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**On the Link between Self-Employment and Job
Satisfaction: What Do Really Change after Becoming
a Self-Employee?**

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On the Link between Self-Employment and Job Satisfaction: What Do Really Change after Becoming a Self-Employee?

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Abstract

This paper studies the impact of the transition from salaried employment to self-employment on job satisfaction. Our analysis differs from previous empirical work in three crucial aspects. First, we consider all types of job-to-job transitions, which allow us to eliminate the pure mobility impact from the pure self-employment impact. Second, we consider not only overall job satisfaction but also satisfaction in a wide variety of job domains. Third, we study the interaction between previous unemployment spells and self-assessed skill mismatch with job transitions in their impact on job satisfaction. To do so, we use the European Community Household Panel covering the period from 1994 to 2001. Our data enable us to compare the same individuals before and after job transitions. Our findings indicate that individuals who transit from salaried employment to self-employment increase their job satisfaction more than workers who carry out other types of job transitions. Furthermore, we find that individuals who experience an unemployment spell or declare themselves to be skill mismatched just before the transition experience a higher increase in job satisfaction after the transition.

Keywords: Self-employment, unemployment, skill-mismatch, job satisfaction

JEL Classification: L26, J24, B23

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1. Introduction

There is abundant empirical literature showing that workers in salaried employment are less satisfied with their jobs than the self-employed (Allen and Velden, 2001; Benz and Frey, 2008a, 2008b). Recent works emphasized the incidence of moving from employment to self-employment (Binder and Coad, 2013), or from inactivity to self-employment (Justo et al., 2019). However, much of the work on this issue has used cross-sectional data, for which the test consists of the comparison of different groups of individuals at the same point in time. This comparison based on cross-sectional data is muddled by the difficulty in distinguishing whether the observed differences across groups reflect a pure difference in satisfaction due to a different employment status or rather initial differences in satisfaction that already exist. In this paper, we use panel data, which allow us to avoid this difficulty by following the change in satisfaction within the individual over time following the transition to self-employment. As the focus is on within-individual changes, the estimation here allows us to control for time-invariant unobserved individual heterogeneity, which may reflect personality traits, for example optimism or pessimism, and which may cause some individuals to be more prone to exhibit higher or lower levels of satisfaction, irrespective of their employment status. Job-to-job transitions generally involve new working conditions that may alter worker-job matches in the short and medium runs. The measurement of worker-job matches is far from easy, since they affect different specific job dimensions; therefore, we must consider these changing conditions (Autor and Handel, 2013). This article will expand the scope of the analysis with respect to previous studies not only by using panel data, which have gained more prominence in recent studies on self-employment, but also in the following four ways.

First, if workers entering self-employment from salaried employment improve their level of job satisfaction, it might result from the combination of both the fact of becoming self-employed and the fact of moving. This mobility effect might obscure the true relationship

between self-employment and job satisfaction. To disentangle the impact of self-employment on job satisfaction, we design a clean empirical strategy consisting of considering all types of transitions, specifically from salaried employment to self-employment (hereafter *salaried-to-self*), from self-employment to salaried (hereafter *self-to-salaried*) and within salaried employment (hereafter *salaried-to-salaried*). Hence, we can eliminate the pure mobility effect from the pure self-employment effect.

Second, the impact of job transitions on job satisfaction might be different depending on the reasons that push workers to move. In many cases, individuals enter self-employment as a way to escape from unemployment (necessity entrepreneurs). In contrast, so-called opportunity entrepreneurs are pushed into self-employment by a kind of “entrepreneurial spirit” or to chase a business opportunity. In this context, the quality of the job–worker match is expected to be higher for the latter; therefore, it is likely that opportunity movers will feel more satisfied than necessity movers. In this paper, we use previous unemployment before making the transition to identify necessity movers.

Third, individuals who report being skill mismatched are less likely to be satisfied with their job (Vieira, 2005; Albiol-Sánchez et al., 2014), and the self-employed are less likely to declare themselves to be skill mismatched (Millán et al., 2013; Albiol-Sánchez et al., 2014). This evidence clearly makes perceived skill mismatch to interact with self-employment in the impact of job mobility on job satisfaction. This interacting role is important, since the perception of being skill mismatched is crucial for individuals’ motivation and effort and hence for their productivity (Berlingieri and Erdsiek, 2012). To control for this interaction, we consider whether individuals who experience a job transition declared themselves to be skill mismatched before the transition.

Fourth, moving from salaried employment to self-employment implies an important change in many of the working conditions. The self-employed face greater earnings uncertainty and work more hours than salaried workers. Therefore, despite the self-employed

exhibiting a higher level of overall job satisfaction, they may feel less satisfied than salaried employees in some of the job domains. We expand the scope of the analysis beyond overall job satisfaction by considering a wide variety of job domains that have not been considered in previous studies, such as the type of work, job security, working conditions, working hours, earnings and so on. We consider this analysis to be crucial, since self-employment differs in a number of characteristics from salaried employment.

To carry out our analysis, we use the European Community Household Panel (ECHP), which is an annual panel covering the period 1994–2001 for a group of EU countries.¹ The panel nature of the data allows us to track individuals over time, which makes it possible to compare the same individuals before and after changing jobs, and to determine the impact of a number of factors when they make the transition. One of the interesting features of the ECHP is that it uses standardized questionnaires that provide comparable micro data for all the EU countries participating in the survey. Furthermore, this survey elicits responses regarding not only workers' overall job satisfaction but also their satisfaction in a wide variety of job domains. This is the reason because we use the ECHP, despite it is not a recent dataset, it is unique in this regard. Compared with those studies that rely on cross-sectional data, the use of longitudinal data can bring new light to the analysis of the causes and consequences of self-employment. Our analyses provide a wide variety of results supporting our hypotheses. We observe that, compared with other types of job transitions, workers entering self-employment from salaried employment experience a larger increase in job satisfaction. Workers engaging in this type of transition are also more likely to be satisfied with the type of work, environmental/working conditions and commuting/distance to the job but are less likely to be satisfied with the earnings, working hours, working times and job security. Our results also indicate that this type of worker reduces the hourly earnings by almost 20% and increases the

¹ Spain, Italy, Portugal, France, Ireland, Germany, the UK, the Netherlands, Denmark, Belgium, Luxembourg, Greece, Austria, Finland and Sweden.

number of hours worked by more than 11% when moving from salaried employment to self-employment. As we anticipated, individuals who declared themselves to be skill mismatched before changing jobs tend to be more satisfied after moving than those who declared themselves not to be skill mismatched. However, we do not find any difference between those entering self-employment from salaried employment and those changing jobs within salaried employment. Finally, in contrast to our expectation, previous unemployment spells (necessity movers) only reduce job satisfaction for workers changing jobs within salaried employment.

