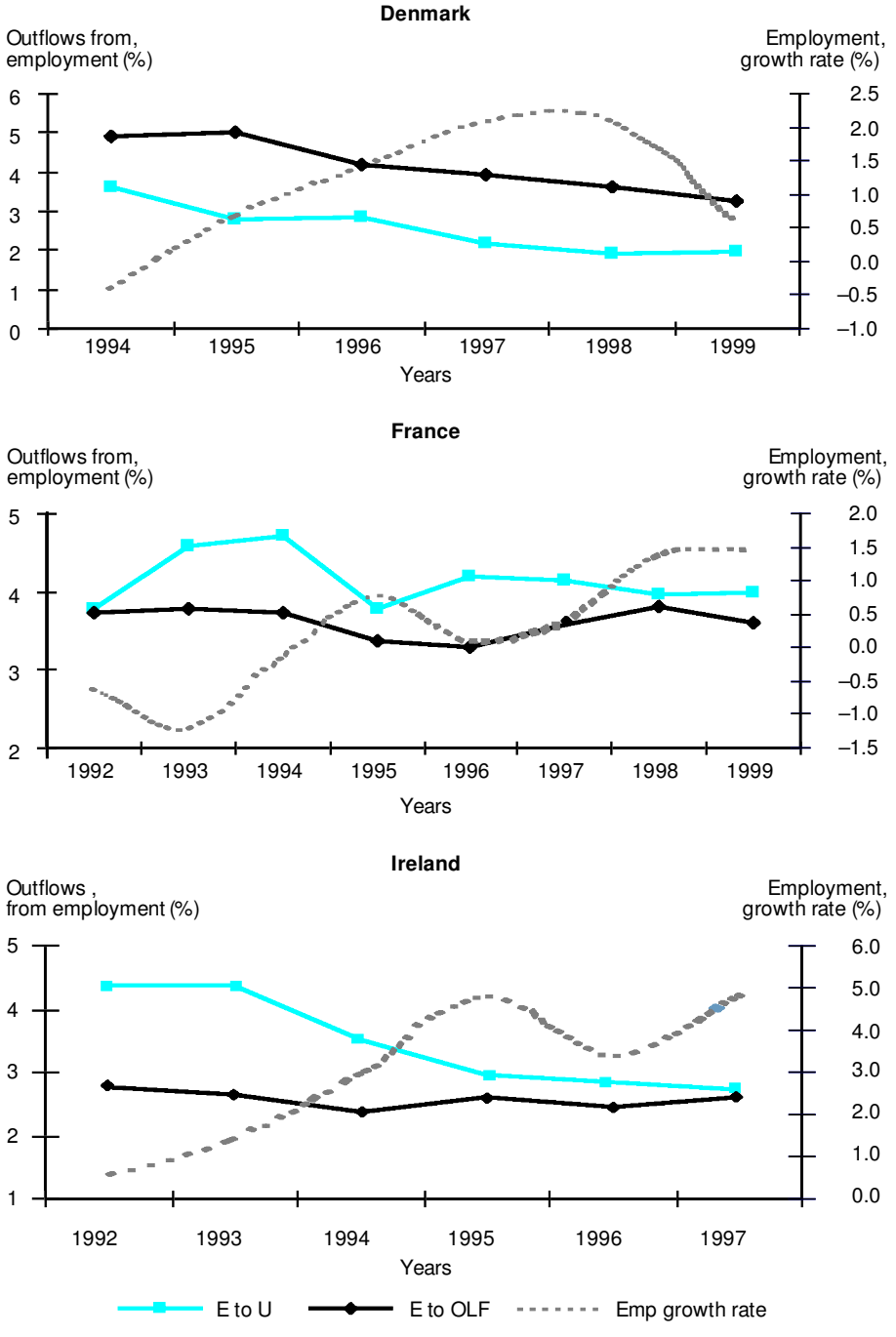
Short-term instability

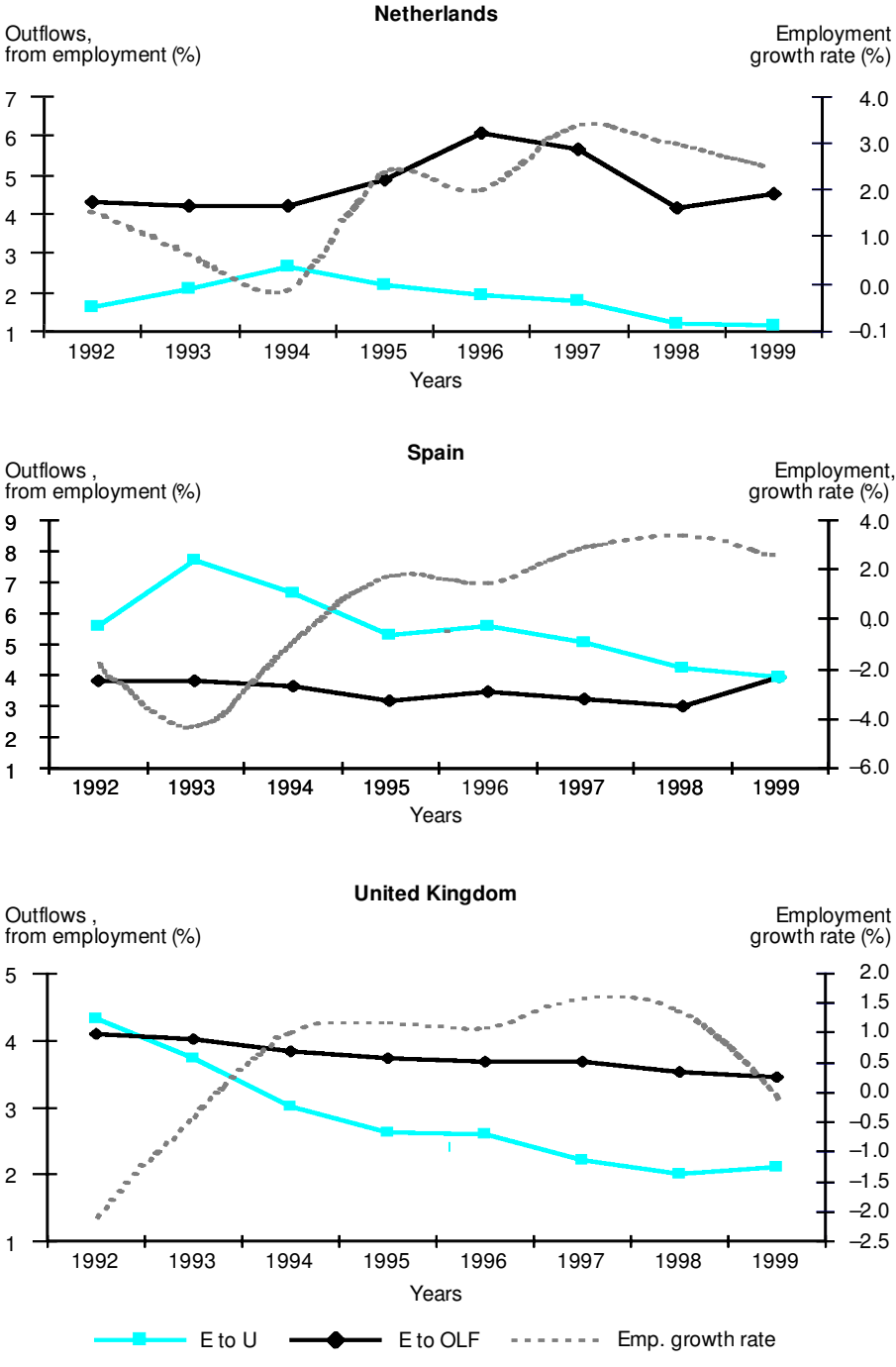
The initial employment relationship of a new labour-market entrant or a worker moving from one job to another is an important step towards long-term integration in a stable job. The extent to which first jobs and re-entry jobs have become more insecure can be assessed by examining both the incidence of short tenure and labour turnover and its evolution over time.

Following the work of Gregg and Wadsworth (1995) and OECD (1997), the failure rate of new job matches can be calculated for the interval between one and two years of tenure. This measure is based on a comparison of the number of workers with less than one year's tenure relative to the number of those with one-to-two years' tenure.[16] Table 5 presents the "one-to-two years" rates for most of the countries under review. Contrary to what might be expected, these rates do not show much cross-country variation at around 30-40 per cent in most of the countries under review in 1998. The Netherlands and Spain are the exceptions with rates of 10.8 and 63.1 per cent, respectively, in 1998. The interpretation of the rate is straightforward: it means that in Spain, for example, 63.1 per cent of the workers with less than one year's tenure in 1998 failed to stay longer than two years within the same firm. This figure is consistent with Spain's comparatively high percentage of workers with less than six months' tenure (20.7 per cent in 1998) and its high level of temporary work. Since Spain also shows tenure rates which are only slightly below the European average of 10.5 years, one could argue that there seems to be a clear segmentation of the labour market into a stable segment and a

[16] This index should be interpreted with caution, as it is subject to considerable measurement error. Moreover, it does not capture a number of separations that occur during the first year. Yet, it gives a rough assessment of short-term labour turnover.

