

Session Number: Second Poster Session  
Time: Thursday, August 26, PM

*Paper Prepared for the 31st General Conference of  
The International Association for Research in Income and Wealth*

**St. Gallen, Switzerland, August 22-28, 2010**

**The Employment Status as a Dimension of the Intergenerational  
Mobility: Evidence from European Countries**

Rosalia Castellano and Gennaro Punzo

For additional information please contact:

Name: Rosalia Castellano

Affiliation: University of Naples

Email Address: [lia.castellano@uniparthenope.it](mailto:lia.castellano@uniparthenope.it)

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# The Employment Status as a Dimension of the Intergenerational Mobility: Evidence from European Countries

Rosalia Castellano and Gennaro Punzo

Department of Statistics and Mathematics for Economic Research (DSMER)

University of Naples "Parthenope"

lia.castellano@uniparthenope.it; gennaro.punzo@uniparthenope.it

*Draft version*  
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31<sup>th</sup> General Conference of the International Association for Research in Income and Wealth (IARIW)  
(St-Gallen, Switzerland, August 22-28, 2010)

SECOND POSTER SESSION  
THURSDAY, AUGUST 26, LATE AFTERNOON  
INCOME DISTRIBUTION, INEQUALITY AND WEALTH

## Abstract

*The crucial aim of the paper is to look at the extent of intergenerational im-mobility from the occupational point of view and in an extensive international evidence. In a cross-country perspective, we intend to investigate the main spheres of family background – such as parents' behaviour or inheritance of human, social and financial capital – that matter most for the intergenerational linkage in terms of occupational decision-making. Consequently, we try to disclose how the impact of these determinants differs across a selected set of eight developed economies of Western Europe with different welfare regime. In this light, we also aim at evaluating how, in a generational perspective, the macro-economic or cultural context, the institutional settings or policies and, finally, the different stage of economic development may help to cause the occupational choice. In order to look into the key determinants of intergenerational im-mobility, in terms of employment choice, and to what extent they vary across countries, a three-stage structural multinomial logit model is estimated. Microdata come from the European-Union Survey on Income and Living Conditions (EU-SILC), the main new reference source for comparative statistics at European level, which also detects a set of retrospective parental information allowing to account for potential generational changes over time. Briefly, results we obtain are interesting, taken as a whole. Although some determinants appear to be similar across nations, wider country-specific differentials are often highlighted. Most of all, it emerges a relationship between the employment choice and the level of "national socio-economic well-being".*

**Keywords:** Intergenerational mobility; employment status; three-stage structural multinomial logit model; European Countries

## 1. Background and Introduction

As it has been well documented (d'Addio, 2007; Solon, 2002; Blanchflower, 2000), the socio-economic advantages or disadvantages may be frequently transmitted across generations both in developed and developing countries. Although the intergenerational im-mobility is devised as a many-sided phenomenon, the employment status undoubtedly remains one of the main dimensions in which it may occur. Indeed, along with the educational attainment and income/earning levels, the occupational status stands for a key component of social stratification as well as a critical predictor of inequality within and across generations (Earle and Sakova, 2000).

Even though there is a wide range of non-linearities in intergenerational mobility, several economists (Atkinson et al., 1983; Björklund and Jäntti, 1997; Mazumder, 2005) and sociologists (Breen and Goldthorpe, 2001; Erikson and Goldthorpe, 2002) agree with the idea that the family of origin, considered as a channel through which cultural values can be passed on to individuals, and, more

generally, the social origins and orientations play a crucial role for understanding intergenerational transmission of occupations. In this view, cultural and human capital, in terms of knowledge, experience, skills and talents, if transmitted across generations, may enhance the offspring's ability to perform specific tasks (Becker and Thomes, 1986; Becker, 1991; Foley, 2006; Jaeger and Holm, 2007). The type of ties and interaction dynamics, operating in different spheres of the same family, in terms of time, efforts and resources that parents invest in their children (Coleman, 1990), or of the neighbourhood and society at a large (Allen, 2000), also matter in an intergenerational perspective. In such a way, they contribute to the diffusion of *bridging* social capital, where bonds of connectedness are formed across diverse social groups inside open networks that bridge different communities, and *bonding* social capital, that only cements homogenous groups inside closed networks of family and friends (Putnam, 2000). In addition, the material and financial capital, in the forms of *inter-vivos* wealth transfers or inheritances and bequests, may strengthen social cleavages and have important directly or indirectly effects on start-up capital for many activities (Boehm and Schlottmann, 2004; Shapiro, 2004; Shlay, 2006). Briefly, in the household context, parents may provide their offspring with several resources and different forms of "capital"; nevertheless, the mechanisms of transmission may strongly vary over family components and, even more so, across countries since structural differences in national legal and fiscal frameworks exist. Therefore, in a cross-country perspective, an analysis of the influence the parents have on development and future opportunities of children becomes some more complex.

Until recently, several studies have stressed how self-employment occurs to quite a different extent across European countries as well as how substantial sub-national variations in self-employment rates may also exist within a same country (Georgellis and Wall, 2000). Nevertheless, a few researches, essentially at a country specific level, have recognized a theoretical and empirical link between the national or local institutional frameworks (*i.e.*, taxation, labour market regulation, credit market intervention, social protection system, etc.) and the self-employment incidence and, more generally, there is little evidence, in an international comparison, on how individuals allocate their labour effort between occupations or within them. Some other studies have demonstrated how self-employment may significantly contribute to the national economic growth, while some others (Pietrobelli et al., 2004; Evans et al., 2006) ask how the same economic development may affect the nature and extent of entrepreneurship. In this view, promoting self-employment may be one of the main objectives of government policies in order to stimulate employment creation, regional development, innovation, wealth creation and economic growth (Stevenson and Lundström, 2001). In other words, national governments may play a crucial role in determining the allocation of labour between self-employment and wage-employment through policy instruments and interventions. For examples, as asserted by Earle and Sakova (2000), a high rate of self-employment may reflect an environment encouraging risk-taking, job creation and market development or also a lack of jobs in sectors where wages are set above the market-clearing level.

As just discussed, structural differences in the legal and fiscal frameworks may cause barriers or, alternatively, stimulus to be directed towards employees rather than employers or own-account self-employed. For instance, Parker (2003) demonstrated how tax evasion affects the functioning of modern economies in several ways and the same workers may choose some occupations if they offer greater scope for income concealment than others (Cowell, 1990). Anyway, taxation is the institutional dimension that has attracted most attention as a potential determinant of self-employment (Torrini, 2005). Likewise, OECD (1998) asserted that employment protection may be a strong barrier to entrepreneurship in countries where it is prominent. Even more generally, Fölster (2002) gave evidence on how a larger welfare state may discourage entrepreneurship or, more specifically, Carrasco (1999) reported that unemployment benefits substantially decrease the probability of transitions from unemployment to self-employment in Spain.

In this light, the crucial aim of our paper is to interpret the level and the meaning of differences in the extent of intergenerational im-mobility in terms of employment decision-making across a selected set of eight developed economies (OECD countries with high income) of Western Europe

(*i.e.*, Denmark, Finland, Sweden, Germany, France, Italy, United Kingdom and Ireland) with different social protection systems and institutional frameworks. More precisely, the aim of the work is threefold. Firstly, in a cross-country perspective, we intend to explore in-depth some crucial factors, especially in the main spheres of family background – such as parents’ behaviour or inheritance of human, social and financial capital – that matter most for the individual propensities to enter self-employment rather than more traditional wage-employment (*i.e.*, to become an *employer* or an *own-account self-employed* rather than a salaried); consequently, we try to shed light on how the impact of these determinants differ across selected countries and explaining these differences. Secondly, we aim at looking into the earnings differentials and their determinants amongst employers, own-account self-employed and salaried workers in order to evaluate how these differentials contribute, in a cross-country viewpoint, to the occupational decision-making process. Thirdly, we propose to explain the dissimilar profiles and patterns in employment status across countries also in the light of the structural differences between the judicial position of employees and self-employed workers so as defined in each national institutional system and to evaluate their roles in terms of “pull” or “push” factors into self-employment. In other words, we also aim at evaluating how, in a generational perspective, the macro-economic or cultural context, the institutional settings or policies and, finally, the different stage of economic development may help to cause the occupational choice.

## **2. EU-SILC as a comparable European data source and a harmonized definition of self-employment**

Our analysis draws upon the *European-Union Survey on Income and Living Conditions* (EU-SILC), the main current reference source for timely, comparable and multidimensional statistics on income distribution and social exclusion at European level. The EU-SILC project is organised under a framework Regulation by Council and European Parliament and, thus, is compulsory for all EU Member States. Coordinated by Eurostat and built on the experience of the pioneer ECHP with a similar in scope and content, EU-SILC project has been developed as a flexible comparable instrument across European countries. International comparability is assured by a common framework which defines, among other things, a set of harmonised target primary and secondary variables, a recommended design for implementing the survey in each member country, common guidelines and procedures for imputation and weighting, universal concepts and classifications, and so on. Nevertheless, flexibility in EU-SILC implementation at a country level, especially in data sources, is also guaranteed in order to anchor the survey in each National Statistical System.

According to European Regulations, EU-SILC has to provide both cross-sectional data, with focal variables on income, poverty, social exclusion and other living conditions, and longitudinal data, pertaining to individual-level changes over time. For this purpose, an integrated rotational design – based on a number of sub-samples or replications, each of them similar in size and design and representative of the whole population – for those countries that launched a new survey was proposed by Eurostat<sup>1</sup>. In this view, although with different starting dates, all Member States adopt a probabilistic sample and almost all countries implemented an integrated design. Indeed, only a few countries used a modified design, mainly for the aim of integrating EU-SILC with an existing survey (*i.e.*, Germany, Finland, Sweden) and/or incorporating into EU-SILC an existing sample (*i.e.*,

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<sup>1</sup> To guaranteed flexibility, on a national scale, micro-data could come from two or more national sources, whether they are surveys or registers, one or more existing national sources combined or not with a new survey or a new harmonised survey to meet all EU-SILC requirements. In this light, on the basis of the data source used in EU-SILC, two groups of countries may be identified. The first one, covering the so-called register countries – *i.e.*, Denmark, Finland, Island, Netherlands, Norway, Sweden and Slovenia – most income components and some demographic information derives from administrative registers, while other individual variables by interviews. The second one, including all other countries – except Ireland, where, upon the explicit agreement of the household, the information is obtained from administrative source – the full information is obtained through interview.

Norway). Anyway, sample designs are found adapted to the national specificities and, at European level, the EU-SILC sample may be seen as the accumulation of samples drawn at national level.

Broadly, EU-SILC survey is a valuable data source on a substantial range of socio-economic topics both at household and individual level<sup>2</sup>. Really, while in the most countries “the main information collection shall pertain to persons aged 16 and over in the previous calendar year” (European Regulation n. 1177/2003), in the register countries only a single household member is interviewed and, thus, other household and income variables are collected either through register or through the same selected respondent. Obviously, different weighting systems and following rules are implemented.

In this work, we refer to wave 2005, the second one from the first launch of the EU-SILC project, carried out in 26 European countries; in particular, they are all the Member States (except Bulgaria, Malta and Romania) plus Island and Norway. Really, detailed information on employment status and sector of activity as well as on the single income and wealth components over the whole current calendar year are provided in each wave, but only the issue 2005 also detects a harmonised set of retrospective parental data as target secondary variables (*i.e.*, educational attainment, employment status, activity sector) which allow to account for potential generational changes over time<sup>3</sup>. Precisely, we focus on all those individuals, currently working, who are either self-employed or salaried workers, so as detected in a question concerning their main employment status, irrespective of their activity sector<sup>4</sup>; if multiple jobs are held, we consider the main job, that is the one with the greatest number of hours usually worked.

Really, although the self-employment is an intuitive concept, its nature is so intricate and heterogeneous that it is very difficult to get an objective and unambiguous definition as well as to establish the actual boundaries of its field. In fact, any integral approach to the evaluation and interpretation of self-employment and entrepreneurship is faced with the problem of the lack of a universal measurement yardstick, also due to the richness of theories and taxonomies which often conflict and overlap about precisely what self-employment means. In other words, as stressed by Blanchflower (2000), if it is not a simple matter to determine whether an individual is actually self-employed or not, it is certainly a more hard task to do so in a consistent way across countries where self-employment may occur to quite a different extent and where specific national contexts and dissimilar legal frameworks are identified. According to the most recent ILO Resolution concerning the International Classification of Status in Employment, adopted by the 15<sup>th</sup> International Conference of Labour Statisticians (1993), the self-employment embraces “all those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits)”; in this light, “the incumbents make the operational decisions affecting the enterprise or delegate such decisions while retaining responsibility for the welfare of the enterprise”. The ILO definition of self-employment jobs – that is referred to the traditional categorization of employment relationships based on legal subordination and the dependent/independent worker dichotomy – is the most common across the countries and also corresponds to the classification used by OECD.

Anyway, in this paper, we integrate the ILO definition of “self-employment jobs” with the Eurostat Labour Force Survey classification of “self-employed workers”, and we distinguish between *em-*

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<sup>2</sup> As for the ECHP, also EU-SILC survey covers only people living in private households, excluding from the target population all persons living in collective households or in institutions on a permanent or long-term basis. According to the standard EU-SILC definition, a private household means a person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living.

<sup>3</sup> The EU-SILC 2005 includes the special module “Intergenerational transmission of poverty” which collect parental information for each respondent aged over 24 and less than 66 during his/her childhood period (between ages of 12 and 16). Data are also available on whether father or mother was absent from the household.

<sup>4</sup> According to Labour Force Survey definition, a person is considered as working even if he/she did any work for pay or profit during the reference week, even for as little as one hour, or was not working, but had a job or business from which he/she was absent during the reference week. If the total absence from work exceeds three months, a salaried is considered to have a job only if continues to receive at least 50% of the wage or salary from their employer, while a self-employed is regarded as in employment only if he/she can be said to have a business, farm or professional practice.