The remainder of the paper is structured as follows. In Section 2, we propose our theoretical framework. Section 3 describes the database and variables used in the analysis. In Section 4, we report and comment on our econometric results. Finally, in Section 5, we draw the main conclusions and discuss our findings.

2. Theoretical framework

2.1. The transition to self-employment and job satisfaction

In the labor market, individuals match jobs: employees seek jobs that complement their skills and preferences, and employers seek employees with the appropriate skills. However, labor markets are characterized by a high level of heterogeneity across individuals and the existence of asymmetric information. Under this circumstance, the match between individuals and jobs is not perfect. Job transitions are an adjustment procedure that results in an improvement of the worker-job match quality (Jovanovic, 1979), which in turn is expected to increase individuals' job satisfaction. In fact, previous empirical evidence confirms that job transitions, regardless of their nature, involve a positive impact on job satisfaction (Allen and Velden, 2001). Furthermore, the empirical evidence shows that self-employees are generally more satisfied than employed individuals (Albiol-Sánchez et al., 2014).

Self-employment entails a number of characteristics from which workers who lack what can be called the "entrepreneurial spirit" shy away. These workers tend to show a

preference for salaried employment. Workers who possess the so-called “entrepreneurial spirit” appreciate a high level of autonomy (Hundley, 2001; Benz and Frey, 2008a, 2008b) and flexibility (Parasuraman and Simmers, 2001). However, they place less value on security, conformity and tradition (Beugelsdijk and Noorderhaven, 2005; Noseleit, 2010). Self-employees are usually also more active, combining high levels of job control and job demand (Stephan and Roesler, 2010; Patzelt and Shepherd, 2011).

All these circumstances taken together make self-employees more likely than employees to consider their work to be meaningful and challenging. Additionally, previous empirical evidence confirms that self-employed individuals are more satisfied with their jobs than salaried individuals when they report a preference for self-employment (Cueto and Pruneda, 2017). This means that individuals who become self-employed extract greater utility from the procedures in their work than the outcomes when they were employees. Therefore, we expect that individuals who decide to make a *salaried-to-self* transition will be more satisfied with their job as a whole than those making other job transitions.

2.2. The impact of the transition to self-employment on different dimensions of job satisfaction

The literature analyzing the determinants of job satisfaction has focused almost exclusively on overall job satisfaction. However, as we have pointed out, a wide range of working conditions change when an individual decides to become self-employed. The decision to become self-employed may reveal the preferences or values that an individual has (Warr and Inceoglu, 2018). In this context, job satisfaction can be considered as a construct made up of satisfaction in the different job domains and a set of attitudes towards various aspects of the job. Satisfaction in the different job domains is related not only to the cognitive development, such as the nature of the job, but also to non-cognitive parameters, such as the number of working hours, job security, earnings and so on. These are relevant aspects to consider if we want to assess the impact of the transition to different jobs, especially those involving a change

in the employment status, such as becoming self-employed when previously in salaried employment and the other way around. Although all types of jobs contain a mix of these characteristics, they have different impacts on individuals (Warr and Inceoglu, 2012). According to Warr and Inceoglu (2012), it is necessary to delve deeper into the analysis of overall job satisfaction and assess the impact of job transitions on the perceived job satisfaction with the different job features. To the best of our knowledge, this task has not been undertaken before.

Becoming self-employed involves a change in the working conditions, such as financial and organizational responsibility, demanding tasks, difficult decision making and the requirement for innovation and personal independence. To adapt to these new working conditions, self-employees must have certain skills. The previous literature has found that individuals show heterogeneous “entrepreneurial ability” and that those individuals with a greater degree of such skills have a greater propensity to become self-employed (Baumol, 1990; Holmes and Schmitz, 1990; Gifford, 1993).² This is in line with Lazear (2004, 2005), who proposed that it is valuable for an entrepreneur to be a “Jack of all trades,” while employees should be specialists. In other words, the self-employed must have a larger variety of skills to evaluate the risk of their business, be able to obtain financial resources (Seghers et al., 2012), evaluate their projects and assess their market opportunities (Echardt et al., 2006), among others.

Considering all this evidence, we think that changes in the “satisfaction with the type of work” before and after entering self-employment better capture the potential improvements in the worker-job match regarding the possibility of using these “entrepreneurial abilities.” Individuals with these “entrepreneurial abilities” who decide to

² According to Douglas and Shepherd (2000), “entrepreneurial ability” includes those skills possessed by an individual that contribute to his/her productivity on the job and include opportunity recognition and screening, business planning, creative problem solving, strategic marketing, financial management, human resource management, leadership and persuasive skills.

make the *salaried-to-self* transition enhance their job satisfaction related to the tasks developed in their place. Therefore, they should be expected to increase not only their overall satisfaction but more specifically their satisfaction with the type of work. However, other job features, such as the number of working hours, are expected to increase, which may also lead to a decrease in relative earnings. That is, even if self-employees are able to keep constant, or even increase, their annual earnings, their hourly earnings may decrease because of the increase in the number of hours worked. Self-employment is also characterized by the provision of more fluctuating earnings than salaried employment. The literature shows that workers dislike dispersion in earnings (Diaz-Serrano et al., 2008); therefore, we should expect workers undertaking the *salaried-to-self* transition to be less satisfied not only with earnings but also with job security than workers making other types of transitions. Analogously, because of the reasons mentioned above, we also expect Individuals who decide to make a salaried-to-self transition are more likely to feel satisfied with the type of work than those workers doing other type of transitions.

