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Unemployment risks in four European countries

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1 *Introduction*

Most researches on unemployment carried out by economists are mainly interested with aggregate rates of unemployment and the economic and institutional mechanisms underlying them. Also sociologists are interested in the effects of labour market regulations but they pay attention to unemployment risks of individuals rather than to aggregate rates. Moreover sociologists are deeply concerned with occupations' and individuals' characteristics influencing the likelihood of being fired. Two main contrasting theoretical approaches can be detected in current sociological researches devoted to unemployment. Several scholars maintain that social classes still represent a crucial factor in determining the risks of dismissing, the duration of unemployment episodes and, as a consequence, the length of employment spells (Breen 1997; Paugam & Gallie 2000; McGinnity & Hillmert 2002). On the opposite, other sociologists state that, in contemporary societies, the experience of unemployment is largely independent from class position because in a period of globalised economic competition it equally affects all occupations (Beck 1986; Giddens 1994).

In this paper we followed the first sociological stream, namely that stressing the persisting importance of the class structure in determining unemployment risks and job security. The reason is quite straightforward. Class structure is primarily based on the distinction between labour buyers and labour sellers and, in the case of employees, on the type of employment relations.

Two hypotheses are tested in the paper. First, unemployment risks and job security do vary across classes according to their specific employment relation and technical skills requirements. Second, the basic features of class disparities in the risks of unemployment and job security are rather stable across EU societies, despite their differences in the institutional arrangements and labour market regulations.

For the sake of simplicity, we limited our analysis to four countries, namely Denmark, Austria, Italy and UK. They have been selected in order to represent the main variations of institutional arrangements and labour market regulations existing in EU-15 countries. More precisely, Denmark represents countries where the state plays an important role in the functioning of the whole society; UK represents countries that attribute a great importance to the market in the workings of the society; Austria and, above all, Italy represent societies where family has a crucial position. Moreover Denmark and UK are intended to represent societies with rather flexible labour markets, while Austria and Italy are designated to represent countries with stricter labour market regulations.

2. Data and methods

To carry out our analysis we used data coming from the waves from 1994 to 2001 of the European Community Households Panel (ECHP). As said we studied both risks of unemployment and the length of employment episodes.

To estimate unemployment risks, we specified a random-coefficient Poisson regression model in order to control for individual unobserved heterogeneity. The dependent variable in this model is the incidence rate of unemployment. Class and level of education are treated as the independent variables explaining the risks of unemployment.

Incidence rates of unemployment are defined as the ratio of the duration in months of unemployment spells to the sum of this duration and that of employment episodes. We computed this ratio year by year for all people observed in the labour markets of Denmark, Italy, Austria, UK during the period 1994-2001. To put it other way, our dependent variable is the number of months of unemployment episodes during a year (or wave), standardized by the length in months of the overall participation in the labour market (i.e. number of months in unemployment + number of months in employment) of each interviewee. Since the total duration of the ECHP is 8 years (running from 1994-2001), each individual could be observed until 8 times (from the wave 1 to wave 8). This is why we used a multilevel model with a random intercept. In other words we used unemployment episodes as first level variable and individuals as a second level variable. As said, this procedure allows to control for unobserved heterogeneity and more specifically to take into account autocorrelation existing between unemployment episodes experienced by the same individual.

The class structure of the four countries was represented according to ESeC scheme. It is a recently developed nine-fold class scheme combining three different variables: a) occupation, coded according to Isco88(com); b) employment status, used to distinguish between employers, self-employed, managers, supervisors and employees; and c) size of organization, used to separate large employers from small ones. The crucial variable taken into account in order to place employees in different classes is the employment relation under which members of different classes are hired. Two basic employment relations can be detected in countries with market economy: the service contract and the labour contract. Managers, higher and lower grade professionals, higher grade supervisors and qualified white collars work on the basis of a service employment relation. On the contrary, incumbents of lower clerical occupations as well as skilled and unskilled manual workers are hired on the basis of a labour contract. The full ESeC scheme is as follows:

1. Higher professionals and managers (large employers, higher grade professional, administrative and managerial occupations);
- 2: Lower professionals and managers (lower grade professional, administrative and managerial occupations: higher grade supervisory and technician occupations);
- 3: Higher clerical, services and sales workers;
- 4: Small employers and self-employed in secondary and tertiary sector
- 5: Small employers and self-employed in agriculture;
- 6: Lower supervisors and technicians;
- 7: Lower clerical, services and sales workers;
- 8: Lower technical occupations (skilled workers);
- 9: Routine occupations (semi- and unskilled workers).