*employers* and *own-account workers* that ILO Resolution includes under the heading of “self-employment jobs”. Both of them are classified as self-employed workers. In particular, employers are defined as “persons who work in their own business, professional practice or farm for the purpose of earning a profit, and who employ at least one other persons”; they create jobs for others and for this reason they represent clear cases of genuine entrepreneurship. Own-account workers, or self-employed workers *stricto sensu*, are defined as “persons who work in their own business, professional practice or farm for the purpose of earning a profit, and who do not employ any other person” or, at least, engaging members of his/her family or apprentices without payment. As a result, according to this broad definition of self-employment, which includes all workers not rewarded by a salary or wage and thus not classified as employees, also the sub-category of *unpaid family workers* is identified as such. Briefly, in accordance with ILO recommendations, EU-SILC guidelines essentially define the self-employment on three main differences from wage-employment: the nature of the economic risk, since in self-employment (although not compulsory) some capital investments are done, the remuneration form, that is the amount of profit depending on sales of produce or service, and the type of authority enjoyed (no contract/agreement of employment) and to which the worker is subject, since final decision on markets, scale of operation and finance are said.

Since the labour force participation decision is normally affected by many other factors which we prefer not to model (Fairlie and Meyer, 1996), we only analyze those individuals who are currently working. In such a way, we leave out all the not-employed individuals – *i.e.*, pupils, further training persons, unpaid apprentices, permanently disabled persons or/and individuals unfit to work or in compulsory military service, homemakers – as well as all those retired, pensioners or unemployed workers or other inactive persons (first-job seekers, well-off persons, etc). In this light, also students in vacation jobs from which they return to studies or to other non-work situation as well as persons who find a job to start in the future are disregarded. As it will be illustrate later, we also leave out all the *unpaid family workers*, that is any person who helps another member of his/her family to run a family business without payment or, at least, receiving remuneration in the form of fringe benefits and/or payments in kind.

### **3. A profile of self-employment across European countries**

By exploring EU-SILC data, in 2005, at European level (that is to say for all the countries involved in the EU-SILC project, taken as a whole), self-employed workers in the age class from 16 to 64 years account for 11.80 percent of the total workers (or 13.60 percent if self-employed workers in primary sector are also considered) with a coexistence ratio between self-employment and wage-employment equal to 13.47 percent (or 15.94 percent if self-employed workers in primary sector are also considered). Self-employment rates as defined above – ratio between self-employed workers (that is the sum of own-account workers and employers) and the total employed persons (irrespective of their status in employment) – show a great cross-national variation. As illustrated in the table A1 in appendix A, some countries, especially Greece and Italy where more than one-fifth of total workers are self-employed, have a rate above average (*i.e.*, Cyprus, Czech Republic, Spain, Hungary, Ireland and Portugal). This is in contrast with, for example, Luxembourg where less than 5 percent of total workers are self-employed. Also economies like France, Denmark, Norway, Austria, Sweden and Germany are below the EU average with more or less than 8 percent of self-employed workers.

Briefly, self-employment rates in the non-farm sectors range from roughly 5 percent to more than 20 percent; at one extreme, with lower self-employment incidence, there are some northern European economies, while at the other extreme, some southern countries. Nevertheless, self-employment rates show similar patterns across countries: outside the primary sector, self-employment tends to be more concentrated in construction, wholesale and retail trade and repairs, consumer and business services with rates higher than average; differently, self-employment rates lower than average concern some other sectors, *i.e.*, mining, manufacturing and electricity taken as a whole,

communication and intermediation. As they say, countries with lower self-employment rates appear to show lower than average rates in almost every sector.

**Table 1 – Self-employment rates in the selected European countries by activity sector**

	DE	DK	FI	FR	IE	IT	SE	UK	EU-26
Agriculture (A), Fishing (B)	33.66	45.56	65.45	47.54	70.73	40.87	46.45	41.62	50.29
Mining (C), Manufact (D), Electric. (E)	4.28	4.20	5.62	1.53	6.77	12.52	4.02	5.48	6.64
Construction (F)	14.31	15.02	21.99	12.79	25.2	30.09	17.42	32.93	21.37
Wholesale and retail trade, repairs (G)	9.13	9.92	15.53	11.01	12.19	38.97	14.16	9.90	18.53
Hotels and restaurants (H)	4.38	12.66	14.32	19.29	7.03	31.63	18.08	12.27	18.09
Transport, storage and communic. (I)	6.26	5.93	11.73	4.08	18.09	18.97	13.15	15.17	11.43
Financial intermediation (J)	12.11	1.18	2.61	2.77	3.52	14.47	6.25	2.15	8.68
Real estate, renting and business (K)	28.86	16.87	17.69	7.60	20.85	38.88	14.47	16.79	21.93
Public administration... (L)	0.97	3.22	0.23	0.66	–	1.18	0.43	1.30	0.87
Education (M)	6.37	5.49	0.55	0.84	5.06	2.94	0.64	4.81	3.36
Health and social work (N)	9.62	3.92	3.73	9.54	3.89	10.72	2.26	6.81	8.00
Other services (O+P+Q)	20.01	13.98	19.95	10.59	20.72	22.86	18.32	24.04	18.36
Total	9.88	8.89	12.53	8.26	15.26	21.52	8.75	11.70	13.60
Non-farm sectors	9.45	7.83	10.02	6.59	11.94	20.43	8.24	11.37	11.80
Unpaid family workers (all sectors)	0.28	0.20	0.13	0.58	0.40	2.68	0.00	0.00	1.09

Source: Authors' elaborations on EU-SILC data (2005)

Moreover, by contrasting some personal characteristics in the selected European countries, substantial differences between salaried and self-employed and, within self-employment, between employers and own-account workers are highlighted in the following tables. First of all, by exploring EU-SILC data, a higher incidence of men in self-employment than their wage-and-salary counterparts is detected over all countries considered – so women seem to be more “wage-oriented” – and, within self-employment, the incidence of male employers is always higher than the incidence of male own-account. Although a higher concentration of self-employment amongst national citizens than wage-employment is discovered for Ireland and Italy, in other countries (*i.e.*, Finland, France, Sweden and United Kingdom) there is no substantial differences or, at least, they are negligible). On average, self-employed workers tend to be older than salaried over all countries. Indeed, if the incidence of self-employment is poorer than wage-employment in the lower age-classes, it tends to be higher as we move towards the upper age-classes. In other words, self-employment tends to be more concentrated amongst individuals in mid-career (*i.e.*, between 35 and 44 years of age). At the same time, although there is a higher incidence of self-employed workers with a low educational level (*i.e.*, pre-primary, primary or lower secondary education) in several countries (*i.e.*, Finland, Italy, Sweden and United Kingdom) than their wage-and-salary counterparts, it seems to be, on average, a kind of compensating effect of education on self-employment. In fact, in some other countries (*i.e.*, Germany, France and Ireland) a higher incidence of self-employed workers with a high educational level (*i.e.*, first and second stage of tertiary education) than paid-employees is remarked. Our results suggest that in several countries (*i.e.*, Germany, Denmark, France, Italy, Sweden) self-employed actually have slightly better self-reported health than employees do, although this evidence is not adequately clear. Finally, income levels are surely higher for employers than own-account workers as well as the incidence of self-employed workers owning their main home.

**Table 2 – Main individual characteristics by employment status in Germany**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	48.85	47.81	60.73	73.69	54.46
Citizenship (1 if in the <i>residence country</i> )	90.68	91.09	85.91	95.38	81.32
Age ( <i>years</i> )	43.15	42.91	45.88	46.84	45.41
* Percent aged:					
- 16 to 24 years	7.79	8.35	1.33	0.23	1.86
- 25 to 34 years	17.80	18.17	13.58	10.34	15.15
- 35 to 44 years	28.17	27.93	30.84	32.66	29.96
- 45 to 54 years	24.75	24.31	29.79	30.71	29.34
- 55 to 64 years	21.50	21.24	24.47	26.05	23.70
Marital status (1 if <i>married</i> )	62.12	61.70	66.90	75.28	62.85
Children (1 if with children)	53.32	53.35	52.93	59.22	49.89
Health (1 if <i>chronic health condition</i> )	30.04	30.34	26.59	28.73	25.55
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	10.79	11.31	4.81	2.75	5.82
- Medium (ISCED97: 3; 4)	52.22	53.79	34.30	27.20	37.77
- High (ISCED97: 5)	36.99	34.89	60.89	70.06	56.41
Experience ( <i>years spent in paid work</i> )	20.12	20.08	20.56	22.82	19.44
Annual individual income ( <i>gross</i> ) – <i>ln</i>	9.77 (57.78)	9.78 (55.63)	9.63 (77.59)	10.48 (65.5)	9.18 (73.02)
Home ownership (1 if <i>owned</i> )	57.62	57.45	59.51	67.96	55.41

Source: Authors' elaborations on EU-SILC data (2005)

**Table 3 – Main individual characteristics by employment status in Denmark**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	46.48	51.56	74.06	79.76	68.29
Citizenship (1 if in the <i>residence country</i> )	95.52	95.68	93.82	95.39	92.24
Age ( <i>years</i> )	41.84	41.52	45.15	45.50	44.80
* Percent aged:					
- 16 to 24 years	6.64	7.23	0.42	0.41	0.43
- 25 to 34 years	21.60	22.28	14.46	11.68	17.27
- 35 to 44 years	29.54	29.01	35.03	37.13	32.90
- 45 to 54 years	25.81	25.49	29.12	28.60	29.64
- 55 to 64 years	16.43	15.99	20.98	22.18	19.77
Marital status (1 if <i>married</i> )	55.95	55.07	65.20	70.54	59.80
Children (1 if with children)	47.25	46.58	54.32	62.67	45.87
Health (1 if <i>chronic health condition</i> )	19.71	19.81	18.51	16.86	20.12
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	22.77	22.89	21.52	17.63	25.42
- Medium (ISCED97: 3; 4)	48.02	47.62	52.27	59.03	45.49
- High (ISCED97: 5)	29.21	29.49	26.21	23.34	29.09
Experience ( <i>years spent in paid work</i> )	–	–	–	–	–
Annual individual income ( <i>gross</i> ) – <i>ln</i>	10.33 (14.9)	10.37 (13.0)	9.72 (31.63)	10.05 (29.8)	9.43 (32.2)
Home ownership (1 if <i>owned</i> )	72.57	71.69	81.71	86.01	77.36

Source: Authors' elaborations on EU-SILC data (2005)

**Table 4 – Main individual characteristics by employment status in Finland**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	48.73	49.38	65.33	72.10	61.85
Citizenship (1 if in the <i>residence country</i> )	98.79	98.81	98.63	98.95	98.46
Age ( <i>years</i> )	42.73	42.15	47.06	45.93	47.64
* Percent aged:					
- 16 to 24 years	7.97	8.78	1.93	2.05	1.86
- 25 to 34 years	20.13	21.15	12.56	12.41	12.64
- 35 to 44 years	24.79	24.95	23.59	28.95	20.83
- 45 to 54 years	26.49	25.55	33.54	34.98	32.80
- 55 to 64 years	20.61	19.57	28.38	21.60	31.86
Marital status (1 if <i>married</i> )	51.55	49.90	63.88	67.39	62.08
Children (1 if with children)	41.16	40.79	43.90	48.65	41.45
Health (1 if <i>chronic health condition</i> )	36.76	36.61	38.16	31.58	41.26
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	19.07	17.95	27.48	21.38	30.62
- Medium (ISCED97: 3; 4)	45.66	45.59	46.18	42.85	47.90
- High (ISCED97: 5)	35.27	36.46	26.34	35.76	21.48
Experience ( <i>years spent in paid work</i> )	–	–	–	–	–
Annual individual income ( <i>gross</i> ) – <i>ln</i>	9.85 (13.33)	9.91 (12.98)	9.17 (13.32)	9.34 (14.45)	9.10 (12.72)
Home ownership (1 if <i>owned</i> )	70.40	68.69	83.16	87.17	81.10

Source: Authors' elaborations on EU-SILC data (2005)

**Table 5 – Main individual characteristics by employment status in France**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	50.10	48.94	64.44	72.07	60.68
Citizenship (1 if in the <i>residence country</i> )	93.89	93.94	93.13	94.30	92.55
Age ( <i>years</i> )	41.94	41.64	46.58	45.06	47.34
* Percent aged:					
- 16 to 24 years	8.89	9.41	0.97	0.50	1.20
- 25 to 34 years	22.86	23.44	14.04	16.20	12.98
- 35 to 44 years	25.14	25.00	27.29	29.78	26.06
- 45 to 54 years	22.56	22.04	30.48	34.37	28.56
- 55 to 64 years	20.55	20.11	27.22	19.15	31.20
Marital status (1 if <i>married</i> )	55.63	55.05	64.45	72.32	60.57
Children (1 if with children)	50.06	50.21	47.66	58.11	42.51
Health (1 if <i>chronic health condition</i> )	28.15	28.32	25.57	19.78	28.43
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	29.24	29.53	24.76	15.06	29.54
- Medium (ISCED97: 3; 4)	45.54	45.55	45.33	55.86	40.15
- High (ISCED97: 5)	24.81	24.49	29.72	29.08	30.04
Experience ( <i>years spent in paid work</i> )	19.16	18.84	23.98	24.58	23.69
Annual individual income ( <i>gross</i> ) – <i>ln</i>	9.76 (42.75)	9.75 (41.93)	9.97 (54.82)	10.24 (55.8)	9.78 (52.14)
Home ownership (1 if <i>owned</i> )	59.09	58.32	70.76	75.36	68.50

Source: Authors' elaborations on EU-SILC data (2005)