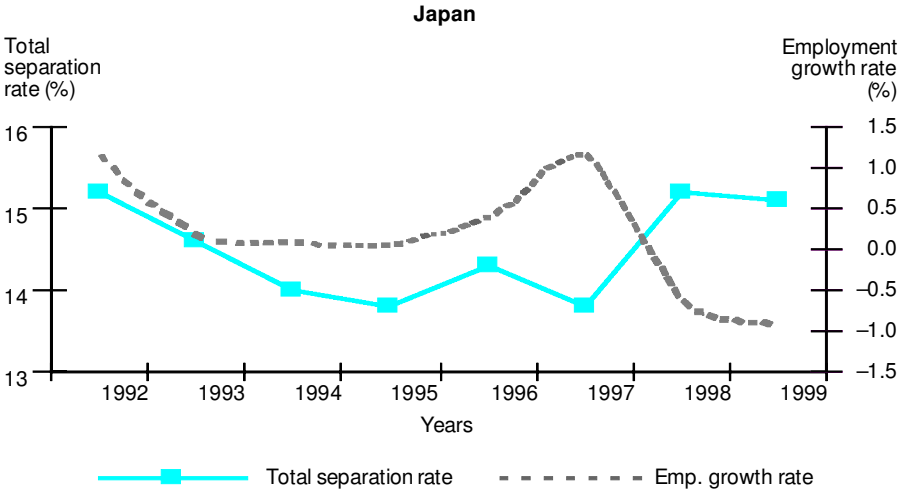
Figure 4. Separation rates by destination, 1992-1999





Sources for employment growth rate: OECD, 1999a.

Figure 5. Annual separation rate, 1992-1999



Source for employment growth rate: OECD, 1999a.

volatile one. In the Netherlands, by contrast, the volatility of the employment systems seems to have decreased and only 11 per cent of those with less than a year's tenure failed to stay beyond the two years' threshold.

Table 5 presents trends in the failure rates of new job matches from the mid-1980s through the 1990s for the European countries and the United States. In Belgium, Finland, Germany and Portugal, the rates have increased slightly, whereas the United Kingdom has experienced a slight decline in its rate since 1990. In Spain, the rate rose sharply from a low of 15.6 per cent in the mid-1980s — corresponding to a low of 15.6 per cent in the proportion of temporary total employment in 1983 — to 85 per cent in 1995; in 1998, it reverted to its 1990 level. This was still by far the highest of the European rates and was roughly equal to the rates of the United States which had increased slightly during the 1990s. Between 1995 and 1998, Denmark's rate displays a remarkable fall, corresponding to the improvement of its labour market.

However, it is difficult to draw firm conclusions about these trends because data on short-term turnover are highly sensitive to the business cycle, and not enough information is available to correct for this effect. Yet the data presented in table 5 suggest that many job matches "fail" very early. Although there is no evidence of a general increase in the incidence of "failures" over time, it may well be that the high proportion of job matches that fail early affects individual perceptions of insecurity.

Table 5. Measures of labour turnover

Country	Employment tenure % under 6 months	Failure rates of new job matches from 1 year to 2 years (a)			
	1998	Mid-1980s	1990	1995	1998
Belgium	6.9	...	...	28.4	30.8
Denmark	12.6	...	...	51.2	38.3
Finland	11.9	46.2	31.5	45.1	47.8
France	8.7	...	...	41.6	38.2
Germany	7.5	25	24	27.2	28.9
Ireland	8.5	...	...	30.4	29.1
Italy	5.8	...	...	45.9	22
Netherlands	9.4	...	...	26.1	10.8
Portugal	8.6	...	...	36.4	39.9
Spain	20.7	15.6	62.4	85	63.1
Sweden	7.7	...	...	...	36.8
United Kingdom	10.4	40.5	43.3	42.9	36.8
United States	...	60.5	63.4	65.9	...

(a) This rate is calculated as the difference between the number of workers with tenure of less than 1 year in year t, which represents the source population, less the number of workers with 1 and under 2 years' tenure in year t+1, as a percentage of the source population.

