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Intergenerational correlation of self-employment in European countries*

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Abstract

We analyze the existence of a long-run intergenerational correlation of self-employment in Europe, providing cross-country comparative evidence. Using the 2011 special module on Intergenerational Transmission of the European Union Statistics on Income and Living Conditions (EU-SILC), we analyze the correlations between the current self-employment status of respondents, and that of their parents when respondents were 14 years old, in nine European countries. After controlling for both individual and macroeconomic observable factors, our estimates show that the intergenerational correlation of self-employment is strong between men and their fathers, while it is not robust for females. Furthermore, working in the same occupation as parents appears to be a strong channel of intergenerational correlation of self-employment.

Keywords: Intergenerational transmission; self-employment; EU-SILC data.

JEL Codes: D65; J62; E24.

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1. Introduction

This paper explores the long-run intergenerational correlation of self-employment status, with comparisons across nine European countries.¹ The study of intergenerational transmission is important in fields such as Economics, Industrial Relations, and Demography, as it investigates how and to what extent certain factors can be transmitted from parents to children. Those factors include income and poverty, education and skills, human development, occupational choices, and self-employment, among others. Attributes such as education and human, financial, and social capital have been found to be associated with employment and self-employment (Dunn and Holtz-Eakin, 2000; Fairlie and Robb, 2007) and prior research has shown that these values can be transmitted both horizontally (i.e., weak ties) and vertically (i.e., intergenerational transmission, or strong ties).

The existing research has identified the intergenerational transmission of employment and self-employment status, although the literature on employment is scarce and relatively novel (Galassi, Koll and Mayr, 2019). Such transmission is a particular case of intergenerational socio-economic mobility, whereby the status of individuals within households is assumed to be transmitted from one generation to the next. Transmission of employment and unemployment status also supposes a particular case of intergenerational transmission of poverty, which has received significant attention in recent years. Unemployment is considered, indeed, one of the main labor-related issues of young workers in Europe (Mäder et al., 2015), especially in the Mediterranean countries, with youth unemployment rates well above 20%. Given the importance of family background and parents' investments in the future socio-economic status of their children (Carneiro, Meghir and Parey, 2013; Del Boca, Flinn and Wiswall, 2016; Chiappori, Salanié and Weiss 2017), it is important to study the intergenerational correlations of employment and self-employment as a factor contributing to the children's socio-economic well-

¹ Self-employment and/or entrepreneurship is related to factors, not only academic, but institutional and political. Normally, the analysis of entrepreneurship is carried out under a macroeconomic approach, based on governmental, institutional and taxpayer support (Barrado et al., 2015, Molina et al., 2016a, 2016b). However, this methodology allows to analyze the aggregate effect of the level of entrepreneurship, not the individual attributes that determine the entrepreneur. Entrepreneurship has generated a large national and international literature that compares the work decisions of wage earners with those of entrepreneurs (Giménez et al., 2015; Campaña et al., 2016, 2020). In addition, entrepreneurial decisions are also related to a large number of socio-demographic and economic variables that condition the entrepreneurial activity of individuals, such as gender, age, education, mobility, activities within the home or their finances (Campaña et al. 2017; Giménez et al., 2012, 2016, 2018, 2020; Molina, 2020; Molina et al., 2016c).

being. The literature has shown a positive correlation between young workers' employment and unemployment status, on the one hand, and that of their parents, on the other, in various countries (O'Neill and Sweetman, 1998; Corak, Gustafsson and Österberg, 2004; Bratberg, Anti Nilsen and Vaage, 2008; Ekhaugen, 2009; Macmillan, 2010; Gregg, Macmillan and Nasim, 2012). Nevertheless, there is no consensus as to the channels, or the extent, of these transmissions, with results that differ significantly among countries and methods.