**Table 6 – Main individual characteristics by employment status in Ireland**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	47.55	49.54	75.20	76.93	74.11
Citizenship (1 if in the <i>residence country</i> )	93.98	93.82	95.24	97.01	94.13
Age ( <i>years</i> )	38.96	38.23	44.76	44.46	44.95
* Percent aged:					
- 16 to 24 years	17.52	19.61	1.09	0.56	1.42
- 25 to 34 years	24.02	24.83	17.67	15.61	18.96
- 35 to 44 years	20.83	19.58	30.66	35.71	27.47
- 45 to 54 years	24.22	23.30	31.45	29.92	32.41
- 55 to 64 years	13.41	12.68	19.14	18.19	19.74
Marital status (1 if <i>married</i> )	54.05	51.22	76.26	83.19	71.89
Children (1 if with children)	57.17	56.23	64.48	69.88	61.08
Health (1 if <i>chronic health condition</i> )	15.60	15.59	15.64	12.18	17.82
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	31.65	31.50	31.96	28.74	34.01
- Medium (ISCED97: 3; 4)	36.99	37.27	34.84	37.23	33.32
- High (ISCED97: 5)	31.15	30.94	32.80	33.74	32.21
Experience ( <i>years spent in paid work</i> )	–	–	–	–	–
Annual individual income ( <i>gross</i> ) – <i>ln</i>	9.93 (16.42)	9.89 (16.32)	10.18 (16.5)	10.52 (16.9)	9.95 (15.00)
Home ownership (1 if <i>owned</i> )	81.57	80.44	90.38	93.76	88.24

Source: Authors' elaborations on EU-SILC data (2005)

**Table 7 – Main individual characteristics by employment status in Italy**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	45.51	52.13	64.53	73.63	60.97
Citizenship (1 if in the <i>residence country</i> )	94.79	94.28	96.98	98.11	95.54
Age ( <i>years</i> )	42.42	42.07	43.91	45.31	43.36
* Percent aged:					
- 16 to 24 years	7.52	8.30	4.18	1.31	5.30
- 25 to 34 years	22.17	22.64	20.17	17.67	21.16
- 35 to 44 years	28.53	27.88	31.28	31.84	31.06
- 45 to 54 years	20.72	20.78	20.43	23.79	19.12
- 55 to 64 years	21.07	20.39	23.94	25.39	23.36
Marital status (1 if <i>married</i> )	61.13	60.38	64.31	71.01	61.68
Children (1 if with children)	47.26	47.36	46.83	48.39	46.23
Health (1 if <i>chronic health condition</i> )	15.07	15.31	14.04	13.02	14.44
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	46.07	45.84	47.06	49.17	46.23
- Medium (ISCED97: 3; 4)	40.29	40.81	38.05	39.97	37.29
- High (ISCED97: 5)	13.41	13.10	14.73	10.86	16.25
Experience ( <i>years spent in paid work</i> )	17.44	16.99	19.36	22.07	18.30
Annual individ. income ( <i>net-of-tax</i> ) – <i>ln</i>	9.48 (25.29)	9.47 (24.22)	9.52 (28.93)	9.88 (26.28)	9.36 (28.66)
Home ownership (1 if <i>owned</i> )	72.53	72.15	74.16	77.99	72.66

Source: Authors' elaborations on EU-SILC data (2005)

**Table 8 – Main individual characteristics by employment status in Sweden**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	49.16	48.63	73.92	75.21	72.61
Citizenship (1 if in the <i>residence country</i> )	95.94	95.97	95.63	95.79	95.47
Age ( <i>years</i> )	42.54	42.19	46.17	46.32	46.01
* Percent aged:					
- 16 to 24 years	8.08	8.65	2.11	1.64	2.58
- 25 to 34 years	21.82	22.63	13.41	14.11	12.69
- 35 to 44 years	25.19	24.90	28.15	28.13	28.18
- 45 to 54 years	23.12	22.56	29.00	26.00	32.04
- 55 to 64 years	21.79	21.26	27.33	30.12	24.51
Marital status (1 if <i>married</i> )	45.44	44.45	55.82	53.45	58.24
Children (1 if with children)	45.94	45.47	50.79	48.84	52.76
Health (1 if <i>chronic health condition</i> )	35.52	35.71	33.31	34.01	32.47
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	12.59	11.95	19.26	19.95	18.56
- Medium (ISCED97: 3; 4)	56.44	56.19	59.03	56.26	61.86
- High (ISCED97: 5)	30.98	31.86	21.71	23.79	19.58
Experience ( <i>years spent in paid work</i> )					
Annual individual income ( <i>gross</i> ) – <i>ln</i>	9.82 (26.82)	9.87 (24.86)	8.80 (43.74)	8.83 (38.32)	8.77 (48.07)
Home ownership (1 if <i>owned</i> )	68.84	67.78	79.89	79.95	79.83

Source: Authors' elaborations on EU-SILC data (2005)

**Table 9 – Main individual characteristics by employment status in United Kingdom**

Variable	Whole sample	Wage-Employed	Self-Employed (total)	Self-Employed:	
				Employers	Own-account
Gender (1 if <i>male</i> )	50.88	46.84	68.48	67.67	68.72
Citizenship (1 if in the <i>residence country</i> )	94.25	94.17	94.91	95.97	94.60
Age ( <i>years</i> )	41.13	40.60	45.57	46.11	45.40
* Percent aged:					
- 16 to 24 years	12.45	13.55	3.10	0.98	3.74
- 25 to 34 years	20.91	21.68	14.44	14.29	14.48
- 35 to 44 years	25.21	24.78	28.82	28.85	28.81
- 45 to 54 years	21.70	21.07	27.13	29.96	26.28
- 55 to 64 years	19.73	18.93	26.51	25.92	26.69
Marital status (1 if <i>married</i> )	53.11	51.82	64.06	72.20	61.61
Children (1 if with children)	42.72	42.65	43.33	47.16	42.15
Health (1 if <i>chronic health condition</i> )	31.05	30.91	32.30	30.74	32.75
* Percent education level:					
- Low (ISCED97: 0; 1; 2)	17.60	17.44	19.06	15.31	20.14
- Medium (ISCED97: 3; 4)	48.03	47.78	50.21	46.65	51.24
- High (ISCED97: 5)	34.30	34.71	30.66	37.72	28.61
Experience ( <i>years spent in paid work</i> )					
Annual individual income ( <i>gross</i> ) – <i>ln</i>	10.04 (45.0)	10.06 (42.0)	9.92 (64.3)	10.41 (73.4)	9.79 (59.72)
Home ownership (1 if <i>owned</i> )	73.45	72.55	81.05	87.68	79.06

Source: Authors' elaborations on EU-SILC data (2005)

#### 4. The Social Security System and its role in the institutional frameworks

Legislation may influence the individual occupational choices in various ways and an important channel of government involvement is certainly the social security system in its several dimensions. Indeed, some current government reforms have tended to increase social protections for the self-employment category, usually less protected, so that the position of employees and self-employed workers has come closer in a number of countries. Nevertheless, the social protection systems still

consistently vary across European countries and, since they act on working and living conditions, they are of course of influence on the position of employees and self-employed workers as well as on the related decision-making process. For example, for some countries the social security system may be so structured that for self-employed it brings about higher costs and lower benefits if compared to the employee's status. In general, such a situation may be seen as a negative signal on the path to self-employment. In this work, also a situation that brings about lower costs and lower benefits for the self-employed is regarded as a negative signal as well.

Broadly speaking, a social security system may be declined according to several components, each of them covers a specific risk. In particular, in this paper we consider the following six dimensions:

- *Insurance for unemployment*, that is contributions in case of lack of income due to unemployment and for entrepreneurs this refers to having a period of slow sales or few assignments. In many countries, this form of insurance is only open for employees with the exception of Denmark, Sweden and Finland where unemployment insurance is also optionally open for entrepreneurs, although business should be closed down fully to be entitled to an unemployment benefit. Several other countries – *i.e.*, Austria, Germany, France and Belgium – also offer temporary measures of income security in case of business failure.
- *Social security for sickness*, that is payments in case of lack of income due to illness. In a lot of European countries there are no arrangements for self-employed in case of sickness and this may be an obstacle to enter self-employment. Anyway, in some countries, where arrangements for self-employed are part of the public system – *i.e.*, Sweden, Finland, Luxembourg and Austria –, there is usually a few forms of benefit. Moreover, in countries as France and Germany arrangements depend on the sector of economic activity or, as in Italy, on the legal form of business.
- *Social security for disability*, that is income payments in case of full or partial incapacity for work. Generally, the situation for self-employed often appears less advantageous than that one for dependent employees. For some countries – *i.e.*, France, Italy, Denmark, Sweden and Finland – the situation is comparable to the arrangements for sickness. In Luxembourg and the Netherlands, self-employed join a compulsory insurance fund, which has lower benefits in case of disability and higher costs for insurance premiums. In some other countries – *i.e.*, Ireland, Portugal, Austria and Greece – lower benefits come with higher costs.
- *Social security for health insurance* which widely varies across European economies. Indeed, in some countries, citizens are entitled to free medical care for most facilities, while in some others the health insurance system is completely privatised. Anyway, most countries – *i.e.*, Denmark, Finland, Sweden and United Kingdom – do not have different systems for self-employed and employees.
- *Social security for old age* whose system is very complicated in most economies. Indeed, because of the large differences across countries, general considerations on the pension systems are not always easy to draw. In very broad terms, in many European countries, self-employed have to make private arrangements for their pension on a voluntary basis and, generally, they pay somewhat higher premiums to receive the same amount of pension.
- *Social security for child allowance, pregnancy and care* that in most countries covers the period of some weeks for dependent employees. As for most items of social security legislation, it can be expected that more responsibility is left to the entrepreneur, leading to a less favourable arrangement, but also lower contribution to the insurance, and the freedom of choice. In a number of countries, the period of maternity leave is shorter and/or the income is lower for self-employed compared to employees. In some others, care leave, extended parenthood leave and fraternity leave are not possible for self-employed workers, whereas they are for employees.

#### 4.1 An overview of the “welfare regimes” across European countries

With regard to the eight EU countries selected for this study – Denmark, Finland, Sweden, Germany, France, Italy, United Kingdom and Ireland – structural differences in social insurance system between self-employment and wage-employment may be highlighted. At this end, for each country we provide a short description of the main items of its social security system and, through a cross-national comparison, we seek to identify the potential obstacles that these differences may determine on the path to self-employment and to evaluate how severe they are.

In Denmark, the social security system does not cause serious obstacles on the path to self-employment since a basic level of social protection is always assured and requirements for starting up a self-employment activity are in general very few. In particular, just like employees, the Danish social protection system offers the possibility for self-employed workers to join an unemployment fund to ensure income when business fails and activities stop completely. Although every citizen, irrespective of his/her employment status, has the right to free medical care, the self-employed workers are not covered only the first two weeks of absence due to sickness. A self-employed is also entitled to benefits in case of disability which leads to a complete loss of the ability to work, while a partial loss of the ability entitles to an early retirement pension. Also, the rules regarding child allowance, maternity, pregnancy or care leave and pension regulations are similar for employees and self-employed and all working people pay about 1 percent of their monthly income to a special pension savings scheme.

In Finland, even if two different social security and taxation systems exist depending on whether you are an employee or a self-employed, there are, as in Denmark, few obstacles on the path to self-employment. Self-employed are entitled to the same basic unemployment allowance as the employees and they can also voluntarily join an unemployment fund and be entitled to earnings-related allowance. Concerning illness, accidents and disability, self-employed have same benefits compared to employees or, better still, the former can also get sickness allowance which compensates the loss of earning due to disability. Indeed, in Finland, all municipalities have to provide their inhabitants with a basic health care and all people permanently resident are entitled to Sickness Insurance which covers part of the costs of private health care services, medicines and travel costs. No major differences in the pension insurance payments between self-employed and employees exist and both can receive maternity and special maternity allowance, paternity and parental allowance and there are no differences concerning the compensations for child day care. In brief, the Finnish social protection system, in which the self-employed worker decides the level of security he/she is willing to cover, may be considered to be economically encouraging for self-employment.

Also in Sweden, whose social security system is based on the individual’s income, self-employed workers have the same rights as employees in terms of welfare benefits. Each person, working in Sweden as an employee or self-employed, is obliged to join the social security system to be covered by work-related insurance and to receive an economic support in case of unemployment, sickness or disability. Also the new Swedish pension system is the same for employees and self-employed as well as both have the same childcare rights and parental insurance.

In sum, it can be concluded that the social security systems in the Scandinavian countries considered cause no obstacles on the path to self-employment since the basic position for independent workers is quite secure and they have formally the same social security scheme as employees. Really, structural differences in social insurance systems between self-employment and wage-employment, along with those ones related to the taxation systems, are partly linked to the different welfare regime in each country. In this light, by following the Esping-Andersen (1990; 1999) classification, these Nordic countries, which tend to provide universal coverage of an extensive set of social risks, may be considered with a *social democratic regime*.

In Germany, self-employed workers are responsible on their own for all kinds of social insurances and pension schemes. In most elements of the social security system, they may choose to either be voluntarily insured in the public system or get private insurance, although in some cases (*i.e.*, of a business failure) the livelihood of self-employed persons and their families is somehow ensured. In

addition, a wide range of retirement schemes and disability or illness is offered by the private finance sector. However, it should be noted that this does not apply to workers who want to continue their professional career after a longer maternity/paternity leave as self-employed. Briefly, the insurance facilities for self-employed are equally good but differently designed and a few serious problems may arise which must be considered as important reasons for a widespread hesitation to enter self-employment with uncertain prospects.