2.3. Perceived skill mismatch and the impact of job transitions

As we have pointed out previously, the worker–job match in the labor market is imperfect. This leads to the existence of skill mismatches between employees and their job. The previous literature has shown that skill-mismatched employees are less motivated and reduce their effort, leading to lower productivity and lower earnings (Borghans and de Grip, 2000; Berlingieri and Erdsiek, 2012). Consequently, skill mismatches are a key factor affecting overall job satisfaction (Moshavi and Terborg, 2002; Cabral, 2005; Bender and Heywood, 2006; Verhaest and Omev, 2009; Bender and Heywood, 2011; Mavromaras and McGuinness, 2012).

Job transitions may adjust an imperfect worker–job match (Jovanovic, 1979), and, according to our previous arguments exposed in subsection 2.1., individuals making the *salaried-to-self* transition will be able to improve the perceived quality of the match more,

because they possess the so-called “entrepreneurial spirit.” Hence, self-employment offers the opportunity for a better job-worker match in terms of skills, since individuals may fully develop all their entrepreneurial abilities better than they can in salaried employment. Consequently, we should expect that those individuals who declared themselves to be skill mismatched before the transition will be more satisfied after the transition. We expect this impact to be more sizeable for those workers entering self-employment from salaried employment. In other words, previous skill mismatches should increase the positive impact of job transitions on job satisfaction more importantly for those workers that decide to make a salaried-to-self transition than individuals making other transitions.

2.4. Unemployment and job transitions

Job transitions may be voluntary or involuntary. This distinction is crucial in the context of entrepreneurship if one wants to understand the causes and consequences of this decision. The existence of previous spells of unemployment before the transition to self-employment means that individuals may have different motivations for entering self-employment (Sternberg and Wennekers, 2005). Individuals without previous spells of unemployment are individuals who probably engage in pursuing a business opportunity voluntarily. Opportunity entrepreneurs have envisaged a business opportunity, which allows them to use their human capital more effectively (Lazear, 2009). However, necessity entrepreneurs are individuals who change their jobs because they have been laid off. Necessity movers increase the employment turnover and often result in necessity entrepreneurs (Koellinger and Thurik, 2012).

As Robinson (2018) pointed out, necessity movers are more likely to obtain a lower-quality match in their new job because they are forced to move. In this context, with a lack of employment opportunities, necessity entrepreneurs may decide to start up their business with poorer preparation than opportunity entrepreneurs. This circumstance will not allow them to

gain the maximum benefit from the transition to self-employment. Previous empirical evidence has also shown that a recent spell of unemployment has a negative impact on job satisfaction for both salaried and self-employed workers (Kautonen and Palmroos, 2010; Millan et al., 2013). This result may be associated with a poorer-quality match among the necessity movers. In this paper, we identify necessity movers as those who were unemployed just before changing jobs or affiliation.

As we argued in subsection 2.2, necessity movers entering self-employment probably not only do not possess “entrepreneurial abilities” but also lack the “entrepreneurial spirit”. In this context, we think that it is likely that necessity movers entering self-employment will experience more disutility from this move than opportunity movers who change jobs within salaried employment. This means that Previous spells of unemployment should diminish the positive impact of job transitions on job satisfaction, and this s impact should be more pronounced for those entering into self-employment.

3. Data and variables

3.1. Database

The data used in this paper belong to the European Community Household Panel (ECHP). The main advantage of this survey is that the questionnaires are standardized. All the surveyed individuals in the participating countries respond to the same questions each year; consequently, the information is directly comparable across countries. Furthermore, it contains not only information at the household level but also very detailed data at the individual level. These interviews cover a wide range of topics concerning living conditions. They include detailed information about respondents’ household and individual incomes, financial situation in a wider sense, working life, housing, social relations, health and sociodemographic information, among other variables. The data also include information

regarding individuals' satisfaction in different life domains, including job satisfaction and satisfaction with a wide variety of job characteristics.

The data collection started in 1994 and was conducted over eight consecutive years. We make use of all the waves of the ECHP, thus covering the period 1994–2001 for eleven of the EU-15 countries (Denmark, the Netherlands, Belgium, France, Ireland, Italy, Greece, Spain, Portugal, Austria and Finland). For Austria and Finland, the available files only cover the periods 1995–2001 and 1996–2001, respectively.

In this paper, we aim to capture the contribution of becoming self-employed to job satisfaction; therefore, we need to consider all possible transitions, that is, job changes staying in salaried employment, from salaried employment to self-employment and from self-employment to salaried employment. In this context, the panel structure of the ECHP is particularly convenient, since it allows us to track individuals who participate in the survey in consecutive years and change their job during the sample period. Workers are counted as self-employed or salaried employees if they answer “yes” to either of these two categories in a direct question regarding their labor status.³

3.2. Samples

As a general restriction, we only include in our sample those individuals who are self-employed or salaried employees in the private sector, aged 18–65, either males or females and working full-time. Since we are interested in analyzing the impact of transitions from salaried employment to self-employment on different outcomes, individuals who did not experience any of the three possible transitions (i.e., *salaried-to-self*, *salaried-to-salaried* and *self-to-salaried*) are also excluded from the sample. Workers may decide to improve their working conditions

³ Individuals are forced to choose only one main occupation, either working for an employer in paid employment or working in self-employment. Since no information is collected on secondary activities, it is not possible to determine whether some individuals combine both self-employment and paid employment.

just by changing jobs or either moving to self-employment or staying in salaried employment. Therefore, imposing this restriction is necessary if we want to disentangle whether perceived improvements (deteriorations) resulting from a new worker–job match are attributable to the transition from salaried employment to self-employment or whether they are just a pure movement effect. We define the sample of *movers* as the group of interviewed workers making any of the three possible job transitions. Occasionally, throughout the paper, we will also carry out some analyses using the full sample of workers; therefore, when we do not impose any restrictions, we will refer to the group of workers as the sample of *stayers and movers*. *Stayers* will be defined as those workers who remain in either salaried employment or self-employment during the whole sample period. Our final sample of *stayers and movers* consists of 236,756 observations corresponding to 62,214 individuals. The sample of *movers* consists of 59,086 observations corresponding to 11,410 individuals.

3.3. Variables

3.3.1. Outcome variables

A contribution of this research is to take into account not only overall job satisfaction but also satisfaction with different job domains, which are related to the tasks performed and to the working conditions.⁴ This is the reason because we use the ECHP, despite it is not a recent dataset, it is unique in that it contains a large set of satisfaction variables regarding different job domains. As usual, job satisfaction variables consist of an ordinal scale ranging from one to six, with one indicating that individuals are not satisfied at all and six indicating that they are fully satisfied with their job. In addition to overall job satisfaction, we study satisfaction with: earnings, job security, type of work, number of working hours, working times (day time, night time, shifts), working environmental conditions and distance to the job/commuting.

