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Abstract

Among the OECD countries, Spain faces one of the highest rates of self-employment and Denmark one of the lowest, being the difference specially relevant among women. These two countries present important differences in their institutional environment and labour market conditions: the level of labour market flexibility and the importance of part-time employment, the generosity of the unemployment benefit systems, and the role of the child care policies, among others. In this paper we compare the Danish and Spanish labour markets and analyze to what extent the different evolution of female and male self-employment rates are influenced by country-specific employment conditions. This study is carried out for men and women separately using a strictly comparable panel data set for the two countries. The results indicate that in Spain self-employment seems to offer individuals who normally are considered as marginalized in the labour market a beneficial alternative to wage employment, while this pattern is not so clear in Denmark. Our analysis suggests that an important factor in explaining the difference in Danish and Spanish self-employment rates is the different employment environment that both countries face.

KEYWORDS: Self-employment, transitions, gender differences.

JEL CLASSIFICATION NOS: E64, J18, J38, J58, J24, J44, J62

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1 Introduction

The growth of self-employment is one of the most pronounced changes in labour markets throughout the world. The rate of self-employment has been growing in most OECD countries between the mid-1970s and the early 1980s following a secular decline that dates back to at least the late 1940s. Among self-employed, females represent one of the fastest growing segments. In fact, the steady increase in the number of females choosing to work for themselves represents one of the most striking recent trends in many OECD countries.[4] This increased tendency for people in industrialized countries to be self-employed has created a resurgent academic and political interest in the factors that influence individuals to become self-employed.

Nevertheless, trends in self-employment are far from uniform among the OECD countries. In particular, Spain and Denmark represent countries with one of the highest and lowest rates of self employment. In the last fifteen years, self-employment expanded faster than non-agricultural employment in Spain, while in Denmark self-employment fell relative to overall employment: according to OECD data, by 1995 18% of non-agricultural workers were self-employed in Spain, up from 15% in 1979. In Denmark, the self-employment rate fell from 9% in 1979 to 6% in 1995. Furthermore, there is a considerable difference between Spain and Denmark in the fraction of female self-employment: in 1995 the fraction of women in self-employment was 14.56% in Spain and only 3.78% in Denmark.

The purpose of this paper is to analyse some factors influencing the decision of entering into self-employment for men and women separately. In particular, given the important institutional differences between Denmark and Spain, we are interested in analysing to what extent employment conditions influence self-employment decisions. We pay special attention to several features of the labour market that differ in both countries: the level of labour market flexibility and the effect of business cycle conditions, the importance of part-time employment, the generosity of the unemployment benefit system, and the role of child care policies. This aspect is specially relevant for women. In the study of women's labour force participation, one of the most consistent findings is the negative effect of the presence of young children on the probability of participation. However, the simple choice between being employed and not being employed may mask important aspects of the decision regarding participation. A more enlightening approach could be to consider the effect of employment options that could lessen

[4] Devine (1994) shows that in the U.S. the self-employment rate among women increased from 4.1 percent in 1975 to 6.7 percent in 1990.

the constraints which child care needs to place on the mother's employment. Among these employment choices, we could consider self-employment and part-time employment. Given that the institutional conditions in terms of access and cost of child care are markedly different in Denmark and Spain and that part-time employment is much more widespread in Denmark, we investigate the extent to which self-employment is used in both countries as a way of obtaining more flexibility in order to combine family and working life.[5]

The dynamic aspects of self-employment are the focus of our research. To this end, we use six waves from a strictly comparable micro data set for Denmark and Spain, The European Community Household Panel (ECHP). Many studies focus on the stock of self-employed individuals, but they tell us little about changes in the process by which people become, or cease to be, self-employed. The longitudinal nature of the ECHP permits a closer examination of some key aspects of entrepreneurship. As far as the empirical strategy is concerned, we offer evidence on the characteristics of the self-employed in Denmark and Spain and estimate reduced form parametric transition probabilities from employment and non-employment to self-employment, for men and women separately.

The paper is organized as follows. Section 2 describes the underlying theoretical framework and relationships to be studied. The relevant features of the Danish and Spanish labour markets are described in Section 3 and our database is described in Section 4. In Section 5 we present the estimation strategy and discuss the empirical results. The final section summarizes and concludes.

2 Conceptual framework

Our underlying theoretical approach is based on the comparative advantage framework used in Evans and Jovanovic (1989), Evans and Leighton (1989) and Taylor (1999), among others. The individual will switch from employment or non-employment (unemployment and out of labour force) to self-employment if the expected value of self-employment exceeds the expected value of the other alternative. We discuss below some of the factors that affect self-employment decisions.

Institutional factors. There has been relatively little work on how institutional factors

[5]Some studies that include women in their estimates of the determinants of self-employment are McPherson (1988), Boden (1996) and Dunn and Holtz-Eakin (1996), Williams (2000), and Cowling and Taylor (2001).

influence self-employment.[6] In this paper, because of our lack of regional disaggregation, these issues can be only examined indirectly by comparing the two economies.