In France, the social security system is composed of several systems, each one dedicated to a specific professional status. A very different system exists for salaried and for self-employed and the second one is composed of several sub-categories according to the nature of the business; in general, it is somewhat less protective for self-employed workers and also less costly. In particular, unemployment benefits are not concerned in the French social security system. Indeed, in case of unemployment, a self-employed worker receives no indemnity from public authorities, although he/she can contract a private insurance for unemployment risks and these conditions appear to be surely less favourable than in the public system for employees. Indeed, salaried workers receive indemnities for loss of salary during a longer period than self-employed and, regarding care leave, some employees benefit from the possibility to take a certain numbers of paid day leaves for taking care of their children while self-employed do not benefit of an equivalent. In other words, in case of maternity or illness/disability, the financial compensations for employees and for most self-employed are quite different and they are usually less favourable for self-employed.

In Italy, the social security system greatly differs for three typologies of self-employed. The first ones (*i.e.*, doctors, lawyers, chartered accounts, etc.), who are enrolled in a professional list, and the second ones (*i.e.*, retailers, craftsmen, etc.), who are inscribed at the Chamber of Commerce, receive more favourable treatment in terms of social security arrangements than the coordinated and continuative collaborators, that is the third category of self-employed in Italy. In particular, concerning the unemployment benefits, no self-employed get anything under this heading. Instead, referring to sickness, self-employed workers are covered by their own Welfare Funds, managed by their own associations, while coordinated and continuative collaborators might be covered only by their own personal insurance schemes. Although with regard to health insurance there is no substantial differences between the dependent workers and self-employed, in case of maternity, pregnancy or care leave, the first type of self-employed must ensure themselves for the period of loss of income, while the second and third types get monthly payments, that are much smaller in the case of coordinated and continuative collaborators, for a given period.

In brief, it can be concluded that a number of items of the social security systems in these countries may cause some obstacles on the path to self-employment since they prevalently tend to cover regular employees in traditional economic sectors over various compulsory social insurances with high costs and low benefits in return. By following, once more, the Esping-Andersen classification, these countries, which tend to provide structural differences in some social benefits between self-employment and wage-employment, may be considered with a *conservative regime*.

In the United Kingdom, the main obstacles that follow from social security legislation relate to unemployment and sickness because self-employed can only join private insurance companies if they want to cover loss of income for these reasons, whereas for employees this is covered in the public system. However, it should be noted that the less secure position for self-employed workers is combined with much lower costs for social security insurance too. Disability insurance in case of complete incapacity to work is part of the compulsory national insurance and, therefore, not very different for the two employment positions. A national health service exists in the United Kingdom with many facilities are available free of charge to all whether employees or self-employed. Apart from this basic system, supplementary private health insurance is also available, but it has serious cost implications.

In Ireland, requirements for starting up a business are very few, but there are a number of obstacles on the path to self-employment that follow from social security legislation and they essentially relate to unemployment, sickness, disability and child allowance, pregnancy and care. Both employ-

ees and, voluntarily, self-employed workers contribute to the social security system, which entitles them to a basic indemnity in case of disability, to a basic pension and, for employees, to an unemployment benefit. Employees who are made redundant are entitled to redundancy payments, which are usually related to the years of employment and rate of earnings. This surely gives employees a distinct advantage over self-employed persons and could act as an disincentive to enter self-employment. Sick leave with pay is not covered in the basic system, but this is usually part of a labour contract for employees, while self-employed are worse off as regards it; indeed, many self-employed workers do not take out insurance to cover them for sick leave. In addition, employees who become disabled have some advantages over self-employed persons and, therefore, where the risk of disability is high in a prospective self-employed situation, the difference in disability entitlements could discourage them from entering self-employment. Beside this, it is interesting to note that the Irish health insurance system is private and independent of the employment status.

In sum, it can be concluded that in United Kingdom and Ireland self-employed workers cannot benefit from all allowances that are not means tested as well as from protection against unfair dismissal, redundancy compensation and guaranteed pay. By following the same Esping-Andersen classification, these countries, which typically cover a limited number of risks on a means-tested basis and promotes recourse to the market, may be considered with a *liberal* or “*residual*” welfare regime. In these contexts, it is quite clear how self-employed workers are usually excluded from mandatory public schemes.

In other words, structural differences between the judicial and social position of dependent employees and self-employed across countries, the dissimilar fiscal treatment of different groups of workers, the various schemes of general requirements related to start-ups and the different regulations in labour law (*i.e.*, dismissal, working conditions, working hours, etc.) may facilitate or hinder the propensity to enter self-employment. In this light, the taxation systems, which often treat employees and self-employed workers differently, may be used by governments to encourage/discourage a form of behaviour in the employment decision-making (*i.e.*, fiscal deductions) by leading to a different fiscal treatment of different groups of people as well. At the same time, also the general requirements that must be met before the actual start of self-employment and the different extent to which employees are protected, which greatly vary among European countries, may form a serious obstacle on the path to self-employment. In this light, although large differences exist among the European countries in the number of requirements and their consequences for a start-up, in the most countries considered in this work – *i.e.*, Denmark, France, Italy, United Kingdom and Ireland – these requirements are limited and, therefore, a better climate for start-ups in general exists.

## **5. A methodological view: a three-stage structural multinomial logit model**

On the grounds of the international guidelines, we exclude from our analysis, on the one hand, the unpaid family workers, whose incidence is fairly negligible (table 1) in almost every country, since they are not self-employed *stricto sensu* but rather their assistants, and, on the other hand, the agricultural sector which traditionally has a high proportion of self-employed workers.

In a rational perspective where workers know their own characteristics and the implications of their individual choices, so as they choose the alternative that maximizes their utility, in our analysis we consider an extension of the classical statistical models where only two occupational status – self-employment ( $j=S$ ) and wage-employment – are considered. In particular, as anticipated above, beyond the traditional salaried workers ( $j=W$ ), we distinguish into self-employment between employers ( $j=E$ ) and own-account workers ( $j=O$ ). In addition, we believe that there is an *underlying decisional process* which, essentially based on comparison among the utilities of the alternative employment status, leads out to the individual occupational choice. Therefore, by following some previous studies (Holtz-Eakin et al., 1994; Dunn and Holtz-Eakin, 2000), we assume that the utility depends on a vector of personal and familiar features (*i.e.*, family-specific background) as well as on the earnings deriving from the employment status concerned. In this light, in order to evaluate

how the occupational choice is affected by all these characteristics, three-stage structural multinomial logit models are estimated.

Let  $z_i$  the outcome variable referring to the  $i_{th}$  worker which is coded 0 if he/she is a salaried (wage-employment), 1 if an employer (self-employment) and 2 if an own-account (self-employment). Taking salaried status as the reference category, response probabilities ( $\pi_j$ ) – that result from a choice problem in which individuals maximise utility across each alternative – are function of the vector of  $2(p+1)$  parameters  $\beta' = (\beta_1', \beta_2')$  denoted by (Long, 1997; Parker, 2004):

$$\pi_j(X, Y, W) = P(z_i = j | X, Y, W) = \frac{e^{g_j(X, Y, W)}}{\sum_{j=0}^2 e^{g_j(X, Y, W)}} \quad \text{for } j = 0, 1, 2 \quad (1)$$

where the utilities are given by:

$$g_j(X, Y, W) = \ln \left[ \frac{P(z_i = j | X, Y, W)}{P(z_i = 0 | X, Y, W)} \right] = \alpha (\ln \hat{Y}_{is} - \ln \hat{Y}_{iw}) + \beta_j' X_i + \gamma' W_k + \varepsilon_{ij} \quad (2)$$

where  $X_i$  is a vector of variables whose values vary across individuals and  $W_k$  is a vector of variables whose value vary across countries (*i.e.*, institutional variables) or across sub-areas in a same country (*i.e.*, area-level variables disaggregated at NUTS1 level);  $\alpha$  is a parameter related to the predicted log earnings ( $Y_{ij}$ ) from the alternative occupational status (with S=E and S=O, respectively),  $\beta_j$  is a vector of parameters linked to the individual characteristics and other variables influencing the occupational choice amongst salaried, employer and own-account status, and  $\varepsilon_i$ , the error terms, are hypothesized to obey a standard logistic distribution. We prefer to test a multinomial logit model rather than separate binary logit models for each typology of self-employment because it allows to evaluate simultaneously the effects of several factors on the probability of employer status and own-account status and, at the same time, to test for differences or similarities in the potential determinants of the three typologies of work. Anyway, although the employer status and own-account status are quite different, in practice, there may be some overlap in their predictors.

To predict individual's expected earnings for employers, own-account and salaried, earnings equations are separately estimated for individuals in each employment status since incomes are only observed in the occupation that individuals choose to participate in. Moreover, in order to overcome the potential selection bias – raised from using non-random selected samples on the basis of the consideration that in a sub-sample employers, own-account workers and employees may differently behave – a two-stage estimation method by Heckman (1979) is adopted. Thus, as in human capital models (Mincer, 1974), the earnings equations are simultaneously estimated on control variables, that is a set of human capital characteristics, and on selection terms ( $\lambda_{ij}$ ) from reduced form logit equation which allow to obtain consistent estimation of the earnings equations for employers, own-account and wage-employed, respectively:

$$[\ln Y_{iE} | Z_i] = \gamma_E' Z_i + \delta_E \lambda_{iE} + \eta_{iE} \quad (3)$$

$$[\ln Y_{iO} | Z_i] = \gamma_O' Z_i + \delta_O \lambda_{iO} + \eta_{iO} \quad (4)$$

$$[\ln Y_{iW} | Z_i] = \gamma_W' Z_i + \delta_W \lambda_{iW} + \eta_{iW} \quad (5)$$

where  $\gamma$  and  $\delta$  are vectors of parameter to be estimated and  $\eta$  denotes the error terms with zero mean and constant variance; more precisely,  $\lambda_{iE}$ ,  $\lambda_{iO}$  and  $\lambda_{iW}$  are the Inverse Mills Ratios to correct for selectivity into each occupation.

Briefly, in the first stage, the reduced form logit equation, whose aim is to calculate the selectivity terms, is estimated; it yields some early evidences on the impacts of some characteristics (individual and familiar) on the selection into self-employment (employer and own-account status). In the second stage, the three earnings equations (3) (4) (5), with the inclusion of the selection terms, are estimated. Finally, in the third stage, the structural multinomial logit equations, where the expected earnings differential is introduced as explicative variable, are estimated.

## 6. A set of predictors for individual characteristics and as proxy of the different forms of capital and institutional and socio-economic variations

By justifying the multinomial logit model as derivation from models of individual behaviour, it allows to define the probabilities, and to interpret them in utility terms, that the events to be an employer rather than an own-account worker occur. Several explanatory variables are tested according to a stepwise procedure, some of them are directly available in EU-SILC data, while some others have purposely been constructed (“derived” variables”) on the basis of the same data.

While a first set of individual-level covariates detects some socio-demographic characteristics, a second set of them is used as proxy for the measurement of the different form of workers’ capital. Anyway, both of them may help in explaining the decision to enter self-employment. Firstly, the human capital is evaluated through the educational attainment, in terms of the highest ISCED-97 level achieved by the worker, and by the labour force experience of the individual, in terms of number of years since starting the first regular job, that the person has spent at work, whether as an employee or self-employed. Secondly, the social capital, specifically the parental role models and family background, is considered by analysing the impact to have one or both the parents more or less educated or even self-employed themselves; in particular, parental work status is a derived variable which, in the estimation procedure, has been split into two dummies, using the 0 category (*neither of the parents is/was self-employed*) as the control group. Thirdly, other two proxy variables are included to capture some financial and wealth aspects; in particular, the individual income will be cautiously treated because of potential endogeneity, since it also results from the same individual’s occupational status.

**Table 10 – Description of auxiliary variables matrix**

Variable	Description
Individual-level variables <i>Demographic and own personal characteristics:</i>	
Gender	Dummy variable with value 1 if the worker is <i>male</i> and 0 otherwise
Citizenship	Dummy variable with value 1 for workers with <i>citizenship in the same country of residence</i> and 0 for workers with citizenship in any other EU-25 country, except the country of residence, or any other country
Age	Age in years of the worker at the date of interview
Marital status	Dummy variable with value 1 if the worker is <i>currently married</i> and 0 otherwise, that is he/she has never been married (single) or he/she has been married in the past (separated, divorced or widowed)
Children	Dummy variable with value 1 for workers with dependent children and 0 otherwise
Chronic Health	Dummy variable with value 1 for workers who suffer from any a <i>chronic</i> (long-standing) illness or condition and 0 otherwise
<i>Human and Social capital:</i>	
Education level	Highest ISCED-97 level attained ( <i>three levels</i> ): <i>Low level</i> (ISCED-97: 0; 1; 2) - 0: Pre-primary education - 1: Primary education - 2: Lower secondary education <i>Medium level</i> (ISCED-97: 3; 4) - 3: Upper secondary education

	<ul style="list-style-type: none"> <li>- 4: Post-secondary non tertiary education</li> </ul> <i>High level (ISCED-97: 5)</i> <ul style="list-style-type: none"> <li>- 5: First stage of tertiary education (not leading directly to an advanced research qualification) and second stage of tertiary education (leading to an advanced research qualification)</li> </ul>
Work experience	Number of years, since starting the first regular job, that a person has spent at work, whether as an employee or self-employed
Parents' education level	Highest ISCED-97 level attained by the parent with the higher education level ( <i>three</i> levels as in individual education level)
Parental work status	"Derived" variable with value 0 if <i>neither</i> of the parents is self-employed, 1 if <i>only one</i> parent is self-employed and 2 if <i>both</i> parents are self-employed
<i>Financial capital:</i>	
Annual individual income ( <i>ln</i> )	It detects the earned income in 2004 by wage-employed and self-employed workers, respectively
Home ownership	Dummy variable with value 1 if the worker or his/her family owns the home where lives and 0 otherwise ( <i>i.e.</i> , he/she rents, sublets the home at prevailing or reduced market rate or occupies the home free of charge)
<i>Institutional variables</i>	
<i>Social security system</i>	
Unemployment	"Derived" dummy variables: <ul style="list-style-type: none"> <li>- 1: if there are structural differences between the judicial position of employees and self-employed which may cause serious obstacles (negative signals) on the path to self-employment</li> <li>- 0: if no structural differences exist between the judicial position of the two employment status (positive or neutral signals)</li> </ul>
Sickness	
Disability	
Health insurance	
Old age	
Child allowance, pregnancy and care	
<i>Taxation system</i>	
Taxation	"Derived" dummy variable with value 1 if obstacles arise from the different taxation systems for employees and self-employed
<i>Labour law system</i>	
Requirements for start-ups	"Derived" dummy variables with value 1 if the general requirements that must be met to start self-employment or the labour law system hinder the path to self-employment
Labour law	
Labour contracts	
<i>Area-level variables (NUTS1 level)</i>	
Long-term unemployment rate	Ratio between long-term unemployed individuals (12 months and more) and total labour force
LnGDP per capita in PPS	Instrumental variable as a proxy for the measurement of the level of wealth characterizing workers' environment
Degree of urbanisation	Dummy variable with value 1 if the area where the worker lives is <i>densely</i> populated and 0 otherwise ( <i>intermediate</i> or <i>thinly</i> populated)

As widely explained above, in order to evaluate how the occupational choice is also affected by institutional and socio-economic background, which greatly vary across European countries, the models are enriched by a set of contextual variables. Beyond the institutional variables, which reflect the impact of potential obstacle on the path to self-employment linked to the different social protection, taxation and labour law systems existing in each European country considered (about which we have widely discussed), a set of EU-harmonized indicators – *i.e.*, long-term unemployment rate, gross domestic product per capita in purchasing power standard and degree of urbanisation –, related to each NUTS1 region where the worker lives, is selected by the Eurostat data base of territorial indicators.