Within this framework, we explore the long-run intergenerational transmission of self-employment in nine European countries, empirically estimating the relationship between the labor status of adult offspring and that of their parents when the children were 14 years old. Europe is a particularly important region in which to study these transmissions, given the large impact of the recent economic crisis on unemployment in European countries, and the moderating role of family background on that impact (Mascherini, 2019). In doing so, we use the 2011 special module on Intergenerational Transmissions of Disadvantages of the EU-SILC data for Austria, Belgium, France, Greece, Luxembourg, Netherlands, Spain, Sweden, and the UK.² This special module allows us to estimate the current self-employment status of respondents, and that of their parents, when respondents were around 14 years old. Estimates show a strong and significant intergenerational correlation of self-employment, which is especially relevant between men and their fathers, and point to working in the same occupation as parents being a strong channel for such transmission.

We contribute to the literature in several ways. First, we document a significant long-run transmission of employment status between fathers and sons, and between mothers and daughters. Individuals have a higher probability of being self-employed if their parents were self-employed and, beyond that, if they work in the same occupation as that of their parents. This suggests that business inheritance may be an additional channel for intergenerational self-employment. Cross-country results indicate that these intergenerational correlations do not hold homogeneously for the nine analyzed countries, indicating important cross-country differences. It is worth noting that most of the empirical research on intergenerational transmission has focused on single countries, and international and cross-country analyses are quite limited. To the best of our knowledge, this paper represents the first cross-country comparison of the long-

² GEM is another relevant data base (e.g. Molina et al., 2017; Giménez et al., 2019; Velilla et al., 2018, 2020).

run intergenerational correlation of self-employment status. Future research should focus on investigating the specific channels that drive this long-term transmission.

The remainder of the paper is organized as follows. Section 2 presents the data used throughout the analysis. Section 3 sets out the empirical strategy, and Section 4 shows the main estimates and discusses the different results. Finally, Section 5 concludes.

2. Data and variables

We use data from the European Union Statistics on Income and Living Conditions (EU-SILC) Special Module on Intergenerational Transmission of Disadvantages (ITD), for the year 2011, and the following countries: Austria, Belgium, France, Greece, Luxembourg, the Netherlands, Spain, Sweden, and the UK.³ The EU-SILC data is gathered every year by Eurostat (since 2003), and combines data at the household and individual levels, for all working-age individuals of the interviewed households. The main purpose of the special module is to collect information about household and parents' characteristics when respondents were 14 years old, for individuals between 25 and 59 years old. Fathers (mothers) refer to the individual that the respondent considers their father (mother), which in general refers to the biological father (mother). However, if respondents consider someone else to be the father (mother), the responses should refer to that individual. Unfortunately, there is no information about whether information refers to the biological father (mother) or not. Given that intergenerational transmissions are often identified from long-term correlations, or effects, from parents to children (see e.g., Solon, 1992, 2002), it is crucially important to analyze intergenerational correlations between the current employment status of individuals and the *past* employment status of their parents. Otherwise, estimates would not reflect intergenerational correlations but only short-term labor supply decisions.

The sample is restricted to individuals who completed the ITD (aged between 25 and 59 years old), for whom there is information for both parents, i.e., information about both parents when the respondent was 14 years old. Individuals for whom there is only information for the father or the mother are studied separately. The employment status of individuals is defined in

³ Access to the data has been granted by Contract RPP 119/2018 for the period 01/01/2018-30/06/2023. The sample is restricted to countries with information on the variables of interest.

the EU-SILC data in terms of the question: “labour information/basic labour information on current activity and on current job”. The possible categories are: 1) Employee (full-time). 2) Employee (part-time). 3) Self-employed worker (full-time, including family workers). 4) Self-employed worker (part-time, including family workers). 5) Unemployed. 6) Pupil, student, in training or in unpaid work experience. 7) In retirement, early retirement or given up business. 8) Permanently disabled or unfit to work. 9) In compulsory military service or community service. 10) Fulfilling domestic tasks and care responsibilities. 11) Other inactive person. With these classifications, we define employees from categories (1) and (2), and self-employed workers from categories (3) and (4). All other respondents are omitted from the analysis. Sample restrictions give us a sample of 46,761 are employees, and 9,006 are self-employed workers. Furthermore, 5,012 individuals live in Austria, 4,599 in Belgium, 12,758 in France, 2,876 in Greece, 17,897 in Luxembourg, 5,392 in the Netherlands, 4,597 in Spain, 1,572 in Sweden, and 4,639 in the UK.