⁴ Table A1 in the annex contains a description of the variables used in this analysis.

Satisfaction measures are subjective, meaning that they are subject to individual cognitive biases, which are essentially determined by expectations/aspirations and personality traits. This generates the possibility that individuals will have different perceptions of the same scale. Cognitive biases may cause individuals in objectively worse working conditions to report a higher level of job satisfaction than other individuals in objectively better working conditions. Analogously, two individuals enjoying identical working conditions may report different levels of satisfaction. However, individuals tend to take decisions according to their perception of a situation, which does not necessarily have to coincide with the objective assessment of the situation. Despite their subjective nature, satisfaction variables have proven to be strong predictors of important economic decisions, such as quitting job mobility (Clark et al., 1998; Clark, 2001) or housing mobility (Diaz-Serrano, 2009; Diaz-Serrano and Stoyanova, 2010), among others.

The use of self-reported measures that consider specific dimensions of the working conditions allows us to overcome a challenge pointed out previously in the literature. According to Autor and Handel (2013), DOT and O*Net provide information on job characteristics only at the level of occupations and not at the workers' level. Those authors presented evidence regarding the fact that job tasks differ among workers within an occupation and that this variation is an important determinant of earnings. Our self-reported measurements of job satisfaction provide enough flexibility to assess the impact of job transitions in a number of labor outcomes. We have to take into account that we are considering the transition between two different employment statuses (i.e., self-employment vs. salaried employment) that require different skills and involve different working conditions.

Table 1 reports some of the descriptive information about the satisfaction variables in the model. The summary statistics are reported separately for salaried employees and self-employed individuals. The raw means of the satisfaction variables reveal that, in general,

salaried workers are more satisfied than self-employed individuals in all the items considered in the survey, though, in most of the job domains considered, the differences in satisfaction between the two types of workers are fairly modest. The only exception to this general result regards satisfaction with the distance to the job/commuting. The summary statistics reveal differences among salaried and self-employed individuals in their self-reported skill mismatch. In particular, 53% of salaried workers declare themselves to be skill mismatched, almost 12 percentage points more than for those who are self-employed (41.4%).

[Table 1 around here]

3.3.2. *Transition variables*

We create different transition variables. We consider that a *salaried-to-self* transition occurs when individual i declares himself/herself to be in salaried employment in period t and self-employed in period $t+1$. The opposite applies when we consider the *self-to-salaried* transition. We identify a *salaried-to-salaried* job transition using the variable tenure in the current job (*Tenure*). We assume that this type of transition occurs if $Tenure_{t-1} > Tenure_t$, in which $Tenure_t = 0$ or 1 . Our transition variables in each case will be identified with the subscript T . For instance, the variable *Salaried-to-self_T* refers to an individual who moves from salaried employment to self-employment, but the subscript T indicates that the variable will take the value one during all periods in which the individual remains in self-employment. Therefore, the marginal effect associated with this variable will indicate the average impact of the transition during all the years for which the individual remains in the same job after the transition. We proceed analogously for the other transitions.

3.3.3. *Other explanatory variables*

Our vector of explanatory variables accounts for various determinants: a set of sociodemographic indicators, such as age, gender, educational attainment, marital status, household size and home tenure statuses. We also consider a set of job characteristics, such as tenure in the current job, occupation, industry and weekly hours worked (see Table A-1 for a complete description).

4. Econometric results

4.1. Empirical model

In this section, we estimate our empirical models regarding the determinants of overall job satisfaction and satisfaction in different job domains. In our analysis, we estimate the impact of individual and job characteristics on job satisfaction by means of the following equation:

$$Y_{ict} = \alpha X_{ict} + \beta Z_{ict} + \delta_t + \gamma_c + u_i + v_{ict} \quad (1)$$

where Y_{ict} is our outcome variable for individual i residing in country c in year t , X_{ict} is a matrix containing a set of individual characteristics, Z_{ict} is a matrix containing a set of job characteristics, α and β are a set of coefficients to be estimated, δ_t are year fixed effects, γ_c are country fixed effects, u_i are individual fixed-effects picking up individual unobserved heterogeneity and v_{ict} is a time-varying random error term. The variables contained in X_{ict} are a squared polynomial on age, education and gender, while the variables in Z_{ict} are a dummy variable indicating whether workers declared themselves to be skill mismatched, a dummy for self-employment, a squared polynomial on years of tenure in the current job, occupation, industry and the logarithm of the number of weekly hours worked. In our preliminary analysis, we estimate equation (1) using the full sample (stayers and movers).

To estimate the impact of the transitions on satisfaction, we include as covariates in equation (1) the three possible job transitions, and equation (1) now reads as follows:

$$Y_{ict} = \sum_{k=1}^3 \lambda_k T_{kict} + \alpha X_{ict} + \beta Z_{ict} + \delta_t + \gamma_c + u_i + v_{ict}, \quad (2)$$

where $T_{k=1,2,3}$ are dummy variables picking up the three possible transitions (*salaried-to-self*, *salaried-to-salaried* and *self-to-salaried*). Equation (2) is estimated using the sample of movers.