(i) Job security legislation. It may be hypothesized that, if the job security of new hirings is high, employers will be more cautious about taking on new staff on a permanent basis, preferring other forms of employment relationship, such as subcontracting work to self-employed people.[7]

(ii) Unemployment benefit system. According to the standard search theory, the generosity of the unemployment insurance system compensates the loss of income, thus reducing the incentive to convert from a position as unemployed to one as employed. Therefore, we expect a disincentive effect of unemployment benefits on the probability of entering self-employment.

(iii) Part-time employment and child care policies. The negative correlation between the presence of young children and the probability of participation is well documented. Problems encountered in arranging child care can act as a substantial constraint on employment for mothers with pre-school children. From this point of view, self-employment provides an employment option that could lessen the constraint. Nevertheless, this role of self-employment could be reduced by the existence of child care policies and the possibility of working part-time.

Business cycle conditions. In this regard the theory provides an ambiguous prediction. The sign of the relationship may be analysed in terms of what has been called "pull" and "push" factors. "Pull" factors are stronger when conditions are good. The prospects for business are better and people may be drawn into self-employment, knowing that if the venture fails, another job offer will not be far away. Less favourable market conditions may provide "push" factors increasing the labour supply for self-employment.

Gender differences. The reasons that lead women and men to enter self-employment can be very different. Personal characteristics such as family size, marital status, and the presence and ages of children play a different role for women than they do for men.

Barriers in the wage sector. One view held by the sociology literature is that the lack of opportunities for wage employment is an important determinant of self-employment (see, e.g. Devine (1994), and Evans and Leighton (1989)). Disadvantaged groups facing discrimination in the wage sector may use self-employment as a source of economic advancement. We see this in a number of ways. Prior labour market status and the attachment to the labour force could be proxies for opportunities in the labour market. Examining the transition into self-employment from wage employment, unemployment and out of the labour force enables us to assess whether

[6] Some exceptions are Blau (1987), Long (1982), and Schueltze (2000).

[7] See Bertola (1990).

nonemployed individuals are proner to become self-employed than salary-earning workers are. Previous wage is also used to analyse the impact of this prediction: does self-employment offer better opportunities for individuals at the bottom of the wage distribution?

Capital constraints. The fact that high capital income usually increases the likelihood of becoming self-employed is taken as evidence for the existence of a liquidity constraint (see e.g. Evans and Leighton (1989), and Dunn and Holtz-Eakin (2000)). The underlying idea is that lack of capital should prevent some from entering into self-employment. However, this is not the only explanation which is consistent with the fact that high capital income increases the likelihood of becoming self-employed. An alternative explanation is that agents are risk averse and that the income as self-employed is more uncertain. In this case, high capital income will make the risk associated with working as self-employed less important. This means that the likelihood for being self-employed could increase with a non-regular income, even in the absence of a liquidity constraint.

3 The Danish and Spanish labour markets: general trends and institutional features

3.1 Some institutional factors affecting self-employment

(i) *Labour market flexibility.* The Spanish labour market is characterized by a high degree of employment protection. This is achieved by high firing costs, although along the eighties and early nineties partial reforms have significantly relaxed some restrictions. The most significant change in this regard is the introduction in 1984 of new fixed-term contracts with lower dismissal costs than the permanent ones (in 1993 these represent about 30% of dependent workers). On the other hand, Denmark has very little regulation of hiring and dismissal and is, together with U.K. and Ireland, the country in Europe with the most gentle rules concerning employment protection. Concerning the fixed term contracts, no limitation in duration is demanded. However, fixed term contracts are only 12% of the total employment in Denmark.

(ii) *The unemployment insurance system.* In Denmark, the public support incentive structure has been classified as being too generous by numerous OECD reports. To be entitled to unemployment benefit, the requirement is, besides the membership of an unemployment fund, at least six months of work within the last three years and availability to take on a job. The maximum duration of unemployment benefit is of two and a half years. The replacement rate

in Denmark is 90% subject to a ceiling. In Spain the unemployment insurance system is less generous. Since 1992 the requirement is twelve months of contributions over the past six years. In 1992, the replacement ratio has been reduced from 80% of the previous wage during the first six months to 70% in months $1-6$ and to 60% afterwards. It is subject to a floor of 75% of the minimum wage and to a ceiling depending on the family responsibilities. The duration of the unemployment benefit is equal to one third of tenure (from 1 year), subject to a maximum of two years.