Sources: Eurostat and national sources for 1998; figures for previous years are from OECD (1997).

Job stability vs job security

The analysis of employment tenure data and separation rates by destination over the 1980s and 1990s does not show any dramatic changes in job stability in most of the industrialized countries under review. Average employment tenure remained generally stable and, in those countries where it did decline, labour-market improvement runs counter to the claim that job insecurity has increased dramatically. Moreover, employment-to-unemployment moves did not increase significantly, except in Spain until 1993. Nonetheless, there is still a sense among many labour-market observers — and not only in the United States — that the long-term employment relationship has been radically destabilized. Job insecurity has become a focus of media attention, and it is by and large suggested that "Americans should forget any idea of career-long employment with a big company". The data used in the present study show that this view is exaggerated and premature even in regard to the flexible employment system of the United States. Why is there such a gap in interpretation between the media, management consultants[17] and labour-market research?

[17] Tom Peters (1999), for example, believes that over 90 per cent of all white-collar jobs — the ones most people hold today — "will be totally reinvented/reconceived in the next decade".

One explanation — already suggested above — is that average employment tenure makes an inadequate indicator of job security, because it mainly measures job stability. Another possibility is that the *vulnerability* of workers may have increased because the consequences of separation have worsened. In the context of this argument, the perception of job security derives in part also from the general macroeconomic environment. In a country with good economic and labour-market performances, it is easier to obtain a new job. This, in turn, impacts favourably upon the perceived security of workers. In the United States, however, job prospects have been good for many years now, but the feeling of insecurity and volatility seems to have persisted at least until the mid-1990s (OECD,1997). The evidence of the *rising incidence of involuntary job loss* in the United States probably has a greater effect on worker anxiety regarding the labour market than does *overall job stability*.

There is of course the problem of inadequate media reporting. The media usually construct generalized "facts" from scarce evidence of a few micro-level cases, sometimes even from individual cases. Media reporting has also largely focused on job loss. Many observers have in fact suggested that the media's reliance on anecdotal evidence may lead to misleading conclusions about trends (Neumark and Polsky, 1998).[18]

Research too, especially on non-standard work arrangements, has greatly contributed to building up the image of an unstable and flexible labour market. Admittedly, parts of the labour market (particularly those with a high proportion of women) are characterized by a high degree of flexibility. But from this it has been inferred that the whole labour market in all countries is shifting towards unstable employment relationships. However, labour markets are better described as being segmented than as generally "flexibilized". Numerical flexibility (of involuntary nature) is still very much concentrated on young workers (both men and women) and on women workers.

Because job losses contribute greatly to the perception of insecurity it has also been suggested that the issue was raised more vocally because new categories of skilled, white-collar workers — those with a voice — have also experienced job losses.

Another possible explanation for the discrepancy between media accounts and empirical evidence — which suggests little or no change in job stability — is that media reports may identify more recent changes while there is a certain time lag in the reporting of data gathered from research. However, the latter is a constant of research and fails to explain why earlier findings of unchanged job stability (1993, 1996 and 1997) are confirmed by data in 1999. Of course, the future is unknown and change always tends to creep in from the margins, but all the empirical evidence on employment ten-

[18] During the first months of 1996, economic insecurity became a focus of media attention in the United States. The *New York Times* series "The Downsizing of America" is perhaps a classic example of anecdotal reporting.

ure so far suggests an astonishing resilience of job stability with (numerical) flexibility increasing, but only marginally so.

Concluding remarks

The evidence adduced in this article suggests that labour markets are more stable than is usually assumed, including over the longer term. This confirms earlier findings on the subject. Job stability as measured by employment tenure seems to be generally stable in the great majority of industrialized countries, even in the light of the latest available data for 1999. Although there is a marked difference in job stability between the United States and Europe (around 4 percentage points on average), there are also a few European countries with relatively low average tenure, such as the United Kingdom, Denmark and the Netherlands. But these differences too are stable over time, suggesting that labour-market institutions and labour-market behaviour are major explanatory factors.

Despite inter-country differences, both overall average tenure within countries and the intra-country distribution of employment by class of tenure thus seem to stay stable. One notable exception to this pattern is Ireland (and, to a lesser extent, the United States) where tenure is decreasing in all age groups, although only slightly so. Controlling for the effects of age and the business cycle on employment tenure, however, econometric analysis shows several countries to have experienced some decline in average tenure, though this is partly "masked" by workforce ageing. Most of this decline can be explained by a reduction in the tenure of young workers. This, in turn, possibly points to changing demand patterns (firms offering only temporary contracts at entry level) and changes in supply behaviour on the part of groups that have historically held the shortest-tenured jobs (young people getting choosier about jobs and readier to quit inadequate jobs). But decline in average tenure might simply be due to strong job creation, rather than to structural change in the employment relationship.