The EU-SILC data allows us to define certain control variables. This includes the gender of individuals, measured with a dummy variable (“being male”) that takes value 1 for men, 0 for women; the age of respondents, measured in years (and age squared); the marital status of individuals, measured with a dummy that identifies those who have never been married over their life cycle (value 1, 0 otherwise); and the maximum level of education achieved by individuals is measured using the International Standard Classification of Education. From this information, we define two educational dummy variables: “secondary education”, which takes value 1 for those who have a secondary but non-compulsory level of formal education (0 otherwise); and “University education”, which takes value 1 if individuals have a University education. Thus, individuals who do not have secondary education are taken as the reference category. We define some variables at the household level, including the total household disposable income (measured in Euros per year, divided by 1,000), the type of dwelling (including two dummies for those who live in a house, or in an apartment or flat), and the number of children present in the household, to control for household structure, which is an important determinant of self-employment.

The information available about parents in the special module on ITD allows us to define sociodemographic variables, including age, education level, and immigrant status, in the year in which the respondent was aged 14. The maximum level of education of parents is defined in a four-scale rank, including: 0) “Father could neither read nor write in any language”; 1) “Low

level (pre-primary, primary education or lower secondary education)”; 2) “Medium level (upper secondary education and post-secondary non-tertiary education)”; and 3) “High level (first and second stage of tertiary education)”. We then define two dummies for the father (mother): secondary education (category 2); and University education (category 3). The number of children in the household when the respondent was aged 14 is also taken from the special module. The employment status of the parents when the respondent was aged 14 includes the following categories: 1) “Employed”, 2) “Self-employed (including family worker)”, 3) “Unemployed”, 4) “In retirement or in early retirement or had given up business”, 5) “Fulfilling domestic tasks and care responsibilities”, and 6) “Other inactive person”. Thus, we can straightforwardly identify those respondents whose parent was an employee (category 1) or a self-employed worker (category 2). Finally, the special module includes a variable measuring the financial situation of the household when the respondent was aged 14, taking values from 1 (“very bad”) to 6 (“very good”).⁴ Summary statistics of variables are shown in Table 1.

3. Empirical strategy

We regress the current self-employment status of respondents, in terms of their parents’ self-employment status when respondents were 14 years old, defined from the ITD special module. Assume that i represents the reference individual of household j , and that M and F refer to the mother and the father. The following equation is estimated using OLS:

$$S_{ij} = \beta_0 + \beta_1 X_{ij} + \sum_{k=M,F} (\beta_{2k} S_{kj}^{ITD} + \beta_{3k} X_{kj}^{ITD}) + \beta_4 X_j^{ITD} + \varepsilon_{ij} \quad (1)$$

where S_{ij} is a dummy variable indicating whether individuals are self-employed (value 1; 0 if employees) at the time of the interview (i.e., the year 2011). S_{kj}^{ITD} is a dummy variable indicating whether parents were self-employed when respondents were 14 years old, for $k = M, F$, respectively. X_{ij} represents the current socio-demographics of household j and individual ij ,

⁴ It is important to control for household finances, both at the current date and at the date of the ITD, to control for the well-known transmission of inequality and income (see e.g., Barbieri, Bloise and Raitano, 2019; Borisov and Pissarides, 2019). Furthermore, income is correlated with cohabitation decisions (Manacorda and Moretti, 2006), and thus it is important as cohabitation is also correlated with employment (Giuliano, 2007).

while X_{kj}^{ITD} represents parents' past sociodemographics, for $k = M, F$, and X_j^{ITD} represents household attributes from the ITD. Finally, ε_{ij} represents the error term.

Given that the EU-SILC includes information about respondents and parents' occupations, we additionally estimate the following equation:

$$S_{ij} = \beta_0 + \beta_1 X_{ij} + \sum_{k=M,F} (\beta_{2k} S_{kj}^{ITD} + \beta_{3k} O_{kj}^{ITD} + \beta_{4k} S_{kj}^{ITD} O_{kj}^{ITD} + \beta_{5k} X_{kj}^{ITD}) + \beta_6 X_j^{ITD} + \varepsilon_{ij} \quad (2)$$

where O_{kj}^{ITD} is a dummy that takes value 1 if individual ij has the same occupation at the current date as his father ($k = F$) or mother ($k = M$) when the respondent was 14 years old. Thus, Equation (2) allows us to analyze whether working in the same occupation as the father or the mother is a significant channel of the long-run transmission of self-employment status from parents to children.

