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Abstract

This paper aims at evaluating the effect of the current economic crisis on household income and poverty in Spain and Italy. As data on 2009 income has not been released yet, we have carried out a microsimulation analysis using data drawn for the European Statistics on Income and Living Conditions Survey of 2007 and data of the Labour Force Survey of 2009. We propose a technique that is based on the imputation of transition probabilities into different labour market status as calculated on 2009 data on the data for 2007 and income simulation. Our results reveal a 3% reduction in equivalised household income in Spain and a 1.16% reduction in Italy. Despite this difference, for both countries the Gini Index increases from 0.31 to 0.32, suggesting that the Spanish unemployment protection system is more generous than the Italian one.

Keywords: unemployment, crisis, simulation, poverty
JEL classification: J6, I32

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Introduction[1]

The current economic crisis has significantly increased unemployment rates. Among other things, the experience of unemployment entails a decrease in purchasing power, a loss of human capital, a discouraging effect among the long-term unemployed and the inactive (Berger, Keuschnigg, Keuschnigg, Miesse Strohner & Winter-Ebner, 2009, p. 14) as well as wide-ranging social costs (Sen, 1997a,b).

The main purpose of this paper is to evaluate the effect of joblessness on household income in Spain and Italy. We carried out a microsimulation analysis using the European Statistics on Income and Living Conditions Surveys together with Labour Force Survey data since EU-SILC data (which are more complete in terms of data on income and wellbeing) are usually issued after a longer delay period, thus not allowing for a prompt assessment of the impact on the economic cycle.

The microsimulation technique used in this paper is based on the imputation of transition probabilities and simulated income. Unlike other techniques like the re-weighting approach (Estevao and Särndal, 2006), the microsimulation technique adopted here allows us to take into account the changes that take place in the very composition of the unemployed in the two countries.

We focus on the Spanish and Italian economies since both countries are members of the Eurozone and their labour markets have similar structural characteristics: a high degree of inflexibility in wage determination, rigidity in hiring and firing practices, very low achievement in terms of female labour-force participation (World Economic Forum, 2010) and a strong duality between fixed-term and open-ended contracts, more accentuated in Spain. The wide use of temporary contracts in hiring young workers to avoid the much higher dismissal costs of permanent contracts and the deep recession of the Spanish economy has led its unemployment rate to stand at twice that of the European average.

Otherwise, both countries have employment protection systems corresponding to the Mediterranean model (Sapir, 2005); however, the Spanish unemployment benefit system is more generous than the Italian one, according to OECD data. In fact, the net replacement rate during the first year of unemployment in 2007 was 69% in Spain compared to 37% in Italy. Thus, their ability to palliate the socioeconomic consequences of the crisis may differ too, as is underlined in the empirical sections of this paper.

The remainder of the paper is organised as follows: Section 2 addresses the characteristics of the Italian and Spanish labour markets. The methodologies used to microsimulate the effect of the crisis on income distribution and income poverty in Italy and Spain, together with results of their application, will be presented in Sections 3 and 4. The final section will offer conclusions and highlight policy implications.

2. Italian and Spanish Unemployment and the Financial Crisis

Employment has differential characteristics according to gender, age, nationality, region of residence, qualifications, activity sector and the occupational status of

[1] We thank the discussant Hans-Dieter Gerner and the participants of the IZA/OECD Workshop on 'Economic Crisis, Rising Unemployment and Policy Responses: What Does It Mean for the Income Distribution?' held in Paris in February 2010, as well as two anonymous referees for their stimulating comments on a previous version of this paper. Usual disclaimers apply.

workers. All of these elements place people in different positions in the Spanish and Italian labour markets (see Table 1), affecting the likelihood of job loss, inequality, poverty as well as wellbeing levels in the two countries. Therefore, we shall use them in our microsimulation analysis.

[Table 1 - approximately HERE]

Table 1 – Unemployment rates in Italy and Spain in years 2007 and 2009 divided by population groups.

The impact of the subprime mortgage crisis on the Spanish labour market has been felt far more virulently than on the Italian labour market. In 2009 the unemployment rate reached 18.8% in Spain, 8.6% in Italy and 9.7% in the Eurozone. The female unemployment rates in 2009 were 18.5 % and 9.3% in Spain and Italy respectively, compared to 17.8% and 6.9% among men.