## 7. Main empirical evidences

As widely discussed above, our analysis concerns eight EU capitalist economies of Western Europe, classified as OECD countries with high income. In particular, the aggregate we consider includes the dependent/independent workers (leaving out the unpaid family workers) of aged 16-64

which operate in whatever economic sector with the exception of the primary one, traditionally characterized by high self-employment rates.

In the first stage, the reduced form logit equation (tab. 11), where the reference category is the employee status, generates the selectivity terms and yields an early evidence on the impact of some individual and familiar characteristics on the selection into self-employment. Since the base category is the employee status, the coefficients concerned the status of own-account or employer evaluate the impact of each covariate on the log-odds ratio of the probability of observing an individual in that employment status over the probability to be in the employee status.

**Table 11 – Reduced Multinomial Logit Models**

Independent variables	Employer	Own-account
<i>Individual-level variables:</i>		
<i>Socio-demographic variables:</i>		
Gender (1 if <i>male</i> )	0.2201*** (.0178)	0.4245*** (.0243)
Citizenship (1 if in the <i>residence country</i> )	0.3089* (.1731)	0.3067*** (.0841)
Age ( <i>years</i> )	0.0107*** (.0013)	0.0041** (.0020)
Marital status (1 if <i>married</i> )	- 0.0723*** (.0204)	0.0755** (.0286)
Children (1 if <i>with children</i> )	- 0.0112** (.0006)	- 0.1012*** (.0253)
Health (1 if <i>chronic health condition</i> )	- 0.0627*** (.0219)	- 0.1268*** (.0297)
<i>Human, social and financial capital:</i>		
Education level ( <i>low as reference</i> ):		
- Medium (ISCED97: 3; 4)	0.0056 (.0212)	0.0078 (.0282)
- High (ISCED97: 5)	0.2213*** (.0266)	0.1874*** (.0364)
Parent's education level ( <i>low as reference</i> ):		
- Medium (ISCED97: 3; 4)	0.0541** (.0244)	0.0477 (.0333)
- High (ISCED97: 5)	0.2095*** (.0321)	0.2602*** (.0426)
Parental work status ( <i>neither as reference</i> ):		
- Self-Employed parent ( <i>both</i> )	0.3704*** (.0406)	0.5079*** (.0506)
- Self-Employed ( <i>only one</i> )	0.2634*** (.0195)	0.4693*** (.0244)
Experience ( <i>years spent in paid work</i> )	0.0067*** (.0012)	0.0133*** (.0018)
Home ownership (1 if <i>owned</i> )	0.0300* (.0146)	0.0746*** (.0271)
<i>Institutional variables:</i>		
<i>Social security legislation (1 if not obstacle)</i>		
- Unemployment insurance	- 0.7271*** (.0268)	- 0.6269*** (.0365)
- Sickness indemnity and health insurance	- 0.5944*** (.1657)	- 0.7245*** (.1827)
- Disability	0.9985*** (.2176)	0.1444*** (.0422)
- Old age	0.7345*** (.2477)	0.6548*** (.1542)
- Child allowance, pregnancy and care	0.1358*** (.0279)	0.0985*** (.0278)
<i>Taxation system</i>		
- Taxation (1 if <i>not obstacle</i> )	0.5894** (.2875)	0.4900*** (.1635)
<i>Area-level variables (NUTS 1 level):</i>		
- Long-term unemployment rate	0.0117** (.0079)	0.0285** (.0100)
- lnGDP per capita in PPS	- 0.0068** (.0034)	- 0.0087** (.0044)
- Degree of urbanisation (1 if <i>densely</i> )	0.0271* (.0151)	0.0441** (.0176)
<i>Selected EU countries (Italy as reference)</i>		
- Denmark	- 0.2017*** (.0298)	- 0.7214*** (.0288)
- Finland	0.1846*** (.0208)	0.0277*** (.0164)
- Sweden	- 0.1513*** (.0290)	- 0.6420*** (.0273)
- France	- 0.5616*** (.0302)	- 0.7230*** (.0226)
- Germany	- 0.4103*** (.0242)	- 0.6212*** (.0189)
- United Kingdom	- 0.3814*** (.0264)	- 0.3445*** (.0182)
- Ireland	- 0.1034*** (.0315)	- 0.4049*** (.0265)
Log likelihood	- 13,643.48	- 7,327.20

Source: Authors' elaborations on EU-SILC data (2005)

Firstly, we focus on individual-level determinants of employment choice whose results, in general, highlight how being a *man* with *citizenship* in the country of residence and *older* increases the probability to become a self-employed, both employer and own-account worker. Also, the *work experi-*

*ence* is consistently statistically significant, as they say, years of experience in the labour market are often required before starting an activity on own-account. As widely discussed by Parker (2004), older people are more likely to overcome borrowing constraints and, on the other hand, a person, only after a period of salaried work, might discover its own preference for self-employment to acquire autonomy. It is well-known that self-employment offers greater flexibility in terms of the individual's discretion over the length, location and scheduling or even the work time (Quinn, 1980) and, in this light, it might be expected that, all else equal, individual in poor health are likely to be self-employed. Nevertheless, our results denote that both the employer and own-account status are often a poor choice for individual in poor health, probably due to the fact that self-employment requires, on average, greater levels of concentration and stress and more work hours. In addition, an other interesting difference between employer and own-account status concerns the marital status and children. Own-account workers are significantly more likely to be married with dependent children, while this is not true for employers. As they say, married people with children may be unwilling to take the risks associated with entrepreneurship, although employers are older on average and so more likely to be married. In other words, as highlighted by Dolton and Makepeace (1990), the family responsibilities seem to have a negative impact on risk-taking and, as consequence, would reduce the probability of becoming entrepreneur.

Beyond this rich set of significant socio-demographic personal characteristics, our analysis points to a positive effect of the individual education level on the probability of being or entering self-employment. This is in contrast with several other authors (Lentz and Laband, 1990; Wit, 1990) who support the opposite evidence, pointing to a negative relationship between educational attainment, often expressed in terms of years spent in education, and the probability of being self-employment. They argue that several competences required to be self-employed would depend on the informal transmission of human or social capital and not necessarily through a formal education. Really, we also believe this reasoning may be essentially true for craft workers, small employers or similar, whose incidence, into the category of self-employment, is quite high in almost every country, but not for members of profession for which a formal education attainment is mandatory (Quintano et al., 2009). As with age and individual education, also the parents' education level and the parental work status, as proxies for the measurement of workers' human and social capital as well as of generational dimension, have a significant positive effect on the probability to become a self-employed rather than a salaried. In particular, the propensity to enter self-employment, both employer and own-account, enhances when both the parents are (or were) self-employed. Dunn and Holtz-Eakin (2000) identified the parental self-employment experience and the business success as the two main channels through which intergenerational transmission process may take place. As they say, self-employment tends to run in families, pointing clearly to strong intergenerational links between parents and children, through which parents transfer managerial skills to their offspring. According to a joint interpretation of several factors influencing the propensity to self-employment in a generational perspective, it is interesting to remind that older persons may be more likely to have received inheritances and to have accumulated capital which can be used to set up a business more cheaply.

Moreover, our findings highlight how the social protection systems, which consistently varies across European countries, influence the employment decision-making. As illustrated above, such differences, along with those ones related to the taxation systems, may be partly linked to the "welfare regime" in each country. In this light, it is worth stressing how in some European States (*i.e.*, the Nordic countries of Denmark, Sweden and Finland), despite a social democratic regime which tends to provide universal coverage of an extensive set of social risks so that the independent workers formally boast the same social security scheme as employees, the incidence of self-employment is rather lower than other countries with a more conservative regime (*i.e.*, France, Germany, Italy), which prevalently cover regular employees in traditional economic sectors over various compulsory social insurances with high costs and low benefits in return, or countries with a liberal or "residual" welfare regime (*i.e.*, Ireland and UK), where social security contributions are nominally set at a lower level for the self-employed, reflecting the lower level of benefit coverage these states offer

them. In this light, our findings confirm some previous studies which asserted how high levels of employment protection may be a barrier to self-employment where it is prominent, such as Scandinavian countries. As they say, a larger welfare state may discourage self-employment by crowding out private savings required to leverage start-up finance, especially if borrowing constraints exist (Fölster, 2002). Obviously, beyond the protection legislation, also the cultural values and orientations as well as the economic structure of a country play a significant role in determining levels and patterns of self-employment and a joint interpretation of all these factors is requested to give some additional insights on the role of self-employment in the developed world and on their determinants. In this light, for example, our analysis underlines how people living in richer countries, in terms of higher GDP and lower unemployment rate, and so, more generally, with higher levels of “national economic well-being”, seem to be less likely to enter self-employment. In particular, as stressed by Parker (2004) high levels of unemployment may reduce the opportunities of gaining wage-employment and the expected gains from job search which “pushes” people into self-employment or also they may face lower market demands, reducing self-employment incomes and possibly the availability of capital, which “pull” out individuals from self-employment. Anyway, empirical evidence of the relationship between unemployment and self-employment may confound the above two effects and thus the “net” effect, its size and direction as well, is hard to evaluate.

In the second stage, the three earnings equations with the selectivity terms are estimated and expected earnings differentials for each worker are predicted (table 11). These earnings equations are based on an extension of the basic Mincer model (1974), where the earnings of individuals depend not only on educational attainment and work experience, but also on a range of personal characteristics (*i.e.*, in this work, gender, citizenship, age, health status, parental education level) and structural factors (*i.e.*, in this work, activity sectors).

**Table 12 – Earnings Equations for the three employment status**

Independent variables	Employee	Employer	Own-account
Intercept	- 0.9854*** (.2740)	1.0448* (.5996)	0.7548* (.4550)
Gender (1 if <i>male</i> )	0.4875*** (.0084)	0.4568*** (.0691)	0.4269*** (.0384)
Citizenship (1 if in the <i>residence country</i> )	0.1457*** (.0182)	0.0953 (.1709)	0.0739 (.0872)
Age ( <i>years</i> )	0.0018** (.0007)	0.0188** (.0041)	0.0044* (.0027)
Health (1 if <i>chronic health condition</i> )	- 0.0554*** (.0084)	- 0.0621*** (.0537)	- 0.1664*** (.0444)
Education level ( <i>low as reference</i> ):			
- Medium (ISCED97: 3; 4)	0.2341*** (.0087)	0.1088** (.0485)	0.1382*** (.0382)
- High (ISCED97: 5)	0.6051*** (.0108)	0.5517*** (.0710)	- 0.3262*** (.0482)
Parent’s education level ( <i>low as reference</i> ):			
- Medium (ISCED97: 3; 4)	0.0760*** (.0082)	0.0655 (.0561)	0.0881** (.0406)
- High (ISCED97: 5)	0.1047*** (.0111)	0.2363* (.0727)	0.0078 (.0542)
Experience ( <i>years spent in paid work</i> )	0.0217*** (.0006)	0.0118*** (.0026)	0.0086*** (.0025)
Activity sector ( <i>Industry as reference</i> ):			
- Construction	- 0.1632*** (.0149)	- 0.0672 (.0708)	- 0.1103* (.0613)
- Trade&Transport	- 0.1223*** (.0102)	- 0.0945* (.0542)	- 0.1349*** (.0499)
- Financial	0.0571*** (.0124)	0.2493*** (.0706)	0.0055 (.0537)
- Others	- 0.0677*** (.0090)	- 0.0790*** (.0395)	- 0.1912*** (.0540)
Lambda	0.8033 (.5911)	0.2987** (.1219)	0.0960** (.0459)
Adj R-Squared	.3458	.2144	.3584

Source: Authors’ elaborations on EU-SILC data (2005)

Both for employers and own-account workers, the earnings equations show low adjusted R-squared which reflect the importance of some unmeasured entrepreneurial skills. The coefficients of selection correction are positive in self-employment earnings equations, both for employer and own-account status, and statistically significant at the conventional levels. It means that selection bias is found, so individuals who work in one status have comparative advantages than workers in other ones. In general, our results are consistent with Mincer model and the experience in labour market is consistently statistically significant both for employees and self-employed workers. These find-

ings partially agree with those of other studies (Rees and Shah, 1986; Le, 1999), where it is highlighted how the labour experiences play a larger influence on the earnings of employees than self-employed. In addition, empirical evidence show how the individual and parental educational levels play an important role in the determination of earnings and how the returns to education increase (with the exception of own-account workers) when the level of education is higher. Finally, we also include dummies for economic branches where industry is the reference category and the main results show how the activity sector often plays a significant influence on the same earnings. In the third stage, the structural multinomial logit models (tab. 13-15), in which the expected earnings differentials are introduced as explicative variable, are estimated country-by-country with the Newey-West correction since the income variables have been generated from previous earnings regressions.