(iii) *Child care*. The usage of child care is very frequent in Denmark, e.g. in 1996, 85% of all children aged 3-5 were using a kindergarten. Although this number has been steadily increasing during the last 15 years, the usage of child care has traditionally been high (in 1980 it was 50%). Also for small children (aged 0-2) the use of child care is remarkable high, about 50% in 1996. Finally, the child care is subsidized by the state and the maternity leave is 6 months. In Spain the usage of child care is less common than in other European countries. A distinguishing feature that characterizes the Spanish child care policies is that most of them are programs for children aged three or over. In contrast, the percentage of Spanish children aged two or under cared for in public or private centers is one of the lowest in the European Union (8.7%) and the maternity leave is 4 months.

3.2 Summary statistics for the labour markets

The last fifteen years saw a reversal of the long-term trend away from self-employment in many OECD countries: overall, the predominant trend in self-employment is upward. Focusing our attention on Denmark and Spain, self-employment expanded faster that overall non-agricultural employment in Spain, while in Denmark self-employment fell relative to overall employment. In spite of these differences, the proportion of total self-employment in agriculture has declined dramatically in both countries between 1979 and 1995 (from 31.8% to 21.86% in Denmark and from 42.12% to 22% in Spain, according to OECD data). This evolution reflects the special characteristics of self-employment in agriculture, a sector in which employment in general is decreasing noticeably. To abstract from the effect of the decline in agricultural employment, we exclude this sector from our analysis.

Table 1 shows that there are a number of striking differences in the patterns according to sex. Firstly, the level of non-agricultural self-employment is much lower in Denmark for both men and women. Secondly, Spain has had an increase in self-employment for both sexes.

In Denmark the proportion of self-employed women is more or less constant along the period while the proportion of men has decreased. Thirdly, the gender difference is more pronounced in Denmark, where Danish women are less likely to work as self-employed compared to Danish men.

Comparing labour market conditions in Denmark and Spain, a striking difference is the ratio employed in part-time occupations. Both are relatively more important in Denmark. Part-time employment has stagnated on a high level in Denmark in the 1990s, particularly for women.[8] The key issue concerning self-employment is that the high level of this form of employment could reduce the incentives to enter self-employment looking for more flexibility, while in Spain the lack of part-time jobs may push some women into self-employment.[9]

Another feature which is markedly different in the two countries is the labour force participation, which is higher in Denmark for men and, in particular, for women.[10] Spanish female labour force participation rates have historically been among the lowest of all OECD countries.[11] However, participation among women have increased significantly during the 1970s and the 1980s, specially among younger women. On the other hand, in Spain male participation has been declining considerably since the 1970s, as in many other European countries, while in Denmark there has been a less clear decrease.

Concerning the unemployment rate, the Spanish labour market has displayed one of the highest unemployment rates in the OECD, with an average unemployment rate close to 20% since the mid-1980s, while Denmark faces one of the lowest (in some industries unemployment is below 4%). Women, both in Spain and Denmark, experience unemployment more often than men. However, Spanish women are much more exposed to unemployment than Danish women. Another characteristic of Spanish unemployment is long unemployment durations: the proportion of the unemployed who stay unemployed a year or more has followed an increasing pattern in Spain, while in Denmark the level of long-term unemployment has decreased during the 1990s.

[8] The percentage of the labour force working part time is about 10% for Danish males and 20% for Danish females, while for Spain these figures are around 2% and 12% respectively.

[9] In fact, adding the proportions of self-employment and part-time employment in both countries the figures are more similar.

[10] The labour for participation was in 1995 73.6% for women and 85.0% for men.

[11] The labour force participation was in 1995 45.1% for women and 73.6% for men.

4 Data description

4.1 The data set

The data we use come from the European Community Household Panel (ECHP), which is a panel of households in the European Union provided by Eurostat. At the present the ECHP contains six waves covering the period 1994-1999.[12] Every year the selected households in each country are interviewed about issues relating to demographics, labour market, income and living conditions. One of the advantages of this sample is the fact that the same questionnaire is used in all countries, which makes the information directly comparable. A second advantage is the longitudinal aspect of the data, which allows us to observe transitions into self-employment. Therefore the differences in the stock of self-employed can be decomposed into differences in the composition of the labour force and differences in the behaviour (e.g. responses to unemployment).

Our sample includes individuals aged 20 to 59. We select the 20-59 age band because we can find different rules of behaviour in the youngest and oldest individuals, and this can distort the results. We also excluded the agricultural sector from our sample. Self-employed workers are defined as those individuals who identify themselves as self-employed as their main activity (with or without employees). Unpaid family workers are not counted as self-employed.

The explanatory variables used in the estimation can be classified into two groups: demographic variables relating to the individual, and economic variables relating to business cycle conditions. In the first group we include variables reflecting the family background and variables relating to the earnings and wealth of the individual. Business cycle effects are captured by including the unemployment rate by gender and age.