Even the growth of contingent employment — as crudely measured by overall stock data — does not seem to be generating any alarming trend towards the structural demise of more stable employment relationships. There is some evidence that temporary jobs are very important in flow terms (both in and out of employment), but many of these jobs tend to be transformed into permanent jobs, hence the relatively low stocks of such employment relationships.

Analysis of all the factors considered in this article goes against the popular views that most of today's employment relationships are of a temporary nature and that long-term employment relationships are a thing of the past. Its findings suggest that the bond between workers and their firms may well be weakened, but certainly not broken (Neumark and Polsky, 1998). Rather, they point to segmented labour markets in which the stable core still accounts for the dominant form of employment, while the periphery — which

has grown — constitutes a marginal form of employment, at least if one takes a long-term perspective on most individuals' professional trajectories. Segmentation between a more stable core and a flexible periphery seems to be particularly pronounced in countries with both high ratios of temporary to total employment and long average tenure, such as Spain.

So far, the picture of a rather stable labour market with flexibility growing on the margins thus seems to be confirmed for the industrialized countries. What does this mean in terms of the broad framework for new forms of security which should accompany a changed labour market? A first conclusion would be that the search for such new forms of security has to proceed very carefully and should avoid radical solutions which could prove ill-adapted to a system that is changing only marginally. In particular, covering those excluded from stable (core) employment, building bridges to the stable part of the employment system and redesigning policies for full employment and decent work based on more permanent labour-force attachment are still on the agenda.

As regards the functioning of the labour market, the resilience of the long-term employment relationship has several important implications both for research and for development policies. This article has suggested that the labour markets in most industrialized countries function with a segment of core "numerical" stability and a segment of marginal numerical flexibility.[19] Rather than some optimal degree of labour-market flexibility, it is an optimal *combination of stability and flexibility* in the labour markets that should be sought.

To that end, research needs to delineate elements of stability and of flexibility in the labour markets and to examine the effects of their combinations with growth, employment and wages, social welfare, etc. The aim is to find "good practice" combinations of stability and flexibility which underpin decent work and development. These combinations can take different forms and should certainly not result in a "one best way" solution.

For development policy, advice on these combinations is of great significance: if the message is not to search for optimum (or, worse, maximum) flexibility, but for an optimal combination of stability and flexibility, then the lack of stability rather than that of flexibility becomes apparent. But how can core stabilities that are economically sustainable be introduced in labour markets which critically lack them? This leads on to the question of what labour-market institutions can produce such core stabilities. At this point, all of the evidence from research on labour-market institutions in the industrialized countries proves at least one thing: core stability is not provided by firms, public administrations or other employers *alone*; it also requires a network of

[19] This view also holds true on the micro level (e.g. of firms). This does not refer to functional or internal flexibility whose level has been rising, despite the resilience of the long-term employment relationship.

economic, political and social institutions, regulations and policies to make it sustainable.

References

Allen, Steven G.; Clark, Robert L.; Schieber, Sylvester J. 1999. *Has job security vanished in large corporations?* NBER Working Paper No. 6966. Cambridge, MA, National Bureau of Economic Research. Feb.

Auer, Peter; Büchtemann, Christoph F. 1990. "La dérégulation du droit du travail: le cas de la libéralisation du recours aux contrats de travail à durée déterminée. L'expérience de l'Allemagne fédérale et de la France", in Peter Auer, Margaret Maruani and Emmanuèle Reynaud (eds.): *Chroniques internationales du marché du travail et des politiques d'emploi 1986-1989*. Paris, La Documentation Française, pp. 179-190.

—; Cazes, Sandrine; Spiezia, Vincenzo. 2001. *Stable or unstable jobs: Interpreting the evidence in industrialized countries*. Forthcoming in the Employment Paper Series. Geneva, ILO.

Bellmann, Lutz; Bender, Stephen; Hornsteiner, Ulrich. 2000. *Job tenure of two cohorts of young German men 1979-1990: An analysis of the (West-) German Employment Statistic Register Sample concerning multivariate failure times and unobserved heterogeneity*. IZA Discussion Paper No. 106. Bonn, Institute for the Study of Labor. Jan.