Moving to our second explicative variables, that is to say education, we coded it according to a collapsed three-fold version of ISCED scheme: tertiary education, higher secondary education, and lower secondary education or less. In order to prove that observed disparities between ESeC classes in the unemployment incidence rates are not affected by compositional effects and, on the contrary, do really depend on the specific employment relation underlying each class, we controlled also for gender, civil status, public or private sector of employment and health conditions of individuals. Moreover we controlled for period effects using a set of dummy variables indicating the ECHP waves.

The second step in our analysis was simpler than the preceding one. We computed a Kaplan Meier estimate of the survivor function in employment for all ESeC classes in each country. We adopted an observation window covering 96 months. During this period we observed monthly the position in the labour market of respondents to ECHP. We attributed them a class position according to the prevailing occupation performed during each wave, that is to say the occupation in which each interviewee was observed for the longest period during one year.

3. Classes and risks of unemployment

Tables 1 to 4 shows the parameters, expressed in multiplicative form, of our four Poisson regression models. These parameters can be interpreted as measures of how many times the unemployment incidence rate of each ESeC class is greater, or lower, than that of the reference class, i.e. ESeC class 1. The tables, not surprisingly, show that, everywhere, the unemployment incidence rate ratio of most, not to say all, ESeC class do significantly differ from that of incumbents of higher salariat occupations.

tab1- 4

To be more precise, we should say that the unemployment incidence rate ratio, with just few exception, follow, in Denmark, Austria, Italy and UK the same trend and, more precisely, the trend one would expect, taking into account the employment relations specific to each ESeC class and the associated positive or negative privileges. Self-employed and small employers both in agriculture and secondary and tertiary sector display the lowest incidence rate ratio of unemployment followed by people performing lower salariat occupations. On the contrary, lower service, lower technical and routine occupations show the highest incidence rate ratios of unemployment, as everybody would predict.

Yet, looking closer at class specific unemployment incidence rate ratios, it can be seen that their distribution, in the case of dependant workers, does not increase monotonically moving from higher to lower classes in every country. Expressly, incidence rate ratios display a monotonic trend in Italy, while in Denmark, Austria and the UK they do not.

In Denmark and UK, class 3 (intermediate occupations) appears to be affected by higher unemployment risks than those experienced by members of class 6 (lower supervisor and lower technician occupations) and the same holds in the case of class 7 compared to class 8. Also in Austria class 8 members are less likely to experience unemployment than those belonging to class 7.

These results confirm one of our hypotheses, namely that people carrying out jobs with specific technical contents in the industrial sector (i.e. those belonging to class 6 and 8) are more protected against risks of being fired than incumbents of rank and files occupations in the service sector. This is more so in the case of member of class 6 because most occupation belonging to this class are carried out on the basis of flexible and short term contract.

Nonetheless it can be said that among dependent occupations risks of unemployment are definitively lower in higher classes, increase a bit in the middle classes and are remarkably higher among lower classes.

Moreover an inspection to the parameters of our poisson regression models shows that by and large the differences between ESeC classes in the likelihood of experiencing unemployment episodes basically display the same structure.

4. Classes and the duration of employment episodes

Unemployment incidence rates give only an indirect information on job stability. In a sense employment stability is the other face of unemployment risks. The longer employment episodes the lower unemployment risks. But low unemployment incidence rate ratios can derive from either frequent and short unemployment experiences or less common but longer ones. In order to highlight this problem and to check whether the degrees of job stability experience by individuals belonging to different ESeC classes do really differ, we estimated, as stated in section 2, the monthly values of the survivor function in employment of each ESeC class, separately for each country.

The results of our exercise appear to confirm our previous remarks. First because the shape of survivor functions of ESeC classes are quite different everywhere. More precisely job episodes of the self-employed, the higher and the lower salariat occupations usually last much longer than job episodes among lower classes.

By and large this feature appears to be the same in all the countries we studied.