A recurrent discussion before deciding which is the most suitable estimator for Equation (1) and (2), is whether we give a cardinal or ordinal meaning to job satisfaction. Under the ordinality assumption, a natural candidate to estimate Equation (1) and (2) is the logit/probit ordered model. On the contrary, the cardinality assumption implies that Equation (1) and (2) can be estimated using OLS. However, as it is pointed out in Ferrer-i-Carbonell and Frijters (2004), at the empirical level the cardinal and ordinal analysis of subjective well-being generally produces similar results in terms of the trade-offs between variables. Therefore, in our regressions, we assume job satisfaction to be cardinal. As it is pointed out in Clark et al. (2008), there are some practical reasons to make this choice. First, the OLS framework allows us the interaction terms in our regressions to be interpreted straightforward. Second, OLS panel estimation uses the whole sample, rather than the reduced sample under conditional fixed effects ordered logits.⁵

4.2. Some preliminary analyses

This subsection shows preliminary evidence of the different factors affecting overall job satisfaction and satisfaction with the type of work. In this preliminary analysis, we focus on satisfaction with the type of work only, because, as we explained in the theoretical section,

⁵ Ferrer-i-Carbonell and Frijters (2004) propose a fixed-effects ordered logit model, in which the dependent variable is recoded to be dichotomous according to a specific individual threshold. In this setting, identification is based on individuals who change life satisfaction over time, what makes the sample to be sharply reduced.

this job domain is the one in which we expect self-employment to have a higher incidence. In Table 2, we report the marginal effects of our two models. For each model, we use two alternative specifications: one that considers previous unemployment spells and another that does not. In Table 2, we report the results of the estimation of equation (1). In column (1), we report the results regarding job satisfaction (overall job satisfaction), while column (3) shows the results for satisfaction with the type of work. Our preliminary results are in line with the statements of our hypotheses, which will be tested in greater depth in the next subsection.

Self-employed individuals report being more satisfied with their job (0.054) and type of work (0.094) than salaried employees. Self-reported skill mismatch reduces job satisfaction and satisfaction with the type of work by -0.100 and -0.115, respectively. The effect in both cases is quite sizable. The interaction between self-employment and self-reported skill mismatch is positive and statistically significant. This means that the self-employed who perceive themselves as being skill mismatched show a greater satisfaction with their job than salaried employees reporting being skill mismatched ($0.054 - 0.100 + 0.085 = 0.04$). The impact on satisfaction with the type of work is higher ($0.095 - 0.115 + 0.079 = 0.059$). All these results taken together imply that being self-employed compensates for being skill mismatched up to the point that the average skill-mismatched self-employed individual is still more satisfied with the job and type of work than a salaried employee who feels properly skill matched.

When the variable previous unemployment enters the equation, we observe some interesting results. We report the results of the impact of previous spells of unemployment on overall job satisfaction in column 2 and on satisfaction with the type of work in column 4. Being unemployed before the current job decreases the job satisfaction (-0.952) and satisfaction with the type of work (-0.111). The interaction between previous unemployment and self-reported skill mismatch is statistically significant and negative for job satisfaction (-0.067) but not for the satisfaction with the type of work (-0.036).

Regarding other control variables, individuals' age has an inverted U-shaped effect on satisfaction with the type of work; that is, the effect is positive but decreasing with age. Education and weekly hours worked show a positive relationship with overall job satisfaction and satisfaction with the type of work. Compared with those in managerial jobs, professionals are more satisfied, while those in elementary occupations and agricultural and fishery workers are less satisfied. Finally, workers in the service sector are those who report the highest level of satisfaction.

[Table 2 around here]

4.3. What happens after becoming self-employed?

In this subsection, we report the estimation results regarding the impact of the transition variables on worker' satisfaction. In this analysis, we consider not only overall job satisfaction and satisfaction with the type of work but also satisfaction in a wide variety of job domains. Analogously, since the estimation of all the satisfaction equations produces a huge amount of numbers, we only report the marginal effects associated with our variables of interest.⁶

4.3.1. The impact of job transitions on overall job satisfaction and other satisfaction domains

In Table 3, we report the estimated marginal effects of the job transition variables on overall job satisfaction and satisfaction with a wide variety of job domains (type of work, earnings, working hours, job security, working times, working/environmental conditions and distance to the job/commuting). As a general conclusion, we highlight the fact that that job transitions tend to improve not only overall job satisfaction but also satisfaction in practically all the job domains considered here. First, we observe that the workers who experience the largest

⁶ The estimated marginal effects of the socio-demographic variables on satisfaction in the full sample (subsection 4.2) are quite similar to those in the sample of movers (subsection 4.3).

improvement in overall job satisfaction are the ones making the *salaried-to-self*_T transition. For this type of workers, the increase in job satisfaction (overall satisfaction) is 0.238, practically similar to those workers making the transition *salaried-to-salaried*_T (0.26) while nearly twice as high as that for workers making the transition *self-to-salaried*_T (0.168).

The job domains in which workers making the *salaried-to-self* transition improve their satisfaction more than workers making the *salaried-to-salaried*_T or *self-to-salaried*_T transition are the type of work (0.254 vs. 0.171 and 0), working/environmental conditions (0.248 vs. 0.194 and 0) and distance to the job/commuting (0.252 vs. 0 and -0.233). On the contrary, the job domains in which workers making the *salaried-to-self* transition tend to increase satisfaction less than those making the other two types of transitions are earnings (0.136 vs. 0.303 and 0.304), job security (0.109 vs. 0.232 and 0.259), working times (0 vs. 0.124 and 0.219) and working hours (-0.174 vs. 0 and 0.259). Results regarding satisfaction with the type of work confirm our argumentation in subsection 2.1, while all these results taken together allow us to confirm our argumentation exposed in subsection 2.2.

In addition to the transition variables, we show the impact of two dummy variables indicating whether the individual declared (him)herself to be skill mismatched or was unemployed before the job transition. These two variables turn out to be particularly important in determining satisfaction in all job domains. Our estimates show that workers who reported being skill mismatched before the transition are -0.133 less satisfied with their job (overall job satisfaction), while the impact of this variable on satisfaction with the type of work is higher, -0.182. The impact of perceiving oneself as skill mismatched before the job transition on satisfaction with earnings and environment/working conditions is similar, -0.120 and -0.103, respectively. A slightly lower impact is estimated for satisfaction with job security, working hours and distance to job (-0.057, -0.044 and -0.036), while for the rest of the satisfaction domains, the estimated effects are not statistically significant.

Being unemployed before making the transition also shows sizable impacts on satisfaction in practically all the job domains. Job satisfaction (overall satisfaction) is smaller for those who were unemployed before the transition (-0.137), while the impact of this variable on satisfaction with the type of work is slightly smaller, -0.112. For satisfaction with earnings (-0.127) and job security (-0.147) are also quite similar. The impact of previous unemployment on the remaining job satisfaction domains is more modest, -0.045 and -0.066 for satisfaction with working conditions and distance to job, respectively.