Burgess, Simon; Rees, Hedley. 1998. "A disaggregate analysis of the evolution of job tenure in Britain, 1975-1993", in *British Journal of Industrial Relations* (London), Vol. 36, No. 4 (Dec.), pp. 629-655.

—; Pacelli, Lia; Rees, Hedley. 1997. *Job tenure and labour market regulation: A comparison of Britain and Italy using micro data*. CEPR Discussion Paper No. 1712. London, Centre for Economic Policy Research. Oct.

Diebold, Francis X.; Neumark, David; Polsky, Daniel. 1997. "Job stability in the United States", in *Journal of Labor Economics* (Chicago, IL), Vol. 15, No. 2, pp. 206-235.

Dominitz, Jeff; Manski, Charles F. 1996. *Perceptions of economic insecurity: Evidence from the Survey of Economic Expectations*. NBER Working Paper No. 5690. Cambridge, MA, National Bureau of Economic Research.

European Commission. 1999. *Employment in Europe 1999*. Luxembourg, Office for Official Publications of the European Union.

Galtier, Bénédicte; Gautié, Jérôme. 2001. *Employment protection and LMP: Trade-offs and complementarities — The case of France*. Forthcoming in the Employment Paper Series. Geneva, ILO.

Gottschalk, Peter; Moffitt, Robert. 1999. "Changes in job instability and insecurity using monthly survey data", in *Journal of Labor Economics* (Chicago, IL), Vol. 17, No. 4 (Oct.), Part 2, pp. S91-S126.

Gregg, Paul; Wadsworth, Jonathan. 1995. "A short history of labour turnover, job tenure, and job security, 1975-93", in *Oxford Review of Economic Policy* (Oxford), Vol. 11, No. 1 (Spring), pp. 73-90.

Hall, Robert E. 1982. "The importance of lifetime jobs in the U.S. economy", in *American Economic Review* (Menasha, WI), Vol. 72, No. 4 (Sep.), pp. 716-724.

ILO. 1996. *World employment 1996/97: National policies in a global context*. Geneva.

Japan, Ministry of Labor of. 1999. *Monthly Labor Statistics and Research Bulletin* (Tokyo) various issues.

Madsen, Per Kongshøj. 2001. *Employment protection and LMP: Trade-offs and complementarities — The case of Denmark*. Forthcoming in the Employment Paper Series, Geneva, ILO.

Marcotte, Dave E. 1999. "Has job stability declined? Evidence from the Panel Study of Income Dynamics", in *American Journal of Economics and Sociology* (New York, NY), Vol. 58, No. 2 (Apr.), pp. 197-216.

Neumark, David. 2000. *Changes in job stability and job security: A collective effort to untangle, reconcile, and interpret the evidence*. NBER Working Paper No. 7472. Cambridge, MA, National Bureau of Economic Research. Jan.

—; Polsky, Daniel. 1998. "Changes in job stability and job security: Anecdotes and evidence", in Industrial Relations Research Association (ed.): *Proceedings of the Fiftieth Annual Meeting, Volume 1*. Ithaca, NY, ILR Press/Cornell University Press, pp. 78-87.

OECD. 1999a. *Economic Outlook.* Paris.

—. 1999b. *Employment Outlook.* Paris.

—. 1997. *Employment Outlook.* Paris.

—. 1996. *Employment Outlook.* Paris.

—. 1993. *Employment Outlook.* Paris.

Osterman, Paul. 2001. *Flexibility and commitment in the US labor market*. Forthcoming in the Employment Paper Series, Geneva, ILO.

Passet, Olivier. 2001. *Employment protection and LMP: trade-offs and complementarities — The case of Japan*. Forthcoming in the Employment Paper Series, Geneva, ILO.

Peters, Tom. 1999. *The brand you 50*. New York, NY, Alfred A. Knopf.

Polsky, Daniel. 1996. *Changes in the consequences of job separations in the US economy*. Unpublished mimeo. Philadelphia, PA, University of Pennsylvania.

Ureta, Manuelita. 1992. "The importance of lifetime jobs in the U.S. economy, revisited", in *American Economic Review* (Menasha, WI), Vol. 82, No. 1 (Mar.), pp. 322-335.

Valletta, Robert G.; O'Toole, Randy. 1997. "Job security update: Measuring job security", in *FRBSF Economic Letter* (http://www.frbsf.org/econrsrch/wklyltr/e197-34.html), 14 Nov.