**Table 13 – Structural Multinomial Logit Models – Denmark, Finland and Sweden**

Independent variables	Denmark		Finland		Sweden	
	Employers	Own-account	Employers	Own-account	Employers	Own-account
Earnings differentials ( <i>ln</i> )	-0.1665**	-0.4733*	-0.4550**	-0.5159*	-0.7341*	-0.6925**
Gender (1 if <i>male</i> )	0.4926***	0.3422***	0.3918***	0.2722***	0.5173***	0.3593***
Citizenship (1 if in <i>residence country</i> )	0.3300**	-0.7219	-0.0832	-0.6863	0.0143	0.1180
Age ( <i>years</i> )	-0.0107***	-0.0174**	-0.0258*	-0.0420*	0.0514*	0.0836*
Marital status (1 if <i>married</i> )	0.2410**	0.0898**	0.2327***	0.0867***	0.2119***	0.0790***
Children (1 if <i>with children</i> )	0.0745	0.0274	0.0144	0.0053	0.0845*	0.0311*
Health (1 if <i>chronic health condition</i> )	-0.1147	-0.0230	-0.1214	-0.0244	-0.0145*	-0.0029*
Education level ( <i>low</i> as reference):						
- Medium (ISCED97: 3; 4)	0.0274	0.0047	0.0147	0.0025	0.0124	0.0021
- High (ISCED97: 5)	-0.0547*	-0.0230**	0.3465***	0.1458***	0.1938*	0.0815*
Parent's education level ( <i>low</i> as ref.)						
- Medium (ISCED97: 3; 4)	0.0354**	0.4422**	0.0241**	0.3011**	0.0985*	1.2305
- High (ISCED97: 5)	0.0242*	0.0205**	0.2357*	0.1995*	0.1057*	0.0895*
Parental work status ( <i>neither</i> as ref.)						
- Self-Employed parent ( <i>both</i> )	0.2985**	0.1919**	0.1548**	0.0995**	0.0874*	0.0562*
- Self-Employed ( <i>only one</i> )	0.4245**	0.2657**	0.2794**	0.1749**	0.1011**	0.0633**
Experience ( <i>years spent in paid work</i> )	—	—	—	—	—	—
Home ownership (1 if <i>owned</i> )	0.0154**	0.0039*	0.0124*	0.0031*	0.0114**	0.0029**
Area-level variables (NUTS 1 level):						
- Long-term unemployment rate	0.0019	0.0219	0.0021	0.0214	0.0028	0.0039
- lnGDP per capita in PPS	-0.0025	-0.0045	-0.0037	0.0057	-0.0032	-0.0045
- Degree of urbanisat. (1 if <i>densely</i> )	0.0147	0.0324	0.0151	0.0215	0.0340	0.0121
Log likelihood	- 869.25	- 1,254.35	- 2,509.69	- 2,859.78	- 927.63	- 1,124.47

Source: Authors' elaborations on EU-SILC data (2005)

**Table 14 – Structural Multinomial Logit Models – France, Germany and Italy**

Independent variables	France		Germany		Italy	
	Employers	Own-account	Employers	Own-account	Employers	Own-account
Earnings differentials ( <i>ln</i> )	1.1147**	-0.0818*	1.7927***	-0.2156**	1.0475**	0.0004
Gender (1 if <i>male</i> )	0.3219***	0.2236***	0.5444***	0.2194***	0.3933***	0.2171***
Citizenship (1 if in <i>residence country</i> )	0.0157	-0.1295	0.2135	-.3489***	0.4656***	0.1746***
Age ( <i>years</i> )	-0.0150**	0.0244***	0.0181***	0.0195***	-0.0102***	-.0043***
Marital status (1 if <i>married</i> )	0.1895**	-0.0706	0.0545	-0.0983**	0.0741**	-0.0630**
Children (1 if <i>with children</i> )	0.1022	-0.0376	0.0977*	0.0058	0.0965***	-0.0034
Health (1 if <i>chronic health condition</i> )	-0.2034**	-0.0408	-0.0611	-0.0880**	-0.1413***	-0.0582**
Education level ( <i>low</i> as reference):						
- Medium (ISCED97: 3; 4)	0.3964***	0.0674	0.1829	0.1565*	0.0237*	-0.0125
- High (ISCED97: 5)	0.5346***	0.2249***	-0.6298***	0.4213***	-0.0431**	-1.1878***
Parent's education level ( <i>low</i> as ref.)						
- Medium (ISCED97: 3; 4)	-0.0063	-0.0787	0.2354***	0.0540	0.0997**	0.1071***
- High (ISCED97: 5)	0.2429**	0.2056***	0.3977***	0.1704***	0.1802**	0.2220***
Parental work status ( <i>neither</i> as ref.)						
- Self-Employed parent ( <i>both</i> )	0.4238***	0.2724***	0.5546***	0.4763***	0.5377***	0.3753***
- Self-Employed ( <i>only one</i> )	0.3854***	0.2412***	0.4690***	0.1871***	0.4982***	0.2826***
Experience ( <i>years spent in paid work</i> )	0.0256***	0.0065**	0.0099***	0.0210***	0.0206***	0.0016
Home ownership (1 if <i>owned</i> )	0.0201**	0.0198*	0.0147**	0.0074*	0.0124**	0.0258
Area-level variables (NUTS 1 level):						
- Long-term unemployment rate	0.0118*	0.0247**	0.0241*	0.0314**	0.0238*	0.0251*
- lnGDP per capita in PPS	-0.0012*	-0.0081**	-0.0019*	-0.0102*	-0.0027**	-0.0095*
- Degree of urbanisat. (1 if <i>densely</i> )	0.0119*	0.0314*	0.0211**	0.0273**	0.0019*	0.0029**
Log likelihood	- 2,281.51	- 2,978.35	- 3,690.56	- 3,925.14	11,836.75	13,845.14

Source: Authors' elaborations on EU-SILC data (2005)

**Table 15 – Structural Multinomial Logit Models – United Kingdom, Ireland**

Independent variables	United Kingdom		Ireland	
	Employers	Own-account	Employers	Own-account
Earnings differentials ( <i>ln</i> )	1.2386***	-0.0598*	1.4784***	0.0018*
Gender (1 if <i>male</i> )	0.4698***	0.3263***	0.5937***	0.4124***
Citizenship (1 if in <i>residence country</i> )	0.0555	0.4578	0.1652	-1.3626
Age ( <i>years</i> )	0.0439**	0.0714**	0.0985**	0.1602**
	0.1173***	0.0437***	0.0921*	0.0343*
Marital status (1 if <i>married</i> )	0.1873**	0.0689**	0.2814**	0.1035**
Children (1 if <i>with children</i> )	-0.1458**	-0.0292**	-0.1512**	-0.0303**
Health (1 if <i>chronic health condition</i> )				
Education level ( <i>low</i> as reference):				
- Medium (ISCED97: 3; 4)	0.0248*	0.0042*	0.0685*	0.0116*
- High (ISCED97: 5)	0.1897**	0.0798**	0.1027**	0.0432**
Parent's education level ( <i>low</i> as reference)				
- Medium (ISCED97: 3; 4)	0.1154***	1.4416***	0.1341**	1.6752**
- High (ISCED97: 5)	0.1515***	0.1282***	0.2000**	0.1693**
Parental work status ( <i>neither</i> as reference)				
- Self-Employed parent ( <i>both</i> )	0.3646***	0.2343***	0.3663**	0.2354**
- Self-Employed ( <i>only one</i> )	0.1772***	0.1109***	0.1689***	0.1057***
- Self-Employed ( <i>only one</i> )	0.1548**	0.0393**	0.1114**	0.0283**
Experience ( <i>years spent in paid work</i> )	—	—	—	—
Home ownership (1 if <i>owned</i> )	0.0215**	0.0145*	0.0985**	0.0142*
Area-level variables (NUTS 1 level):				
- Long-term unemployment rate	0.0118*	0.0121*	0.0101	0.0121*
- lnGDP per capita in PPS	-0.0012*	-0.0013**	-0.0015*	-0.0027**
- Degree of urbanisation (1 if <i>densely</i> )	0.0119*	0.0110*	0.0120*	0.0174**
Log likelihood	- 2,961.72	- 3,412.27	- 1,227.95	- 1,425.12

Source: Authors' elaborations on EU-SILC data (2005)

As explained above, only if the  $\alpha$  parameter related to the earnings differentials term is positive and significant, a relative earnings advantage in self-employment increase the likelihood of becoming self-employed. Among other things, it is interesting to note how in this work the predicted earnings differentials are positive with respect to employer vs employee differential in almost every country and negative with respect to the own-account vs employee differential. Really, several previous studies (Rees and Shah, 1986; Dolton and Makepeace, 1990; De Wit, 1993; Earle and Sakova, 2000) highlighted an unclear role of relative earnings in explaining self-employment choice since different results for the same countries using different data-sets and/or years are often shown. In particular, the negative coefficients on the own-account vs employee differentials in the most countries considered – in some cases, they are not statistically significant – imply that individuals frequently choose own-account status although they are predicted to earn less than they could as employees. In this sense, own-account status may represent a form of partial unemployment for some workers. Nevertheless, in Nordic countries also the coefficients on the employer vs employee differentials are negative and this may simply be telling us that pecuniary rewards are not always the only and main reason for choosing self-employment.

## **8. Some concluding remarks**

As widely discussed above, our analysis concerns eight capitalist economies of Western Europe with different welfare regime and its crucial aim is to explore some factors, especially in the spheres of family background, playing a significant role for understanding intergenerational im-mobility in terms of occupational decision-making. Main evidence underline, among other things, how the impact of the several determinants – *i.e.*, a rich set of predictors for individual characteristics and as proxy of the different forms of capital and institutional and socio-economic variations has been tested – differs across countries, where structural and institutional differences exist, and, above all, how the family-specific background strongly influences the choice to be an employer or own-account worker rather than a more traditional salaried.

Firstly, it is interesting to note how parents' education level and parental work status have significant positive effects on the probability to become self-employed and this propensity enhances when both the parents are (or were) self-employed themselves (second generation) and this is essentially due to the intergenerational transmission of methods, experience, skills and knowledge. In other words, self-employed parents might furnish role models and help in accessing to financial capital and business networks. In this light, it is also interesting to note how individual and parental educational levels play an important role in the determination of earnings and the returns to education increase when the level of schooling is higher.

Secondly, although with differences across countries (tab. 12-14), it is worth stressing how, in general, being a man with national citizenship, older and with more work experience increases the probability to enter self-employment (both employer or own-account worker) and how own-account workers are significantly more likely to be married with dependent children, while this is not true for employers. Nevertheless, everywhere men with more educated and self-employed parents are more likely to be self-employed themselves. Both employer and own-account status are often a poor choice for individuals in poor health, probably due to the fact that self-employment requires, on average, greater levels of concentration and stress and more work hours.

Thirdly, social protections systems consistently influence the employment decision-making and it is worth stressing how in the Nordic countries, despite a social democratic regime, the incidence of self-employment is rather lower than other countries with a more conservative or liberal regimes. In this light, our findings assert how a high level of employment protection may be a barrier to self-employment. As they say, a larger welfare state may discourage self-employment by crowding out private savings required to leverage start-up finance, especially if borrowing constraints exist (Fölster, 2002). Obviously, beyond the protection legislation, also the cultural values and orientations as well as the economic structure of a country play a significant role in determining levels and patterns

of self-employment and a joint interpretation of all these factors is requested to give some additional insights on the role of self-employment in the developed world and on their determinants. In this light, for example, our analysis underlines how people living in richer countries, in terms of higher GDP and lower unemployment rate, and so, more generally, with higher levels of “national economic well-being”, seem to be less likely to enter self-employment.

Finally, the negative coefficients on the own-account vs employee differentials in the most countries considered imply that individuals frequently choose own-account status although they are predicted to earn less than they could as employees. In this sense, own-account status may represent a form of partial unemployment for some workers or this may simply tell us that pecuniary rewards are not always the only and main reason for choosing self-employment.