Equations (1) and (2) are estimated separately for men and women, to study whether fathers and mothers may play different roles for sons and daughters.⁵ All the estimates include specific sample weights provided by the EU-SILC. Standard errors are clustered at the country level, to partially deal with the degree of heterogeneity among European countries. Furthermore, all equations include parents' occupation fixed effects, and respondents' occupation fixed effects.

Since the estimated intergenerational correlation between the (self) employment status of parents and children may depend on different characteristics at the country level, we use other controls in order to capture different dimensions, both at the date of the interview (i.e., the year 2011), and the year that the ITD special module corresponds to. First, we systematically control for the unemployment level of countries, taken from the Eurostat. Second, we control for the fertility level of countries, taken from the World Development Indicators database, defined as births per woman. Third, we control for the nest-leaving index of countries in the year 2011 (Giuliano, 2007), defined as the "share of young adults aged 18-34 living with their parents, by age and sex", and taken from the Eurostat. Fourth, we control for the female labor force

⁵ We have estimated potential multicollinearity issues arising from including in the same equation the employment status of both the mother and the father of respondents. However, according to variance inflation factors (VIF), estimates do not suffer from this issue, as the estimated VIF between the employment status of parents is 1.16, and the VIF between the self-employment status of parents is 1.03, both well below the standard threshold of 5. See Sheather (2009).

participation rate, taken from the Eurostat. Finally, as employment and labor supply decisions may be influenced by social norms and culture (Vollebergh, Iedema and Raaijmakers, 2001; Levine and Hoffner, 2006; Marcén, 2014), we use ancillary data from the European Values Surveys for the years 1981, 1990, 1999, and 2008, and define three items: “women need children in order to be fulfilled”, “woman single parent, no stable relationship with man”, and “important in marriage: share household chores”. Details are available upon request.

4. Results

4.1 Pooled estimates

Table 2 shows the estimates for the long-run intergenerational correlation of self-employment. Columns (1) and (2) show estimates of Equation (2) on male and female employed respondents, respectively, whereas Columns (3) and (4) show similar estimates of Equation (3), i.e., controlling for whether respondents work in the same occupation as their parents. The main coefficients appear not to change in the presence of these additional controls, in Columns (3) and (4). For instance, estimates point to the existence of a strong and significant long-run intergenerational correlation of self-employment. Focusing on Columns (3) and (4), results indicate that if the father was self-employed in the past, there is an increase of about 9.2 (2.1) percentage points in the probability of men (women) being self-employed at the date of the interview. On the other hand, if the mother was self-employed during the respondent’s childhood, the probability of the respondent being self-employed at the date of the interview increases by 5.9 (4.4) percentage points for male (female) respondents. These estimates suggest that the transmission of self-employment is stronger for men than for women, specifically driven by the father-to-son correlation, which is statistically larger than the similar correlation for women at standard levels ($p < 0.001$). The coefficient associated with the mothers’ self-employed status is not different for women and men ($p = 0.538$). Furthermore, among men, the correlation with the father is stronger than with the mother ($p = 0.086$), while among women the correlation is stronger with the mother ($p = 0.051$).

Estimates for men in Column (3) reveal a negative and significant correlation between the self-employment status of respondents and the fact that they work in the same occupations as their father, in the past. Nevertheless, the interaction results between working in the same occupation as the father, and the self-employment status of the father are positive and highly

significant. If the father was self-employed in the past, and both the respondent and the father have the same occupation, the probability of the respondent being self-employed increases by 23.8 percent. Similarly, if the mother was self-employed in the past, and both the respondent and the mother have the same occupation, the probability of the respondent being self-employed increases by 10.7 percent. For women, if the father (mother) was self-employed in the past, and both the respondent and the father (mother) have the same occupation, the probability of the respondent being self-employed increases by 11.9 (15.3) percent.⁶ These correlations suggest that working in the same occupation as the parents, conditional on the parents being self-employed, is a significant channel for the long-run intergenerational transmission of self-employment, with the father being especially important for men, while both the mother and the father are similarly important for women. Unfortunately, the data does not allow us to analyze causal results and, consequently, the estimated coefficients must be taken cautiously.