[Table 3 around here]

As a complementary analysis, in Table 4, we report the results of the estimation of the impact of the three types of transition on the log of hourly earnings and the number of weekly hours worked. In these equations, in addition to our transition variables, we use the standard controls, such as gender, education, family composition, industry, occupation and so on. We use a linear fixed-effect model using the sample of movers. Again, for the sake of brevity, we just focus on the estimated parameters of our variables of interest. Workers making the *salaried-to-self* transition reduce their hourly earnings by almost -20% and increase their number of working hours by a little more than 11%. On the contrary, workers changing jobs within salaried employment increase their hourly earnings by a little more than 17% and keep the number of worked hours constant after the transition. Finally, the most important relative gain is experienced by those workers making the *self-to-salaried* transition. These workers reduce the number of hours worked by slightly more than 10% and increase their hourly earnings by almost 42%. This may explain why the workers making the *salaried-to-self* transition are those reporting the lowest levels of satisfaction with their earnings and hours worked. Regarding the other domains in which the newly self-employed are more satisfied than the other movers, the reason can be attributed to a preference for the type of work, which

probably entails better working/environmental conditions and the freedom of choice regarding the workplace, probably closer to their home.

[Table 4 around here]

4.3.2. *The interacting role of self-perceived skill mismatch and previous unemployment*

In our theoretical section, we hypothesized that job transitions can be used by workers to adjust an imperfect worker-job match, especially regarding potential skill mismatches. In this regard, self-employment is probably more flexible than salaried employment. If this is so, among workers making the *salaried-to-self* transition, we should expect those who declared themselves to be skill mismatched before the transition to be more satisfied after the transition than those who did not perceive themselves to be skill mismatched. To test this hypothesis, we interact the variables capturing each transition with the variable indicating whether workers declared themselves to be skill mismatched before the transition. We carry out this analysis of overall job satisfaction and satisfaction with the type of work. The results are reported in columns (1) and (3) of Table 5. As we hypothesized, workers entering self-employment from salaried employment who were skilled mismatched before the transition increase their job satisfaction and satisfaction with the type of work, more than workers who declared themselves not to be skilled mismatched, 0.185 and 0.149, respectively. However, the impact of reporting being skill mismatched before the transition is notably smaller for those workers changing jobs within salaried employment, 0.062 and 0.049, respectively. These results allow us to confirm most of the arguments exposed in subsection 2.3.

Finally, in columns (2) and (4) of Table 5, we report the results that allow us to test if workers moving from unemployment to employment, considered as necessity movers, show interesting results. Workers moving from unemployment are less satisfied with their jobs (overall job satisfaction) and with the type of work. We also hypothesize that this impact is

expected to be greater for those entering self-employment from unemployment. To test this hypothesis, we interact the variables capturing each transition with a dummy variable showing whether workers were unemployed before the transition. We observe that, for workers entering salaried employment, a previous unemployment spell has no impact on job satisfaction (-0.0029) but it does on satisfaction with the type of work (-0.102), respectively. However, and in contrast to our expectation, we do not observe any statistically significant difference between workers entering self-employment. As before, these results allow us to confirm our arguments exposed in subsection 2.4., but only partially.

[Table 5 around here]

5. Conclusions and discussion

The existence of inefficiencies and asymmetries in the labor market results in imperfect worker-job matches. Job transitions may help to adjust these worker-job matches in the labor market. In this article, we studied whether the transition from salaried employment to self-employment improves the perceived job satisfaction, taking this variable as a proxy for the perceived quality of the worker-job match. We used panel data from eleven EU countries covering the period 1994–2001. Our data allowed us to track individuals over time and compare the level of overall satisfaction and satisfaction with specific job domains before and after job-to-job transitions.

Our estimates show a wide variety of interesting and novel results. To the best of our knowledge, no previous studies have analyzed the impact of self-employment on job satisfaction in the same way. Compared with other types of job transitions, the individuals making the transition from salaried employment to self-employment are those who improve their levels of job satisfaction the most. Those who become self-employed also experience a

larger increase in the level of satisfaction with the type of work, distance to the job/commuting and working /environmental conditions, while they obtain lower satisfaction with the earnings and with working hours. In this article, we also investigated for the first time the interaction of self-reported skill mismatches and unemployment with job-to-job transitions on their impact on job satisfaction. Our results confirm that individuals who perceived themselves as being skill mismatched before making a job transition improve their level of satisfaction significantly more than those who declared themselves not to be skill mismatched; however, contrary to our expectation, we did not observe any difference across the different types of transitions. Finally, individuals who move from unemployment to salaried employment are less likely to be satisfied.

From our results, we can derive some interesting implications. First, under the assumption that job satisfaction is a consequence of the self-perceived quality of the job-worker match, our results point out that job-to-job transitions improve the perceived quality of the job-worker match and hence also the functioning of the labor market, those who become self-employed being the ones who improve most. When we analyzed the impact on satisfaction with the type of work, we reproduced the same results as for overall job satisfaction. We found that satisfaction with the type of work is quite an important outcome, since this variable may be linked directly to the skills required to perform on the job and the so-called “entrepreneurial spirit.”

Increasing job satisfaction through more efficient job placement should be a priority in the labor market, since less satisfied workers are less motivated, less productive and less competitive (Berlingieri and Erdsiek, 2012), which in turn has implications in terms of economic and social costs (Allen and Velden, 2001). Hence, our results are suggestive of improved distribution of skills in the labor market through an increase in self-employment, which may lead to an increase in economic performance via gains in competitiveness and productivity.

Last but not least, our study highlights some interesting paths for the future research agenda in entrepreneurship. We think that future research lines should pay more attention to the psychological factors and personality traits affecting the decision to enter and exit from self-employment and how these factors influence the performance and adaptation of the new entrepreneurs. Furthermore, the circumstances under which workers become necessity or opportunity entrepreneurs should be a priority for future research.

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Table 1. Descriptive statistics of the variables in the model

	Salaried		Self-employed	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Overall job satisfaction	4.302	1.169	4.194	1.248
Satisfaction with earnings	3.676	1.287	3.314	1.287
Satisfaction with job security	4.174	1.378	4.028	1.420
Satisfaction with the type of work	4.423	1.194	4.395	1.264
Satisfaction with number of working hours	4.080	1.369	3.557	1.362
Satisfaction with working times (day, night, shift)	4.370	1.261	3.978	1.330
Satisfaction with working environmental conditions	4.305	1.234	4.278	1.301
Satisfaction with distance to job/commuting	4.413	1.377	4.738	1.325
Self-reported skill mismatch	0.530	0.499	0.414	0.493

Source: Own elaboration from the ECHP

Table 2. Estimates of the Determinant of job satisfaction, satisfaction with the type of work.