Focusing our attention on those individuals working at the time of the interview, and discarding observations with missing data for any of the relevant variables, results in a sample of 13,520 observations for the whole period considered for Denmark, of which 51.2% are males, and 48.8% are females. For men, 6.8% are self-employed and the remaining 93.2% are wage-employed. For women, 3.7% are self-employed and 96.3% are in wage-employment. For Spain, we have a sample of 31,321 observations, of which 64.4% are males and 35.6% are females. For males, 20.1% are self-employed, while for women 13.3% are self-employed.

[12] The results and conclusion stated in in this paper are ours and the Eurostat is not responsible for those.

4.2 The self-employment choice

Descriptive statistics for Denmark and Spain are presented in Tables A1 and A2, respectively. The variables are defined in more detailed in the Appendix. It can be seen from the tables that self-employed workers tend to be older than wage-employees and are also more likely to be married. For Denmark, self-employees are more likely to be skilled, while for Spain the reverse is true. This evidence is very important for analyzing what type of individuals find more desirable being self-employed in each country.

Concerning labour market behaviour, men and women tend to work more hours in self-employment than in wage-employment, but the differences are larger in Spain. Moreover, the data suggest a link between work schedules and self-employment for women with small children in Spain. The average number of working hours of Spanish self-employed women is about 44 per week, whereas the corresponding figures for women without and with small children is 45 and 40 respectively. Furthermore, these differences are not observed neither for Spanish women in wage-employment nor for Danish women or men in general. These facts indicate that in Spain self-employed women with small children tend to consume relatively greater amounts of work-scheduling flexibility. This might also reflect differences in the availability of flexibility in the alternative employment sectors between Spain and Denmark.

Regarding income, on average self-employed workers in Spain and self-employed women in Denmark have less personal income and less income from work, while for self-employed men in Denmark is the opposite. For Spanish men in self-employment they work about 20% more than Spanish men in wage employment but earn about 15% less. This seems to suggest that Spanish self-employed men are worse off in terms of income and working hours. In terms of occupational status, Danish women in self-employment are more likely to work in the service sector, while Spanish women are more likely to work in the construction/wholesale sector. Men, by contrast are more likely to work in the construction/wholesale sector both in Denmark and Spain. When comparing the level of satisfaction with the main activity, Danish self-employed are significantly more satisfied than Danish wage employed, while their is no difference in Spain.

In conclusion, the tables show quite different educational and income distributions between Denmark and Spain. In short, the data imply that in Denmark it is mainly workers with high education and males with high earnings who are self-employed, while it is the opposite in Spain. Moreover, in Spain self-employed women with small children tend to work less hours than the

average, maybe as a way of obtaining more flexibility.[13]

5 Estimation results: Transitions into self-employment

To model the transitions into self-employment, we use discrete choice models. We focus on the choice between different types of work, rather than modelling the labour supply. Therefore, we only consider transitions from wage employment (we) and non-employment (ne) (unemployment or out of labour force) to self-employment, being the alternative employment. Our dependent variable takes the value 1 if the individual who was a wage-worker or a non-employed in period $t-1$ becomes self-employed in period t, and 0 if the individual continues or becomes a wage-worker in period t. Thus, all the following results refer to the probability of choosing self-employment, compared to choose wage employment.[14]

We estimate binary logit models for each country and for men and women separately, conditioning on the labour market status before the entry (employment or non-employment) and by a set of observed personal characteristics, X, and economic variables, Y. We use information about the individual's characteristics a period earlier (i.e. before switching), otherwise possible consequences of transition are likely to be confused with the causes of it. In order to capture possible different effects of X on the transitions from we or ne, we interact some explanatory variables with the individual's previous labour market state.[15] With respect to the general economic variables, we consider that when people make their transition decision, they use prior economic indicators in assessing their choice. Therefore, we use macroeconomic variables that are averages of the values over the previous year.

Table 2 shows the number of observations per transition from employment and non-employment into self-employment.[16] One of the most prominent feature for Denmark is the relatively low

[13] To complete the descriptive statistics, we have performed a static logit analysis to sort out the effects of these influences, ceteris paribus, on the choice of type of employment. The results confirm the previously reported evidence.

[14] This approach is equivalent to estimate a multinomial discrete choice model using wage-employment as the benchmark.

[15] We would rather focus on transitions for employees and non-employees individuals separately. However, due to the small sample size in some cases, we have just conditioned on previous state and interacted it with some of the explanatory variables. For the same reason, our estimates do not control for unobserved heterogeneity between individuals.

[16] The number of transitions found in Denmark is low. However, we have performed a similar analysis using a larger data set (but less comparable with the Spanish data) for Denmark and the results are very similar to

number of transitions into self-employment: 1.55% of males and 0.97% of females become self-employed, compared to 4.99% and 4.96% of Spanish males and females, respectively. If one specifically looks at the transition rate from non-employment, it is around 4% for Danes (3.7% for males and 4.3% for females) whereas the similar transition rate in Spain is about 17% (for males 17% and for females 16.9%). On this initial evidence, we could say that in Spain individuals who are "disadvantaged" in the labour market are more likely to start business.