For the rest of the explanatory variables, estimated coefficients are similar in Columns (1) and (3), and Columns (2) and (4), indicating that controlling for whether individuals and their parents work in the same occupation does not produce confounding estimates. For instance, age and the probability of being self-employed are correlated according to an “inverted-U” shape, for both men and women. The marital status of women is significantly correlated with their probability of being self-employed, as women who have never been married have a lower probability of being self-employed than their married counterparts, in line with different theories of self-employment as a strategy that allows for better work-family balance for women (Lombard, 2007; Arai, 2008; Gimenez-Nadal, Molina and Ortega, 2012; Campaña, Giménez-Nadal and Molina, 2020). Education, however, is not significantly correlated with self-employment, neither for men nor women. Household income at the date of the interview is not significantly correlated with self-employment among women, while for men the correlation is negative and significant at the 90% level only, indicating that self-employment may be a source of income for low-income households (e.g., the so called “necessity-driven” entrepreneurs, see Reynolds et al., 2003), in line with Ardanga and Lusardi (2010). On the other hand, dwelling

⁶ For men, the coefficient associated with the interaction with the father is stronger than the one associated with the mother ($p = 0.015$). For women, both coefficients are statistically similar ($p = 0.420$). Furthermore, the interaction with the father is stronger for men than for women ($p = 0.006$), while the interaction with the mother is similar for both ($p = 0.401$).

attributes are not significant for men, while women not living in a house or apartment have a higher probability of being self-employed.

Regarding the variables of the fathers' attributes during the respondents' childhood, only the education level of parents is correlated significantly with the probability of being self-employed. For instance, there appears to be a positive correlation between fathers' education level and the probability of becoming self-employed, which is especially important for men, and still significant for women. Conversely, mothers' attributes are not significant for men or women respondents, except for age squared and the immigrant dummy, which show a small, negative (positive), association (significant at the 90% level, in the men's equation. Finally, the number of children in the household when the respondent was 14 years old is negative and significant, at the 90% level, in the women's equation.

4.2 Cross-country estimates

Table 3 shows by-country estimates of Equation (3), for men in Panel (A), and women in Panel (B). All the columns include the full vector of controls shown in Table 2. Estimates of additional coefficients are available upon request.

Results for men indicate that, first, the intergenerational correlation of self-employment is not significant at standard levels in Sweden, as the coefficients are of the expected sign, but not statistically significant. Estimates for Austria, Belgium, and France are qualitatively similar, since in those countries mothers' past labor attributes are not significant, but both the father's self-employment status, and its interaction with the dummy that defines same occupations, are positive and highly significant. Specifically, if the father was self-employed during the respondents' childhood, the probability of the respondent being self-employed at the time of the interview increases by 8.1, 7.5, and 9.7 percent in Austria, Belgium, and France, respectively. If the father was self-employed and worked in the same occupation as the respondent, then the probability of the son being self-employed increases by 29.1, 32.2, and 24.6 percent, respectively. In Greece, the only significant coefficient is that associated with mothers' self-employment status, indicating that if the mother was self-employed, the probability of the son being self-employed increases by 18.4 percent. In Luxembourg, if the father was self-employed, the probability of the respondent being self-employed increases by 10.3 percent, and if the father

(mother) was self-employed working in the same occupation as the son, the probability of the son being self-employed increases by 26.7 (12.3) percent. In the Netherlands mothers' attributes are negative and not significant, but if the father was self-employed and in the same occupation as his son, the probability of the latter being self-employed increases by 24.6 percent. In Spain, if the father was self-employed, the probability of the Spanish respondent being self-employed increases by 7.3 percent, while the self-employment status of the mother is negative and significant at the 90 percent. In the UK, both fathers and mothers' self-employment status is significant at standard levels, and if the father (mother) was self-employed, the probability of the respondent also being self-employed increases by 6.5 (10.8) percent.