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## Appendix A

**Table A1 – Self-employment rates in EU-26 countries by activity sector** (*continued*)

	AT	BE	CY	CZ	DE	DK	EE
Agriculture, hunting and forestry (A), Fishing (B)	64.47	53.47	54.97	15.32	33.66	45.56	24.96
Mining (C), Manufacturing (D), Electricity (E)	4.69	6.87	10.34	7.14	4.28	4.20	2.56
Construction (F)	8.84	31.07	20.29	38.77	14.31	15.02	6.86
Wholesale and retail trade, repairs (G)	8.72	19.77	16.37	25.30	9.13	9.92	9.47
Hotels and restaurants (H)	19.37	28.71	9.43	17.20	4.38	12.66	3.96
Transport, storage and communication (I)	4.43	4.35	11.40	14.95	6.26	5.93	5.44
Financial intermediation (J)	7.69	9.77	3.93	20.43	12.11	1.18	–
Real estate, renting and business activities (K)	15.65	17.38	17.32	32.80	28.86	16.87	12.47
Public administration... (L)	0.49	0.48	–	1.62	0.97	3.22	–
Education (M)	2.23	1.50	8.46	1.47	6.37	5.49	1.57
Health and social work (N)	7.88	12.76	10.88	7.65	9.62	3.92	3.45
Other services (O+P+Q)	15.00	16.88	18.07	28.32	20.01	13.98	14.72
Total	11.21	11.91	13.74	15.76	9.88	8.89	6.66
Non-farm sectors	8.21	10.96	12.55	15.77	9.45	7.83	5.48
Unpaid family workers (all sectors)	0.60	0.03	0.47	0.42	0.28	0.20	0.41

Source: Authors' elaborations on EU-SILC data (2005)

**Table A1 – Self-employment rates in EU-26 countries by activity sector** (*continued*)

	ES	FI	FR	GR	HU	IE	IS
Agriculture, hunting and forestry (A), Fishing (B)	41.45	65.45	47.54	70.20	29.25	70.73	36.81
Mining (C), Manufacturing (D), Electricity (E)	10.15	5.62	1.53	18.46	8.31	6.77	11.68
Construction (F)	16.82	21.99	12.79	33.95	26.47	25.2	16.01
Wholesale and retail trade, repairs (G)	25.19	15.53	11.01	36.27	19.63	12.19	14.02
Hotels and restaurants (H)	20.13	14.32	19.29	27.46	19.09	7.03	10.52
Transport, storage and communication (I)	15.71	11.73	4.08	20.93	12.87	18.09	10.77
Financial intermediation (J)	14.18	2.61	2.77	13.05	17.23	3.52	3.16
Real estate, renting and business activities (K)	21.34	17.69	7.60	36.81	30.74	20.85	16.69
Public administration... (L)	0.59	0.23	0.66	0.71	0.17	–	0.55
Education (M)	3.79	0.55	0.84	8.32	0.57	5.06	1.19
Health and social work (N)	7.22	3.73	9.54	12.06	5.12	3.89	6.19
Other services (O+P+Q)	14.68	19.95	10.59	20.40	30.77	20.72	20.11
Total	15.70	12.53	8.26	28.44	14.29	15.26	13.10
Non-farm sectors	14.12	10.02	6.59	22.89	13.45	11.94	11.49
Unpaid family workers (all sectors)	0.64	0.13	0.58	5.31	0.52	0.40	0.00

Source: Authors' elaborations on EU-SILC data (2005)

**Table A1 – Self-employment rates in EU-26 countries by activity sector** (*continued*)

	IT	LT	LU	LV	NL	NO	PL
Agriculture, hunting and forestry (A), Fishing (B)	40.87	45.95	65.3	29.57	52.26	61.17	63.51
Mining (C), Manufacturing (D), Electricity (E)	12.52	2.08	1.95	2.67	4.55	5.31	4.55
Construction (F)	30.09	7.78	1.94	9.86	18.59	19.35	15.48
Wholesale and retail trade, repairs (G)	38.97	14.52	7.72	10.12	15.73	8.17	20.36
Hotels and restaurants (H)	31.63	6.14	15.56	0.88	12.83	3.50	12.56
Transport, storage and communication (I)	18.97	2.23	1.38	3.71	5.34	7.62	12.30
Financial intermediation (J)	14.47	2.21	1.29	5.45	4.64	–	7.71
Real estate, renting and business activities (K)	38.88	11.02	14.23	12.58	15.34	15.71	17.32
Public administration... (L)	1.18	–	1.41	0.30	–	1.33	1.10
Education (M)	2.94	0.32	1.26	1.66	3.28	0.76	1.60
Health and social work (N)	10.72	1.61	6.82	1.99	3.53	3.83	6.63
Other services (O+P+Q)	22.86	9.45	5.66	13.82	34.43	26.56	10.79
Total	21.52	10.27	6.41	8.16	10.41	9.83	18.11
Non-farm sectors	20.43	5.32	4.87	5.74	9.18	7.91	9.73
Unpaid family workers (all sectors)	2.68	2.10	0.68	1.11	0.36	0.20	4.37

Source: Authors' elaborations on EU-SILC data (2005)

**Table A1 – Self-employment rates in EU-26 countries by activity sector** (*continued*)

	PT	SE	SI	SK	UK	EU-26
Agriculture, hunting and forestry (A), Fishing (B)	63.87	46.45	65.92	9.40	41.62	50.29
Mining (C), Manufacturing (D), Electricity (E)	11.40	4.02	3.54	6.60	5.48	6.64
Construction (F)	19.52	17.42	16.85	26.47	32.93	21.37
Wholesale and retail trade, repairs (G)	27.31	14.16	8.61	15.73	9.90	18.53
Hotels and restaurants (H)	27.39	18.08	16.57	10.61	12.27	18.09
Transport, storage and communication (I)	8.86	13.15	14.23	5.17	15.17	11.43
Financial intermediation (J)	8.65	6.25	2.02	25.09	2.15	8.68
Real estate, renting and business activities (K)	23.56	14.47	9.79	22.77	16.79	21.93
Public administration... (L)	0.14	0.43	–	0.55	1.30	0.87
Education (M)	1.77	0.64	0.59	0.67	4.81	3.36
Health and social work (N)	4.59	2.26	3.80	3.59	6.81	8.00
Other services (O+P+Q)	22.75	18.32	19.51	16.41	24.04	18.36
Total	18.60	8.75	8.34	9.91	11.70	13.60
Non-farm sectors	15.31	8.24	6.59	9.92	11.37	11.80
Unpaid family workers (all sectors)	0.96	0.00	0.02	0.03	0.00	1.09

Source: Authors' elaborations on EU-SILC data (2005)

**Table A2 – Self-Employment: Main individual characteristics across EU-26 countries**

Variable	AT	BE	CY	CZ	DE	DK	EE
Gender (1 if <i>male</i> )	64.75	66.59	67.44	69.54	60.73	74.06	64.11
Citizenship (1 if with nationality in the same country of residence)	95.29	92.42	89.67	96.70	85.91	93.82	86.09
Age ( <i>years</i> )	45.78	45.02	44.95	42.64	45.88	45.15	44.11
* Percent aged:							
- 16 to 24 years	1.69	1.11	3.43	2.93	1.33	0.42	2.89
- 25 to 34 years	14.80	17.95	16.42	25.06	13.58	14.46	18.43
- 35 to 44 years	28.72	31.39	27.37	25.48	30.84	35.03	28.97
- 45 to 54 years	29.90	26.57	30.60	30.58	29.79	29.12	31.10
- 55 to 64 years	24.89	22.97	22.18	15.96	24.47	20.98	18.61
Marital status (1 if <i>married</i> )	64.98	61.64	80.18	75.45	66.90	65.20	60.56
Children (1 if with children)	45.71	47.81	62.87	57.93	52.93	54.32	55.12
Health (1 if <i>chronic health condition</i> )	17.33	17.50	28.05	20.99	26.59	18.51	29.54
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	16.16	18.53	41.46	3.26	4.81	21.52	5.80
- Medium (ISCED97: 3; 4)	51.42	40.09	35.00	80.62	34.30	52.27	57.89
- High (ISCED97: 5; 6)	32.42	39.57	23.34	16.11	60.89	26.21	36.31
Experience ( <i>years spent in paid work</i> )	25.33	22.02	22.78	21.73	20.56	–	21.57
Home ownership (1 if <i>owned</i> )	72.60	76.52	78.51	79.66	59.51	81.71	89.17

Source: Authors' elaborations on EU-SILC data (2005)

**Table A2 – Self-Employment: Main individual characteristics across EU-26 countries**  
(continued)

	ES	FI	FR	GR	HU	IE	IS
Gender (1 if <i>male</i> )	66.24	65.33	64.44	67.10	65.01	75.20	71.22
Citizenship (1 if with nationality in the same country of residence)	97.10	98.63	93.13	97.14	98.35	95.24	98.38
Age ( <i>years</i> )	44.63	47.06	46.58	45.42	43.53	44.76	45.63
* Percent aged:							
- 16 to 24 years	2.41	1.93	0.97	1.56	2.58	1.09	1.36
- 25 to 34 years	19.78	12.56	14.04	17.26	20.80	17.67	12.95
- 35 to 44 years	28.33	23.59	27.29	27.69	28.44	30.66	28.54
- 45 to 54 years	24.93	33.54	30.48	28.47	27.61	31.45	36.05
- 55 to 64 years	24.56	28.38	27.22	25.02	20.57	19.14	21.10
Marital status (1 if <i>married</i> )	71.31	63.88	64.45	74.56	62.26	76.26	64.28
Children	49.79	43.90	47.66	46.31	52.03	64.48	55.15
Health (1 if chronic health condition)	17.77	38.16	25.57	14.28	25.57	15.64	20.43
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	54.38	27.48	24.76	51.36	9.98	31.96	31.75
- Medium (ISCED97: 3; 4)	22.40	46.18	45.33	31.35	68.62	34.84	51.34
- High (ISCED97: 5; 6)	22.12	26.34	29.72	16.36	21.40	32.80	16.91
Experience ( <i>years spent in paid work</i> )	23.01	–	23.98	–	27.97	–	–
Annual individual income							
Home ownership (1 if <i>owned</i> )	85.98	83.16	70.76	79.71	89.51	92.55	88.90

Source: Authors' elaborations on EU-SILC data (2005)

**Table A2 – Self-Employment: Main individual characteristics across EU-26 countries**  
(continued)

	IT	LT	LU	LV	NL	NO	PL
Gender (1 if <i>male</i> )	64.53	53.65	62.81	64.34	67.49	73.53	60.86
Citizenship (1 if with nationality in the same country of residence)	96.98	98.73	69.64	80.39	98.66	94.86	99.81
Age ( <i>years</i> )	43.91	42.79	45.85	43.11	44.57	44.98	44.57
* Percent aged:							
- 16 to 24 years	4.18	2.75	0.43	2.46	2.15	2.74	2.88
- 25 to 34 years	20.17	19.56	14.07	19.87	16.43	15.01	18.01
- 35 to 44 years	31.28	34.31	31.42	35.16	32.54	28.06	26.05
- 45 to 54 years	20.43	29.10	30.92	25.96	26.70	31.81	33.35
- 55 to 64 years	23.94	14.27	23.16	16.56	22.18	22.38	19.72
Marital status (1 if <i>married</i> )	64.31	70.6	61.26	62.82	66.35	55.75	78.45
Children	46.83	59.33	47.26	58.74	51.02	49.02	59.69
Health (1 if chronic health condition)	14.04	19.81	17.31	29.00	23.95	23.98	29.33
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	47.06	12.51	22.31	14.34	21.61	10.74	21.74
- Medium (ISCED97: 3; 4)	38.05	71.82	44.94	65.65	42.40	64.01	67.27
- High (ISCED97: 5; 6)	14.73	15.54	32.59	20.01	35.99	25.26	10.99
Experience ( <i>years spent in paid work</i> )	19.36	18.89	23.41	21.55	20.39	–	21.30
Home ownership (1 if <i>owned</i> )	74.16	86.86	78.18	86.35	78.37	86.38	80.26

Source: Authors' elaborations on EU-SILC data (2005)

**Table A2 – Self-Employment: Main individual characteristics across EU-26 countries**  
(continued)

	PT	SE	SI	SK	UK	EU-26
Gender (1 if <i>male</i> )	56.50	73.92	69.35	69.18	68.48	65.46
Citizenship (1 if with nationality in the same country of residence)	97.96	95.63	–	99.75	94.91	95.45
Age ( <i>years</i> )	46.34	46.17	44.35	41.15	45.57	44.99
* Percent aged:						
- 16 to 24 years	2.39	2.11	2.61	5.19	3.10	2.56
- 25 to 34 years	13.74	13.41	16.16	26.11	14.44	16.91
- 35 to 44 years	27.96	28.15	29.14	28.33	28.82	29.22
- 45 to 54 years	26.49	29.00	35.10	30.02	27.13	27.53
- 55 to 64 years	29.42	27.33	17.00	10.35	26.51	23.77
Marital status (1 if <i>married</i> )	79.92	55.82	63.21	77.99	64.06	68.34
Children	54.35	50.79	58.34	63.46	43.33	49.98
Health (1 if <i>chronic health condition</i> )	28.50	33.31	27.32	21.09	32.30	22.04
* Percent education level:						
- Low (ISCED97: 0; 1; 2)	76.24	19.26	19.67	3.55	19.06	30.94
- Medium (ISCED97: 3; 4)	8.21	59.03	72.88	76.17	50.21	43.01
- High (ISCED97: 5; 6)	7.85	21.71	7.45	20.29	30.66	25.52
Experience ( <i>years spent in paid work</i> )	26.69	–	22.81	20.64	–	21.63
Home ownership (1 if <i>owned</i> )	80.85	79.89	88.27	85.05	81.05	77.10

Source: Authors' elaborations on EU-SILC data (2005)

**Table A3 – Wage-Employment: Main individual characteristics across EU-26 countries**

Variable	AT	BE	CY	CZ	DE	DK	EE
Gender (1 if <i>male</i> )	50.01	50.36	49.05	47.67	47.81	51.56	46.93
Citizenship (1 if with nationality in the same country of residence)	92.05	91.89	84.27	98.78	91.09	95.68	81.98
Age ( <i>years</i> )	40.70	42.30	40.40	42.25	42.91	41.52	41.92
* Percent aged:							
- 16 to 24 years	12.19	6.67	8.74	7.53	8.35	7.23	9.57
- 25 to 34 years	21.01	22.48	27.56	26.37	18.17	22.28	22.96
- 35 to 44 years	27.79	26.59	25.58	20.84	27.93	29.01	23.44
- 45 to 54 years	21.87	25.44	22.51	22.68	24.31	25.49	24.34
- 55 to 64 years	17.13	18.81	15.61	22.58	21.24	15.99	19.69
Marital status (1 if <i>married</i> )	59.33	58.05	74.02	63.90	61.70	55.07	49.33
Children (1 if with children)	46.10	45.52	61.85	43.75	53.35	46.58	51.93
Health (1 if <i>chronic health condition</i> )	16.73	20.96	19.26	25.23	30.34	19.81	30.43
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	18.34	23.74	26.75	10.53	11.31	22.89	11.84
- Medium (ISCED97: 3; 4)	64.51	36.44	41.06	77.42	53.79	47.62	59.49
- High (ISCED97: 5; 6)	17.15	36.43	31.94	12.05	34.89	29.49	28.67
Experience ( <i>years spent in paid work</i> )	19.56	18.66	17.15	20.78	20.08	–	19.69
Home ownership (1 if <i>owned</i> )	56.87	71.54	74.88	74.40	57.45	71.69	91.01