Table 4 presents the estimation results of the transition probabilities into self-employment, conditioning on the previous labour market state. The qualitative impact of the variables are discussed in terms of the sign and statistical significance of the estimated coefficients. We also report in Table 5 the predicted probabilities for some individual types.

We begin by considering the effect of labour income. We find that Spanish men and women and Danish women in the bottom part of the wage distribution are more likely to leave employment and start as self-employed. This finding is consistent with the view that disadvantaged -e.g. low wage-workers- tend to become self-employed and suggests that this group benefits more from being self-employed than better paid workers. For Danish males the opposite is true: the probability of switching for a Danish male previously employed is 1.47, while this figure rises to 2.33 if the individual has high wage. This result confirms that self-employment in Denmark does not seem to offer low paid male workers a beneficial alternative.

Turning to the entrance from non-employment, we see that non-employees are more likely to enter self-employment than salary workers, specially in Spain. For Spanish non-employed women, the probability of switching is about eight times larger than for employed women. Again this result supports the disadvantaged theory and the view that "misfits" are pushed into self-employment more often in Spain. Table 3 offers additional evidence supporting this hypothesis. Looking at those individuals who are not employed in a given period and who actually find a job the subsequent year, we find that those who had bad or very bad chances of getting a job in Spain are more likely to become self-employed. For Denmark the results are the opposite.

When examining the effect of unemployment benefits, we find a strong negative effect in Spain, while this effect is non-significant in Denmark. Furthermore, a close attachment to the wage-employment, here measured as tenure in employment, has a strong negative impact on the entrance into self-employment. This result is found for all four groups but most pronounced for Spanish women.

those found with the present data.

If we instead examine whether self-employment offers more family friendly work environment, we find that having small children has a positive significant impact on the choice of self-employment for Spanish women coming from non-employment, and negative for previously employed women, while for Danish women we find the opposite effect. These results are consistent again with the fact that marginalized groups in the labour market, in this case non-employed women with small children, are more likely to enter self-employment in Spain and this activity seems to offer the possibility of better handling family and working life. In Denmark, however, this does not seem to be the case.

When examining the impact on the choice of sector we find less differences between Denmark and Spain. If we compare the Hotel/transport sector, which is mainly a low skilled sector, to the wholesale/construction sector, we find that for all four groups the probability of becoming self employed is lower than in the wholesale/construction sector. On the other hand, if we look at a high skilled sector, as the finance sector, we find that especially women in Denmark and Spain have low probability of becoming self-employed compared to the wholesale/construction. Comparing the impact of different sectors actually suggest no major differences between Denmark and Spain. This somehow surprising result may be due to the fact that we already have controlled for the educational attainment of the individuals.

Regarding the effect of unemployment rate, on its own the effect of this variable suggests that in Spain highly educated individuals are more likely to move towards self-employment when economic situation improves. This result supports the prosperity "pull" argument for this type of workers. The effect of unemployment rate is not significant for Denmark.

Finally, the results indicate that having a relative in the self-employed sector increases the probability of entering self-employment in all cases. This result does partly support the hypothesis about transfers of human capital. In all cases we obtain a non-significant effect of assets on the probability of entrance, except for Danish males, for which we find that assets have a positive and significant impact on the probability of entering upon self-employment. As mentioned in the theoretical section, this could be interpreted as either evidence that this group is more often liquidity constrained or that they are more risk averse.

6 Concluding remarks

In the introduction, we highlighted that the rate of self-employment is much higher in Spain than in Denmark, and especially that Spanish women are more likely to take a job as self-employed

compared to Danish women. In the paper, we find some evidence which can contribute to explain the differences concerning the rate of self-employment in Denmark and Spain.

We find that self-employment seems to hold attraction for different groups in the two countries. The most striking difference between Spain and Denmark is that in Spain self-employment seems to offer individuals who normally are considered as marginalized in the labour market a beneficial alternative to wage employment, while this pattern is not so clear in Denmark. In Spain, individuals in the bottom part of the wage distribution start more often their own business. Moreover, the entrance form non-employment is considerably higher for Spanish than for Danish workers. Another significant difference is that non-employed Spanish women with small children seem to choose to work as self-employed more often than Danish women. This contributes to the picture that in Spain more marginalized groups use self-employment, while the picture for Denmark is more blur.[17]

Searching for explanations, we argue that several country-specific aspects may be important for understanding these findings. Firstly, in Spain the social security system is not as generous as in Denmark. This means that groups at risk for being marginalized in the labour market are to a larger extent forced to search for alternative employment, such as self-employment. Secondly, the high unemployment rate in Spain has made it even more difficult to enter the wage employment sector, which also can explain the high probability for individuals not working to entering upon self-employment in Spain. Thirdly, part-time employment is widely used in Denmark, while in Spain a much smaller proportion of employees are part-timers. This could reinforce the role of self-employment in Spain as an attractive alternative for certain type of workers (specially women), while in Denmark this role is played partially by part-time employment.