Among women, the results point to no significant long-run intergenerational correlation of self-employment between them and their parents in Greece, Sweden, and the UK, as the coefficients of interest are either not positive or not significant at standard levels. In Belgium and the Netherlands, the intergenerational correlation of self-employment is estimated to arise from father-to-daughter transmissions, as in those countries, if the father was self-employed in the past, the probability of the daughter being self-employed at the time of the interview increases by about 4.7% in Belgium and 4.6% in the Netherlands. However, in those two countries, transmissions from the mother seem not significant, or negative in the case of the Netherlands, and working in the same occupation as the parents has no significant role in the self-employment decision of women. In Austria, fathers' self-employment status is not significant in determining the self-employment decisions of daughters, but the probability of the daughter being self-employed increases by 7.3 percent if the mother was self-employed, and by 17.4 percent if the mother was self-employed and worked in the same occupation than the daughter. In Spain, fathers' coefficients are not significant, although if the mother was self-employed and the daughter works in the same occupation, then the probability of the respondent being self-employed increases by 24.8%. Finally, estimates in France and Luxembourg show that both fathers' and mothers' attributes are significant. If the father was self-employed, working in the same occupation as the daughter, the latter's probability of being self-employed increases by 13.4 (16.3) percent in France (Luxembourg). If the mother was self-employed, the probability of the daughter being self-employed increases by 7.5 percent in Luxembourg, and if the mother was self-employed in the same occupation as the daughter, the probability of the daughter being self-employed increases by 10.6 (23.3) percent in France (Luxembourg).

The estimates in Table 3 show that, in most of the European countries in the sample, there is a significant, long-run intergenerational correlation of self-employment (vs working as an employee). Nevertheless, estimates reveal significant differences across countries, both qualitative and quantitative. For instance, in some countries, fathers seem to be more relevant than mothers for men (e.g., Austria, Belgium, and France), while in others both parents play a significant role (e.g., Luxembourg, Spain, and the UK). For women, estimates are more heterogeneous, and in general terms either the mother's self-employment is significantly associated with the daughters' (Greece, Spain, Sweden, and the UK), or both parents' attributes are significant (Austria, France, Luxembourg, the Netherlands). In quantitative terms, estimates vary by country, but also by gender, as intergenerational correlations range from a 32% increase in the probability of the respondent being self-employed for Belgian men to less than a 5% increase for women in Belgium and the Netherlands.

5. Conclusions

This paper empirically studies the long-run intergenerational correlations of self-employment in Europe, using harmonized and homogeneous data from the EU-SILC special module on intergenerational transmissions, for the year 2011. Focusing on parents' labor status when the respondent was 14 years old, we find that the probability of being self-employed is higher if the father and/or the mother were self-employed when respondent was 14 years old, and higher if individuals work in the same occupation as their fathers. At the country level, estimates show that father-to-son correlations drive the results, as only the estimates for Greece and Sweden are not significant. Among women, the intergenerational correlation of self-employment seems lower than that for men, but statistically significant in several countries of the sample.

This paper reports the existence of a long-run intergenerational correlation of self-employment status, and provides a quantitative estimate for such correlation in nine European countries, showing significant differences across economies, between men and women, and between mothers and fathers. The analysis has, however, certain limitations. First, results do not allow us to talk about causal effects, given potential endogeneity. Second, the analysis may suffer from measurement error, as parents of studied individuals could have been self-employed before or after the year referred to by the special module, but not at the specific time of the special

module. Finally, the data used throughout the analysis does not allow us to run an accurate analysis of cross-occupation differences by country, given the limited sample size in some of the countries considered for analysis.