	Job Satisfaction		Satisfaction with type of work	
	(1)	(2)	(3)	(4)
Moved _t	0.0446*** (0.0105)	0.0326*** (0.0116)	0.0417*** (0.0106)	0.0352*** (0.0117)
Selfempl _t	0.0542*** (0.0163)	0.0380* (0.0212)	0.0947*** (0.0164)	0.0931*** (0.0215)
Skill Mismatch _t	-0.100*** (0.0071)	-0.0952*** (0.0100)	-0.115*** (0.0072)	-0.120*** (0.0101)
Skill Mismatch _t x Selfempl _t	0.0850*** (0.0134)	0.0847*** (0.0170)	0.0794*** (0.0136)	0.0847*** (0.0172)
Unempl _t		-0.0952*** (0.0159)		-0.111*** (0.0161)
Skill Mismatch _t x Unempl _t		-0.0670*** (0.0150)		-0.0357** (0.0152)
Selfempl _t x Unempl _t		0.0499 (0.0308)		0.0114 (0.0312)
Age _t	0.0239*** (0.0047)	0.0252*** (0.0056)	0.0324*** (0.0048)	0.0376*** (0.0057)
Age squared _t	-0.0004*** (6.0×10 ⁻⁵)	-0.0003*** (7.5×10 ⁻⁵)	-0.0003*** (6.0×10 ⁻⁵)	-0.0003*** (7.6×10 ⁻⁵)
Secondary education _t	-0.0227 (0.0167)	-0.0253 (0.0190)	-0.0308* (0.0169)	-0.0340* (0.0192)
Primary education _t	-0.0717*** (0.0179)	-0.0746*** (0.0205)	-0.0689*** (0.0181)	-0.0720*** (0.0207)
Tenure _t	-0.0247*** (0.0022)	-0.0328*** (0.0029)	-0.0227*** (0.0022)	-0.0267*** (0.0029)
Tenure squared _t	0.0006*** (0.0001)	0.0004** (0.0002)	0.0006*** (0.0001)	0.0004** (0.0002)
Log Hours Worked _t	0.0008** (0.0003)	0.0008* (0.0004)	0.0018*** (0.0003)	0.0019*** (0.0004)
Professionals _t	0.0376* (0.0215)	0.0171 (0.0251)	0.0516** (0.0217)	0.0585** (0.0254)
Technicians _t	0.0132 (0.0174)	0.00383 (0.0206)	0.00840 (0.0176)	0.0124 (0.0208)
Clerks _t	-0.0267 (0.0194)	-0.0432* (0.0231)	-0.0495** (0.0196)	-0.0434* (0.0233)
Service workers and sales _t	-0.0752*** (0.0177)	-0.0889*** (0.0209)	-0.110*** (0.0179)	-0.110*** (0.0211)
Agric and fishery workers _t	-0.141*** (0.0295)	-0.157*** (0.0373)	-0.199*** (0.0299)	-0.214*** (0.0378)
Craft and trade workers _t	-0.0716*** (0.0177)	-0.110*** (0.0214)	-0.0908*** (0.0179)	-0.125*** (0.0216)
Plant/machine operators _t	-0.0806*** (0.0198)	-0.138*** (0.0236)	-0.134*** (0.0200)	-0.161*** (0.0239)
Elementary occupations _t	-0.192*** (0.0195)	-0.229*** (0.0231)	-0.284*** (0.0197)	-0.319*** (0.0234)
Industry _t	0.0632** (0.0292)	0.0835** (0.0345)	0.0420 (0.0295)	0.0564 (0.0348)
Services _t	0.101*** (0.0290)	0.131*** (0.0343)	0.112*** (0.0293)	0.138*** (0.0347)
Observations	208,659	147,203	208,728	147,294
R ²	0.008	0.012	0.008	0.012

Notes: 1. *** Significant at 1% ** Significant at 5%. 2. All models include dummy for years and countries. 3. Numbers in parenthesis are the standard errors clustered by individual Marginal effects. Full sample (movers and stayers).

Table 3. Estimates of the determinants of overall job satisfaction and satisfaction with different job domains. Marginal effects.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Overall	Type of work	Earnings	Working hours	Job security	Working times	Environment / Working conditions	Distance to job/ Commuting
Skill Mismatch _t	-0.133*** (0.0156)	-0.182*** (0.0155)	-0.120*** (0.0162)	-0.0443** (0.0176)	-0.0571*** (0.0182)	-0.0270 (0.0171)	-0.103*** (0.0167)	-0.0361** (0.0182)
Unempl _t	-0.137*** (0.0200)	-0.112*** (0.0198)	-0.127*** (0.0207)	-0.0212 (0.0225)	-0.147*** (0.0232)	-0.0155 (0.0218)	-0.0447** (0.0213)	-0.0656*** (0.0232)
Salaried-to-Salaried _t	0.226*** (0.0297)	0.171*** (0.0293)	0.303*** (0.0307)	0.0109 (0.0333)	0.232*** (0.0344)	0.124*** (0.0323)	0.194*** (0.0317)	0.0433 (0.0345)
Salaried-to-Self _t	0.238*** (0.0406)	0.254*** (0.0402)	0.136*** (0.0420)	-0.174*** (0.0457)	0.109** (0.0471)	0.0553 (0.0443)	0.248*** (0.0434)	0.252*** (0.0472)
Self-to-Salaried _t	0.168*** (0.0469)	0.0517 (0.0463)	0.304*** (0.0484)	0.259*** (0.0526)	0.262*** (0.0543)	0.219*** (0.0510)	-0.0528 (0.0500)	-0.233*** (0.0544)
Observations	30,829	30,866	30,855	30,843	30,849	30,846	30,851	30,845
R ²	0.024	0.028	0.033	0.013	0.027	0.007	0.017	0.007
Number of individuals	8,077	8,079	8,079	8,081	8,077	8,079	8,079	8,076

Notes: 1. *** Significant at 1%, ** Significant at 5%. 2. All models include dummy for years and countries. 3. Numbers in parenthesis are the standard errors.