An extra reason is that the significant difference in the gender pattern between Spain and Denmark may be related to the female labour force participation. Denmark has a long tradition for a high female labour force participation, while Spain has had a much lower female labour force participation. This means that Danish women are more integrated in the labour market, and therefore might find it easier to enter the wage employment compared to Spanish women. Finally, the lack of relatively cheap child care in Spain may also put some extra incentives on women with small children to start as self-employed, because it offers a way of combining the two aspects: having children and having a job.

[17]Similar results are found using two other data sources: Register data (0.5 percent of the population) for Denmark and the Spanish Continuous Family Expenditure Survey for Spain.

We are aware of the fact that some other aspects of the two labour markets, such as different rates of unionization or firm size, may be also potentially important in explaining part of the differences in self-employment rates. In this paper, our explanation relies mostly on Spain having a set of self-employment-prone labour institutions and economic conditions, in particular the social security system, unemployment rates, part-time employment and the child-care policies. Nevertheless, we also believe that the other factors are likely to be complementary to our explanation. Notwithstanding, a number of policy implications may arise from our results. The fact that self-employment provides an outlet for relatively poor workers in Spain compared to Denmark suggests at least two types of policy recommendations. On the one hand, that those policies which provide assistance to start and operate a business may assist in alleviating the negative effect of general economic conditions and the labour market environment. On the other hand, that probably the effort instead should be directed towards improving the functioning of the wage labour market, in terms of the employability conditions of that group of workers.

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Appendix

Variable definitions and summary data are reported below.

Age	Age reported by the individual, ranging from 20 to 59.
Married.	Dummy equals 1 for cohabiting individuals and 0 otherwise.
Further education.	Dummy equals 1 for individuals with further education and 0 otherwise
Skilled.	Dummy equals 1 for skilled individuals and 0 otherwise
Child 0-2.	Dummy for individuals with children younger aged 0 to 2.
Child 3-6.	Dummy for individuals with children younger aged 3 to 6.
Child 7-16.	Dummy for individuals with children younger aged 7 to 16.
Relatives se.	Dummy equal to 1 if the there are any in the household who is self-employed and 0 otherwise.
Work income.	The total labour income
Capital income.	Capital income by the individual
Benefits.	Dummy equals 1 for individuals receiving unemployment benefits and 0 otherwise.
ne.	Dummy equal to 1 if the individual was unemployed one period before entering self-employment and 0 if out of labour force.
Working hours.	Number of working hours.
Job tenure.	Number of years in present job, 0 if not employed
Private sec.	Dummy equals 1 working in the private sector (versus the public sector)
Hotel/Transport.	Dummy for working in the Hotel or Transportation sector
Finance.	Dummy for working in the Finance institions or Business sector
Wholesale.	Dummy for working in the wholesale or construction sector
Services.	Dummy for working in the service sector (public or private)
Unemployment Rate.	Age (five years band) and gender specific national unemployment rate (source: Labour statistics ILO).

Tables A1 and A2 provide summary statistics of the variables used in the analyses.

Table A1: Descriptive statistics for the Danish data

	Men				Women			
	SE		WE		SE		WE	
Demographics								
Age	44.62	(0.393)	39.52	(0.124)	42.48	(0.581)	39.50	(0.124)
Unskilled	0.157	(0.016)	0.182	(0.005)	0.165	(0.023)	0.181	(0.005)
Skilled	0.519	(0.022)	0.466	(0.006)	0.502	(0.029)	0.427	(0.006)
Married	0.886	(0.014)	0.783	(0.005)	0.886	(0.019)	0.790	(0.005)
Children 0-2	0.132	(0.015)	0.126	(0.004)	0.075	(0.016)	0.111	(0.004)
Children 3-6	0.183	(0.017)	0.173	(0.005)	0.161	(0.023)	0.175	(0.005)
Children 7-16	0.369	(0.021)	0.299	(0.005)	0.282	(0.028)	0.336	(0.006)
Number of self employed in hh	0.132	(0.015)	0.027	(0.002)	0.322	(0.029)	0.062	(0.003)
Labour market								
Average Working hours	53.07	(0.633)	40.43	(0.120)	41.45	(1.197)	34.44	(0.111)
Working hours if no small children	53.18	(0.694)	40.49	(0.131)	41.57	(1.271)	34.40	(0.120)
Working hours if small children	52.33	(1.469)	39.98	(0.274)	39.84	(3.052)	34.79	(0.277)
Previous unemployment	0.312	(0.021)	0.346	(0.006)	0.345	(0.030)	0.361	(0.006)
Number of previous unempl. spells	1.775	(0.176)	2.099	(0.045)	1.946	(0.254)	1.860	(0.042)
Satisfaction (1 low- 6 high)								
with main activity	5.16	(0.046)	4.969	(0.012)	5.371	(0.057)	4.954	(0.012)
with job working hours	4.183	(0.066)	4.841	(0.015)	4.573	(0.091)	4.895	(0.015)
Income in EURO (PPP)								
Personal income	24,610	(1387)	16,613	(90)	12,238	(682)	13,621	(68)
Income from work	22,436	(1319)	15,640	(92)	9,716	(664)	11,355	(68)
Capital income	835	(183)	185	(19)	141	(31)	90	(7)
Sector								
Manufactoring	0.132	(0.015)	0.268	(0.005)	0.125	(0.021)	0.115	(0.004)
Construction/Wholesale	0.450	(0.022)	0.219	(0.005)	0.282	(0.028)	0.109	(0.004)
Transport & Hotel	0.098	(0.013)	0.102	(0.004)	0.098	(0.019)	0.057	(0.003)
Financial institutions & Business	0.134	(0.015)	0.119	(0.004)	0.043	(0.013)	0.101	(0.004)
Service (private & Public)	0.187	(0.017)	0.293	(0.005)	0.451	(0.031)	0.618	(0.006)
N^o Observations	509		6940		255		6840	