The ultimate objective of this work is to record the significance of intergenerational transmission as a channel of self-employment status in European countries. The results are important for planners and policy makers, as they may help in anticipating which workers may be employed, or become self-employed, in the future, in terms of their parents economic and sociodemographic characteristics. For instance, recent efforts have been made by institutions to promote self-employment and entrepreneurship, as a way of overcoming the devastating effects of the recent economic crisis. Results suggest that intergenerational transmission of self-employment may be determined by long-term factors when workers were young. Furthermore, the results indicate that working in the same occupation as the parents is a transmission channel of self-employment status, and reveals significant differences between countries. Further research should focus on studying different channels that may additionally drive transmissions, such as culture, social norms, and the influence of certain managerial skill, entrepreneurial spirit, and human capital related to self-employment.

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Table 1. Summary statistics

VARIABLES	Employees		Self-employed	
	Mean	S.D.	Mean	S.D.
Individual variables				
Being male	0.472	0.499	0.626	0.484
Age	42.573	9.332	44.291	8.885
Never married	0.281	0.449	0.250	0.433
Secondary ed.	0.414	0.493	0.412	0.492
University ed.	0.336	0.472	0.310	0.463
Household variables				
N. of children	2.337	1.951	2.212	1.945
Household income (/1,000)	45.854	32.142	45.573	54.724
Dwelling: house	0.589	0.492	0.631	0.483
Dwelling: apartment/flat	0.405	0.491	0.362	0.481
Father variables (SM)				
Age	45.096	5.902	45.536	5.875
Secondary ed.	0.236	0.425	0.210	0.407
University ed.	0.129	0.335	0.127	0.333
Non-immigrant	0.851	0.356	0.908	0.289
Employed	0.972	0.166	0.972	0.164
Employee	0.776	0.417	0.577	0.494
Self-employed	0.196	0.397	0.396	0.489
Mother variables (SM)				
Age	42.021	5.601	42.160	5.531
Secondary ed.	0.194	0.395	0.186	0.389
University ed.	0.082	0.274	0.074	0.262
Non-immigrant	0.848	0.359	0.902	0.297
Employed	0.430	0.495	0.452	0.498
Employee	0.343	0.475	0.266	0.442
Self-employed	0.087	0.282	0.186	0.389
Household variables (SM)				
N. of children	2.492	1.449	2.410	1.457
Household financial situation	4.052	1.065	4.062	1.012
N. Observations	46,761		9,006	

Note: Summary statistics include specific sample weights of the 2011 special module on Intergenerational Transmissions.

Table 2. Transmission of self-employment

	Baseline model		Plus same occupation than father/mother	
	Men (1)	Women (2)	Men (3)	Women (4)
Individual variables				
Age	0.015***	0.008***	0.014***	0.008***
Age squared	-0.001**	-0.001**	-0.001**	-0.001**
Never married	0.001	-0.016***	0.001	-0.015***
Secondary ed.	-0.003	-0.002	-0.004	-0.002
University ed.	-0.024	-0.006	-0.024	-0.006
Household variables	0.000	0.002	0.000	0.002
N. of children				
Household income	-0.000*	0.000	-0.000*	0.000
Dwelling: house	-0.055	-0.077*	-0.045	-0.075*
Dwelling: apartment/flat	-0.073*	-0.098**	-0.062	-0.096**
Father variables (SM)				
Age	-0.003	-0.001	-0.004	-0.001
Age sq.	0.000	0.000	0.000	0.000
Secondary ed.	0.025**	0.004	0.025**	0.004
University ed.	0.059***	0.021***	0.057***	0.020**
Non-immigrant	0.002	0.013	0.001	0.012
Self-employed	0.150***	0.036***	0.092***	0.021***
Same occupation	-	-	-0.017***	-0.003
Same occ. * Self-emp.	-	-	0.238***	0.119***
Mother variables (SM)				
Age	0.013	0.001	0.012	0.001
Age sq.	-0.002*	0.000	-0.001*	0.000
Secondary ed.	0.013	0.014	0.013	0.014
University ed.	-0.004	0.018	-0.005	0.019
Non-immigrant	0.023*	-0.003	0.022*	-0.002
Self-employed	0.071**	0.074***	0.059**	0.044***
Same occupation	-	-	-0.005	-0.015*
Same occ. * Self-emp.	-	-	0.107**	0.153***
Household variables (SM)				
N. of children	-0.005*	-0.004**	-0.004	-0.004*
Household financial situation	0.000	0.000	0.000	0.000
Country controls				
Nest-leaving	0.008**	0.023***	0.007**	0.022***
Unemployment level (2011)	-0.013**	-0.020***	-0.013**	-0.020***
Unemployment level (SM)	0.003**	0.002**	0.004**	0.003**
Female employment (2011)	0.004**	0.015***	0.004***	0.014***
Female employment (SM)	0.000	0.000	0.000	0.000
Fertility rate (2011)	0.230	0.486**	0.204	0.452*
Fertility rate (SM)	0.022	0.050*	0.021	0.048*
Children fulfill women	0.063	-0.089	0.061	-0.062
No single mothers	-0.632*	-0.595**	-0.620*	-0.599**
Equitable chores affect marriage	0.268	0.438	0.235	0.440
Constant	-0.723	-1.919*	-0.555	-1.761*
Occupation FE	Yes	Yes	Yes	Yes
Parents occ. FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
R-squared	0.118	0.087	0.131	0.093
N. Observations	27,722	28,045	27,722	28,045