Table 4. Estimates of the determinants of hourly earnings and number of working hours.

	Log (hourly earnings)	Log(hours)
Skill Mismatch _t	-0.003 (0.008)	0.005 (0.004)
Unempl _t		-0.009*** (0.003)
Salaried-to-Salaried _t	0.174*** (0.015)	-0.001 (0.004)
Salaried-to-Self _t	-0.194*** (0.022)	0.114*** (0.006)
Self-to-Salaried _t	0.417*** (0.025)	-0.102*** (0.007)
Number of individuals	8,627	8,072
Sample size	34,324	31,360
R ²	0.147	0.058

Notes: 1. *** Significant at 1%, ** Significant at 5%. 2. All models include dummy for years and countries. 3. Numbers in parenthesis are the standard errors.

Table 5. Estimates of the determinants of overall job satisfaction and satisfaction with different job domains. Cross products with skill mismatch and unemployment spells. Marginal effects.

	Job satisfaction		Type of work	
	(1)	(2)	(3)	(4)
Skill Mismatch _t	-0.185*** (0.0223)	-0.134*** (0.0156)	-0.224*** (0.0220)	-0.182*** (0.0155)
Unempl _t	-0.137*** (0.0200)	-0.145*** (0.0270)	-0.112*** (0.0198)	-0.0710*** (0.0266)
Salaried-to-Salaried _t	0.188*** (0.0344)	0.223*** (0.0335)	0.140*** (0.0340)	0.210*** (0.0331)
Salaried-to-Self _t	0.143*** (0.0476)	0.206*** (0.0455)	0.177*** (0.0471)	0.258*** (0.0450)
Self-to-Salaried _t	0.115* (0.0591)	0.147*** (0.0528)	-0.0028 (0.0583)	0.0484 (0.0522)
Salaried-to-Salaried _t x SM _t	0.0623** (0.0295)		0.0494* (0.0292)	
Salaried-to-Self _t x SM _t	0.185*** (0.0491)		0.149*** (0.0485)	
Self-to-Salaried _t x SM _t	0.0918 (0.0621)		0.0939 (0.0614)	
Salaried-to-Salaried _t x Unempl _t		-0.0029 (0.0376)		-0.102*** (0.0372)
Salaried-to-Self _t x Unempl _t		0.118 (0.0721)		0.0141 (0.0713)
Self-to-Salaried _t x Unempl _t		0.0620 (0.0805)		0.0298 (0.0796)
Observations	30,829	30,029	30,866	30,065
R ²	0.024	0.024	0.028	0.028
Number of individuals	8,077	7,842	8,079	7,844

Notes: 1. *** Significant at 1%, ** Significant at 5% 2. All models include dummy for years and countries. 3. Numbers in parenthesis are the standard errors.

Annex of tables

Table A-1. Definition of the variables used in the econometric estimates

Variable	Description
<i>DEPENDENT VARIABLES</i>	
Skill mismatch	Dummy that takes the value 1 if the individual reports being skill mismatched and 0 otherwise.
Job satisfaction	Dummy that takes the value 1 if the individual is satisfied with his/her work or main activity and 0 otherwise.
Satisfaction with ... type of work, earnings, job security, working hours, working times, environmental/working conditions, distance to the job/commuting	Dummy variables that take the value 1 if the individual is satisfied with his/her work in terms of the types of tasks, earnings, job security, number of working hours, working times, working conditions and distance to the job and 0 otherwise.
Log(hourly earnings)	Natural logarithm of earnings per hour.
<i>EXPLANATORY VARIABLES</i>	
<i>Transitions</i>	
Salaried-to-salaried	Dummies that take the value 1 for the period in which the individual moves and until the end of the transition. The variable takes the value 0 for the previous periods.
Salaried-to-self	
Self-to-salaried	
<i>Demographic characteristics</i>	
Age	Individual's age.
Age squared	Individual's squared age.
Female	Dummy that takes the value 1 if the individual is a woman.
Secondary	Dummy that takes the value 1 if the highest educational level of the individual is secondary education.
Primary	Dummy that takes the value 1 if the highest educational level of the individual is primary education.
<i>Family aspects</i>	
Family size	Number of persons in the household.
<i>Employment characteristics</i>	
Selfempl	Dummy that takes the value 1 if the individual works as a self-employee and 0 for those working in salaried employment.
Unempl	Dummy that takes the value 1 if the individual was unemployed before the current job.
Unempl89	Dummy that takes the value 1 if the individual was unemployed after 1989.
Unempl89long	Dummy that takes the value 1 if the individual was unemployed after 1989 for a period longer than 1 year.
Tenure	Total of years in the current job.
Tenure squared	Total of years in the current job squared.
Log hours worked	Natural logarithm of working hours per week.
Permanent contract	Dummy that takes the value 1 if the individual had a permanent contract in the previous year.
<i>Firm-specific indicators</i>	
<i>Occupations</i>	
Services	Dummy that takes the value 1 if the occupation in the current job is legislator, senior official or manager.
Professionals	Dummy that takes the value 1 if the occupation in the current job is professional.
Technicians	Dummy that takes the value 1 if the occupation in the current job is technician or associate professional.
Clerks	Dummy that takes the value 1 if the occupation in the current job is clerk.
Service workers and sales	Dummy that takes the value 1 if the occupation in the current job is service worker or market sales worker.
Agric. and fish. workers	Dummy that takes the value 1 if the occupation in the current job is skilled agricultural or fishery worker.
Craft and trade workers	Dummy that takes the value 1 if the occupation in the current job is craft or related trade worker.
Plant and machine operators	Dummy that takes the value 1 if the occupation in the current job is plant and machine operator or assembler.
Elementary occupations	Dummy that takes the value 1 if the main occupation in the current job is an elementary occupation.
<i>Main activity</i>	
Agricultural sector	Dummy that takes the value 1 if the main activity in the current job is agriculture.
Industry	Dummy that takes the value 1 if the main activity in the current job is in the manufacturing sector.
Services	Dummy that takes the value 1 if the main activity in the current job is in the service sector.
<i>Country dummies</i>	
Dummies equal 1 for individuals living in the named country and 0 otherwise. The following countries are included: Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Italy, the Netherlands, Portugal and Spain.	

Source: Own elaboration from the ECHP.