Table A2: Descriptive statistics for the Spanish data

	Men				Women			
	SE		WE		SE		WE	
Demographics								
Age	40.69	(0.160)	37.55	(0.082)	39.68	(0.257)	35.59	(0.099)
Unskilled	0.605	(0.008)	0.525	(0.004)	0.550	(0.013)	0.400	(0.005)
Skilled	0.201	(0.006)	0.208	(0.003)	0.203	(0.010)	0.229	(0.004)
Married	0.798	(0.006)	0.704	(0.004)	0.701	(0.012)	0.584	(0.005)
Children 0-2	0.095	(0.005)	0.107	(0.002)	0.077	(0.007)	0.077	(0.003)
Children 3-6	0.161	(0.006)	0.157	(0.003)	0.140	(0.009)	0.119	(0.003)
Children 7-16	0.414	(0.008)	0.365	(0.004)	0.337	(0.012)	0.326	(0.005)
Number of self employed in hh	0.232	(0.008)	0.095	(0.003)	0.407	(0.015)	0.149	(0.004)
Labour market								
Average Working hours	51.508	(0.251)	42.737	(0.075)	44.347	(0.467)	35.580	(0.119)
Working hours if no small children	51.429	(0.263)	42.642	(0.079)	44.71.1	(0.484)	35.619	(0.125)
Working hours if small children	52.256	(0.858)	43.533	(0.225)	40.000	(1.721)	35.118	(0.384)
Previous unemployment	0.367	(0.007)	0.457	(0.004)	0.402	(0.012)	0.539	(0.005)
Number of previous unempl. spells	2.029	(0.072)	2.289	(0.029)	2.152	(0.304)	2.011	(0.053)
Satisfaction (1 low- 6 high)								
With main activity	4.363	(0.020)	4.250	(0.010)	4.308	(0.034)	4.235	(0.013)
With job working hours	3.268	(0.023)	3.932	(0.011)	3.487	(0.039)	4.049	(0.015)
Income in EURO (PPP)								
Personal income	12,480	(214)	14,388	(79)	6,526	(256)	10,275	(79)
Income from Work	11,730	(199)	13,775	(76.98)	5,932	(237)	9,743	(78)
Capital income	314	(23)	216	(9)	87	(12)	93	(6)
Sector								
Manufacturing	0.141	(0.005)	0.292	(0.004)	0.080	(0.007)	0.135	(0.003)
Construction/Wholesale	0.471	(0.008)	0.276	(0.004)	0.421	(0.013)	0.152	(0.004)
Transport & Hotel	0.205	(0.006)	0.127	(0.003)	0.140	(0.009)	0.093	(0.003)
Financial institutions & Business	0.114	(0.005)	0.085	(0.002)	0.111	(0.008)	0.116	(0.003)
Service (Private & Public)	0.067	(0.004)	0.217	(0.003)	0.247	(0.010)	0.502	(0.005)
N^o Observations	4047		16129		1492		9653	

Table 1. Non-agricultural self-employment in Denmark and Spain by gender (as a proportion of total employment)

	1979	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Denmark												
Male	9.96	8.07	8.14	8.14	8.19	8.03	7.79	8.84		8.85	8.35	7.94
Female	3.55	3.47	3.62	3.64	3.71	3.61	3.55	3.91		4.02	4.02	3.78
Spain												
Male	17.08	19.77	19.40	20.26	19.75	19.24	19.04	19.34	20.32	20.89	21.22	20.86
Female	12.54	14.22	14.45	15.34	14.71	14.07	13.28	13.43	14.03	14.45	14.01	14.56

Source: OECD Labour Force Statistics (various).