Note: Robust standard errors clustered at the country level available upon request. Estimates include specific sample weights of the 2011 special module on Intergenerational Transmissions. The dependent variable is the employment status of respondents (1 if employed, 0 if non-working). *** Significant at the 99%; ** significant at the 95%; * significant at the 90%.

Table 3. Transmission of self-employment, by country

A) MEN	Austria	Belgium	France	Greece	Luxemb.	Netherl.	Spain	Sweden	UK
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Father variables (SM)									
Self-employed	0.081**	0.075**	0.097***	0.046	0.103***	-0.010	0.073**	0.052	0.065**
Same occupation	-0.036*	-0.023	-0.009	0.067	-0.008	-0.002	-0.004	0.001	-0.007
Same occ. * Self-emp.	0.291***	0.322***	0.246***	-0.087	0.267***	0.246***	0.064	0.071	0.052
Mother variables (SM)									
Self-employed	0.063	0.053	0.007	0.184***	0.044	0.037	-0.110*	0.013	0.108**
Same occupation	-0.025	-0.004	0.003	0.078	-0.018	0.030	-0.028	0.003	-0.001
Same occ. * Self-emp.	0.126	-0.083	0.07	-0.004	0.123**	0.080	0.284	0.219	0.191
Constant	-0.705	-1.367**	-0.634	-0.102	-0.602	0.011	-0.537	-1.231	0.826
All controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.224	0.181	0.273	0.120	0.156	0.324	0.111	0.170	0.185
N. Observations	2,378	2,211	5,988	1,443	8,250	2,536	2,126	742	2,048
B) WOMEN									
Father variables (SM)									
Self-employed	0.021	0.047**	0.016	0.048	0.007	0.046**	0.022	0.012	0.02
Same occupation	0.047**	-0.028**	0.005	0.02	-0.031**	0.004	-0.024	-0.067	0.045
Same occ. * Self-emp.	0.099	0.015	0.134***	0.014	0.163***	0.096	0.013	-0.069	0.115
Mother variables (SM)									
Self-employed	0.073*	0.026	0.038	0.053	0.075***	-0.069***	0.02	0.078	0.041
Same occupation	-0.002	0.005	-0.017	-0.874***	-0.015	-0.014	0.02	-0.072**	-0.030*
Same occ. * Self-emp.	0.174*	0.056	0.106*	-0.087	0.233***	0.026	0.248**	-0.155*	0.108
Constant	-0.311	-0.581	-0.711**	0.669	0.651	-0.058	-0.382	0.059	0.692
All controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.210	0.080	0.265	0.067	0.109	0.199	0.114	0.11	0.125
N. Observations	2,518	2,190	5,929	1,311	7,651	2,734	2,387	815	2,510

Note: Robust standard errors clustered at the country level available upon request. Estimates include specific sample weights of the 2011 special module on Intergenerational Transmissions. The dependent variable is the employment status of respondents (1 if employed, 0 if non-working). *** Significant at the 99%; ** significant at the 95%; * significant at the 90%.