Source: Authors' elaborations on EU-SILC data (2005)

**Table A3 – Wage-Employment: Main individual characteristics across EU-26 countries**  
(continued)

	ES	FI	FR	GR	HU	IE	IS
Gender (1 if <i>male</i> )	52.49	49.38	48.94	53.09	46.09	49.54	48.95
Citizenship (1 if with nationality in the same country of residence)	95.24	98.81	93.94	93.31	99.39	93.82	96.91
Age ( <i>years</i> )	39.32	42.15	41.64	40.03	42.28	38.23	38.72
* Percent aged:							
- 16 to 24 years	10.80	8.78	9.41	8.79	7.40	19.61	17.90
- 25 to 34 years	29.35	21.15	23.44	29.09	25.78	24.83	23.40
- 35 to 44 years	26.03	24.95	25.00	25.83	20.48	19.58	23.34
- 45 to 54 years	20.13	25.55	22.04	21.51	25.69	23.30	20.90
- 55 to 64 years	13.68	19.57	20.11	14.77	20.65	12.68	14.87
Marital status (1 if <i>married</i> )	59.50	49.90	55.05	63.26	55.62	51.22	45.80
Children	49.05	40.79	50.21	50.11	46.83	56.23	55.78
Health (1 if chronic health condition)	16.60	36.61	28.32	10.74	35.50	15.59	23.33
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	45.28	17.95	29.53	30.82	25.03	31.50	35.60
- Medium (ISCED97: 3; 4)	23.81	45.59	45.55	42.89	58.68	37.27	41.89
- High (ISCED97: 5; 6)	29.31	36.46	24.49	26.06	16.29	30.94	22.51
Experience ( <i>years spent in paid work</i> )	16.36	–	18.84	–	25.43	–	–
Home ownership (1 if <i>owned</i> )	83.20	68.69	58.32	69.35	88.22	80.44	85.19

Source: Authors' elaborations on EU-SILC data (2005)

**Table A3 – Wage-Employment: Main individual characteristics across EU-26 countries**  
(continued)

	IT	LT	LU	LV	NL	NO	PL
Gender (1 if <i>male</i> )	52.13	47.43	50.35	46.91	54.93	51.68	48.91
Citizenship (1 if with nationality in the same country of residence)	94.28	98.84	56.86	80.52	98.48	96.02	99.78
Age ( <i>years</i> )	42.07	41.94	41.85	41.82	40.73	39.89	41.55
* Percent aged:	8.30						
- 16 to 24 years	22.64	8.02	7.31	10.10	10.11	12.45	8.21
- 25 to 34 years	27.88	23.52	22.25	22.02	23.56	23.86	25.86
- 35 to 44 years	20.78	25.97	28.39	24.15	27.32	26.35	21.48
- 45 to 54 years	20.39	23.40	24.88	24.07	22.99	22.50	26.71
- 55 to 64 years	60.38	19.09	17.18	19.66	16.02	14.84	17.75
Marital status (1 if <i>married</i> )	47.36	65.81	64.25	50.49	54.87	47.52	68.69
Children	15.31	54.26	50.76	49.82	45.21	48.21	56.58
Health (1 if chronic health condition)		24.90	19.66	29.36	27.53	22.58	26.12
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	45.84	11.71	37.07	17.87	24.80	8.03	12.64
- Medium (ISCED97: 3; 4)	40.81	62.03	39.35	62.81	42.24	59.30	69.88
- High (ISCED97: 5; 6)	13.10	26.17	23.25	19.27	32.68	32.67	17.46
Experience ( <i>years spent in paid work</i> )	16.99	19.02	18.65	20.02	16.47	–	17.68
Home ownership (1 if <i>owned</i> )	72.15	88.31	69.03	76.98	66.80	82.45	50.79

Source: Authors' elaborations on EU-SILC data (2005)

**Table A3 – Wage-Employment: Main individual characteristics across EU-26 countries**  
(continued)

	PT	SE	SI	SK	UK	EU-26
Gender (1 if <i>male</i> )	49.52	48.63	51.29	46.14	46.84	49.48
Citizenship (1 if with nationality in the same country of residence)	96.67	95.97	–	99.58	94.17	94.47
Age ( <i>years</i> )	40.21	42.19	41.42	42.13	40.60	41.46
* Percent aged:						
- 16 to 24 years	10.09	8.65	5.24	8.83	13.55	9.68
- 25 to 34 years	27.86	22.63	25.20	23.15	21.68	23.05
- 35 to 44 years	24.43	24.90	21.16	22.19	24.78	25.66
- 45 to 54 years	21.40	22.56	27.31	26.14	21.07	22.78
- 55 to 64 years	16.22	21.26	13.09	19.69	18.93	18.83
Marital status (1 if <i>married</i> )	65.15	44.45	57.04	69.84	51.82	58.64
Children	56.39	45.47	59.01	56.06	42.65	49.07
Health (1 if <i>chronic health condition</i> )	23.11	35.71	27.39	23.13	30.91	25.29
* Percent education level:						
- Low (ISCED97: 0; 1; 2)	66.84	11.95	18.86	7.33	17.44	25.02
- Medium (ISCED97: 3; 4)	15.10	56.19	66.90	76.21	47.78	48.20
- High (ISCED97: 5; 6)	13.87	31.86	14.23	16.46	34.71	26.34
Experience ( <i>years spent in paid work</i> )	19.59	–	20.65	21.28	–	18.61
Home ownership (1 if <i>owned</i> )	72.80	67.78	82.26	84.58	72.55	67.15

Source: Authors' elaborations on EU-SILC data (2005)

**Table A4 – Self-Employment and Wage-Employment (whole sample): Main individual characteristics across EU-26 countries**

Variable	AT	BE	CY	CZ	DE	DK	EE
Gender (1 if <i>male</i> )	51.52	52.06	51.45	50.46	48.85	46.48	47.90
Citizenship (1 if with nationality in the same country of residence)	92.38	91.94	84.98	98.52	90.68	95.52	82.21
Age ( <i>years</i> )	40.11	39.93	38.20	39.72	43.15	41.84	38.94
* Percent aged:							
- 16 to 24 years	11.12	6.09	8.05	6.94	7.79	6.64	9.19
- 25 to 34 years	20.38	22.00	26.11	26.21	17.80	21.60	22.70
- 35 to 44 years	27.89	27.10	25.81	21.43	28.17	29.54	23.75
- 45 to 54 years	22.70	25.56	23.56	23.69	24.75	25.81	24.72
- 55 to 64 years	17.93	19.25	16.47	21.74	21.50	16.43	19.63
Marital status (1 if <i>married</i> )	59.91	58.43	74.82	65.38	62.12	55.95	49.96
Children (1 if with children)	46.06	45.76	61.99	45.57	53.32	47.25	52.11
Health (1 if <i>chronic health condition</i> )	16.80	20.60	20.40	24.70	30.04	19.71	30.38
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	18.12	23.19	28.67	9.60	10.79	22.77	11.50
- Medium (ISCED97: 3; 4)	63.17	36.82	40.27	77.83	52.22	48.02	59.40
- High (ISCED97: 5; 6)	18.71	36.76	30.81	12.57	36.99	29.21	29.10
Experience ( <i>years spent in paid work</i> )	20.14	18.98	17.88	20.89	20.12	–	19.80
Home ownership (1 if <i>owned</i> )	58.54	71.84	76.88	74.91	57.62	72.57	90.80

Source: Authors' elaborations on EU-SILC data (2005)

**Table A4 – Self-Employment and Wage-Employment (whole sample): Main individual characteristics across EU-26 countries (continued)**

	ES	FI	FR	GR	HU	IE	IS
Gender (1 if <i>male</i> )	54.36	48.73	50.10	56.84	48.11	47.55	51.81
Citizenship (1 if with nationality in the same country of residence)	95.50	98.79	93.89	94.34	99.28	93.98	97.09
Age ( <i>years</i> )	38.95	42.73	41.94	39.52	39.81	38.96	38.49
* Percent aged:							
- 16 to 24 years	9.66	7.97	8.89	6.86	6.89	17.52	15.77
- 25 to 34 years	28.05	20.13	22.86	25.93	25.25	24.02	22.06
- 35 to 44 years	26.35	24.79	25.14	26.33	21.33	20.83	24.01
- 45 to 54 years	20.79	26.49	22.56	23.37	25.90	24.22	22.49
- 55 to 64 years	15.16	20.61	20.55	17.51	20.64	13.41	15.67
Marital status (1 if <i>married</i> )	61.11	51.55	55.63	66.28	56.33	54.05	48.20
Children	49.15	41.16	50.06	49.09	47.38	57.17	55.70
Health (1 if chronic health condition)	16.76	36.76	28.15	11.69	34.44	15.60	22.97
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	46.52	19.07	29.24	36.31	23.42	31.65	35.11
- Medium (ISCED97: 3; 4)	23.62	45.66	45.54	39.81	59.74	36.99	43.10
- High (ISCED97: 5; 6)	28.33	35.27	24.81	23.46	16.83	31.15	21.79
Experience ( <i>years spent in paid work</i> )	17.27	–	19.16	–	25.53	–	–
Home ownership (1 if <i>owned</i> )	83.90	70.40	59.09	72.66	88.33	81.57	85.63

Source: Authors' elaborations on EU-SILC data (2005)

**Table A4 – Self-Employment and Wage-Employment (whole sample): Main individual characteristics across EU-26 countries (continued)**

	IT	LT	LU	LV	NL	NO	PL
Gender (1 if <i>male</i> )	45.51	47.94	51.10	48.07	56.35	53.37	50.69
Citizenship (1 if with nationality in the same country of residence)	94.79	98.83	57.64	80.51	98.50	95.93	99.78
Age ( <i>years</i> )	42.42	38.75	39.72	39.42	40.44	39.75	38.65
* Percent aged:							
- 16 to 24 years	7.52	7.59	6.89	9.59	9.21	11.70	7.41
- 25 to 34 years	22.17	23.19	21.75	21.87	22.75	23.18	24.69
- 35 to 44 years	28.53	26.65	28.59	24.89	27.91	26.48	22.16
- 45 to 54 years	20.72	23.87	25.24	24.20	23.41	23.22	27.70
- 55 to 64 years	21.07	18.69	17.54	19.45	16.71	15.42	18.05
Marital status (1 if <i>married</i> )	61.13	66.21	64.07	51.31	56.17	48.15	70.14
Children	47.26	54.67	50.55	50.42	45.87	48.27	57.05
Health (1 if chronic health condition)	15.07	24.48	19.52	29.34	27.16	22.69	26.60
* Percent education level:							
- Low (ISCED97: 0; 1; 2)	46.07	11.78	36.19	17.63	24.44	8.24	14.00
- Medium (ISCED97: 3; 4)	40.29	62.83	39.69	63.00	42.25	59.66	69.49
- High (ISCED97: 5; 6)	13.41	25.30	13.81	19.32	33.03	32.10	16.50
Experience ( <i>years spent in paid work</i> )	17.44	19.01	18.88	20.12	16.86	–	18.21
Home ownership (1 if <i>owned</i> )	72.53	88.15	71.33	77.74	65.48	80.38	55.79

Source: Authors' elaborations on EU-SILC data (2005)

**Table A4 – Self-Employment and Wage-Employment (whole sample): Main individual characteristics across EU-26 countries (*continued*)**

	PT	SE	SI	SK	UK	EU-26
Gender (1 if <i>male</i> )	50.73	49.16	52.75	48.02	50.88	51.40
Citizenship (1 if with nationality in the same country of residence)	96.90	95.94	–	99.59	94.25	94.59
Age ( <i>years</i> )	39.34	42.54	39.48	38.43	41.13	39.91
* Percent aged:						
- 16 to 24 years	8.75	8.08	5.03	8.53	12.45	8.82
- 25 to 34 years	25.41	21.82	24.47	23.39	20.91	22.31
- 35 to 44 years	25.05	25.19	29.16	22.69	25.21	26.09
- 45 to 54 years	22.28	23.12	27.94	26.46	21.70	23.35
- 55 to 64 years	18.51	21.79	13.41	18.93	19.73	19.42
Marital status (1 if <i>married</i> )	67.71	45.44	57.54	70.50	53.11	59.80
Children	56.04	45.94	58.96	56.66	42.72	49.18
Health (1 if <i>chronic health condition</i> )	24.05	35.52	27.38	22.97	31.05	24.94
* Percent education level:						
- Low (ISCED97: 0; 1; 2)	68.47	12.59	18.92	7.02	17.60	25.73
- Medium (ISCED97: 3; 4)	13.90	56.44	67.38	76.20	48.03	47.57
- High (ISCED97: 5; 6)	12.82	30.98	13.69	16.77	34.30	26.24
Experience ( <i>years spent in paid work</i> )	20.81	–	20.78	21.23	–	18.92
Home ownership (1 if <i>owned</i> )	75.25	68.84	83.81	84.17	73.45	68.35

Source: Authors' elaborations on EU-SILC data (2005)