Table 2. Number of observations per transition

	Destination state							
	Denmark				Spain			
	Males		Females		Males		Females	
Source State	WE	SE	WE	SE	WE	SE	WE	SE
WE	5687	78	5218	24	10608	284	5645	84
NE	483	19	782	35	1781	366	1947	396

Table 3. Chances of finding a job within the next year

	Denmark				Spain			
	Male		Female		Male		Female	
	WE	SE	WE	SE	WE	SE	WE	SE
Bad or very bad	13%	7%	21%	20%	59%	72%	67%	85%

Table 4. Probability of entering into self-employment

	Denmark		Spain	
Variable	Female	Male	Female	Male
Constant	-7.655 (-1.94)	-10.289 (-3.47)	-7.345 (-3.23)	-9.975 (-6.04)
Age	0.130 (0.78)	0.292 (2.24)	0.239 (3.17)	0.318 (4.64)
Age^2	-0.0007 (-0.38)	-0.003 (-1.98)	-0.002 (-2.99)	-0.004 (-4.58)
Married	0.575 (1.21)	-0.107 (-0.65)	0.012 (0.08)	0.451 (3.47)
Further education	2.736 (1.81)	0.937 (1.05)	1.250 (2.48)	1.460 (4.77)
Skilled	0.251 (0.63)	0.636 (1.70)	-0.065 (-0.39)	0.372 (3.42)
Relative se	1.926 (6.08)	0.748 (1.68)	0.927 (8.97)	0.866 (9.52)
Child 0-2	1.034 (2.01)	0.565 (1.70)	-0.875 (-1.46)	0.020 (0.11)
Child 0-2 x ne	-0.507 (-0.74)	0.029 (0.04)	1.535 (2.39)	0.243 (0.88)
Child 3-6	0.533 (1.41)	-0.038 (-0.13)	-0.091 (-0.50)	-0.197 (-1.51)
Child 7-16	-0.498 (-1.29)	-0.048 (-0.19)	-0.084 (-0.65)	-0.179 (-1.81)
Wholesale	0.257 (0.65)	0.151 (0.56)	0.445 (2.61)	0.527 (4.62)
Hotel/Transport	0.136 (0.21)	-0.298 (-0.68)	-0.050 (-0.24)	0.363 (2.53)
Finance	-0.586 (-0.89)	0.028 (0.09)	-0.171 (-0.84)	0.614 (3.79)
Services	-0.635 (-1.73)	-1.069 (-2.41)	-0.778 (-4.59)	-0.377 (-2.07)
Work income	-0.0001 (-3.33)	0.00003 (3.18)	-0.00008 (-4.93)	-0.00005 (-6.41)
Capital income	0.0002 (0.80)	0.00004 (2.58)	-0.0001 (-0.79)	0.00002 (0.46)
Benefits	-0.574 (-1.33)	0.6415 (1.10)	-1.093 (-4.01)	-0.976 (-6.00)
Job tenure	-0.108 (-1.67)	-0.097 (-2.54)	-0.126 (-3.68)	-0.109 (-5.71)
Private sector	1.625 (3.08)	0.940 (2.14)	0.344 (1.22)	0.765 (3.46)
Working hours	-0.187 (-4.05)	-0.127 (-3.98)	-0.079 (-2.64)	-0.073 (-3.17)
Working $hours^2$	0.003 (4.07)	0.002 (4.75)	0.001 (2.86)	0.001 (4.62)
U. Rate	10.412 (0.82)	-6.121 (-0.57)	0.327 (0.14)	3.398 (2.30)
U. Rate×Further edu.	-28.146 (-1.73)	-3.212 (-0.20)	-2.737 (-1.66)	-6.511 (-4.00)
NE	-0.690 (-0.99)	0.197 (0.22)	0.295 (0.64)	1.148 (2.30)
N° observations	6059	6267	7992	13043
Log-likelihood	-239.833	-433.076	-1207.593	-2140.549

Table 5. Predicted probabilities of entering into self-employment

	Denmark		Spain	
	Female	Male	Female	Male
Standard[1] (from we)	2.22	1.47	3.33	5.29
From ne	16.06	3.53	26.71	38.13
Low earnings[2](from we)	4.59	1.15	5.27	7.90
High earnings (from we)	0.50	2.33	1.27	2.30
Unskilled (from we)	1.74	0.78	3.51	3.70
By benefits (from ne)	9.73	6.49	10.85	18.85
Services (from we)	0.92	0.43	1.00	2.21
Hotel/Transport (from we)	1.97	0.94	2.04	4.52
Finance (from we)	0.76	1.36	1.79	5.45

Notes: 1. Standard: age 40, married, spouse non self-employed, with children 3-6, skilled, working hours 40, private sector, whole sale, job tenure 2 years and average wage and capital income. For non-employed probabilities, individual not receiving benefits and less than one year non-employed. Unemployment rate 10%. 2. Low and high earnings are earnings half and double the average ones respectively.