By age groups, the Spanish youth unemployment rate, 15 to 24-year-olds, reached 37.8% in 2009. This age range is the hardest hit by job losses which must be reflected in income inequality, income poverty and well-being levels, given the structure of the Spanish unemployment protection system. Italy shows a behaviour closer to that of the Eurozone, although its unemployment rate for those between 15 and 24 years is 25.4%. This is also the age range most affected by job losses in Italy.

Finally, it should be highlighted that the unemployment rate rose more sharply among those with a higher educational level, although job destruction is greater among those with less schooling than secondary education, except in Italy. Spanish job destruction is lower among university graduates. However, the Italian labour market penalises university graduates in the same way as it does those with substandard qualifications.

In short, the differential characteristic of Spanish labour market before the current economic crisis was its higher level of employment destruction. In actual fact, this is a structural feature of the Spanish economy: in every recession since the 1970s Spain has doubled the average European unemployment rate. The root of this problem is the combination of wage rigidity and duality – permanent contracts versus fixed-term contracts.

3 – Microsimulation methodologies to estimate the impact of the crisis on income distribution

EU-SILC data provide detailed individual and household socioeconomic outlines that must be taken into account when analysing the broad impact of the financial crisis. However, EU-SILC data are released with a delay period that does not allow for the prompt assessment of the impact of the crisis. For this reason we had to turn to microsimulation techniques.

An important econometric tool for microsimulation modelling is provided by the calibration approach. Within this framework, researchers may use auxiliary information on the changes that occur in the population to reweight their data.[2] The new weights minimise distances compared to the starting weights, so, in our case, the sample distribution is adjusted to the unemployment rates underlying the new scenario, preserving the sample distribution with regard to other sociodemographic variables.

[2] The basic theory for calibration is provided by Deville & Särndal (1992) and Creedy (2003). A complete review of the new techniques of the reweighting approach may be found in Estevao and Särndal (2006). An application of this simulation technique may be found in Immervoll et al. (2006).

However, not only has the crisis caused an increase in unemployment in the two countries analysed, but it has also entailed major changes in its composition. In order to take into account the changes that have taken place in the probability of unemployment being experienced in the two countries, we adopted another microsimulation technique based on the imputation of transition probabilities and simulated income. The simulation and imputation procedure that we propose here requires these steps to be followed:

1. Estimation of the transition probabilities from 2008 to 2009 by using the Labour Force Survey data and multivariate analyses. For this purpose, the variable may be defines as

$$u_i = \begin{cases} 1 \text{ if individual } i \text{ is unemployed in 2009 and was employed in 2008 } i = 1,...,n \\ 0 \text{ otherwise} \end{cases}$$

The probability of becoming unemployed in year 2009, having been employed before is calculated by the following probit model

$$prob(u_i = 1) = \Phi(\mathbf{X}_{i,LFS}\boldsymbol{\beta}) \qquad (1)$$

where $\mathbf{X}_{LFS}$ is the vector of variables contained in the Labour Force Survey that affect this probability and $\boldsymbol{\beta}$ is the vector of coefficients of the probit model. The variables included in the models estimated in this step are harmonised to those available in the EU-SILC data set available for the two countries.

2. Imputation of the estimated coefficients to the EU SILC data[3] $\mathbf{X}_{SILC}$ for 2007 in order to reproduce the 2009 scenario using the following expression:

$$prob\ \hat{u}_i = \Phi(\mathbf{X}_{i,LFS}\hat{\boldsymbol{\beta}}) \qquad (2)$$

where $prob\ \hat{u}_i$ defines the EU SILC individual probability to become unemployed in the 2009 scenario.

3. Definition of the threshold to simulate the change in status from employment to unemployment by using EU SILC data. Using the 2009 LFS data, we computed the percentage α of individuals that became unemployed having been previously employed. Therefore $1-\alpha$ is the percentage of individuals who have not experienced this transition. The latter percentage will be used to find the threshold for those who move from employment to unemployment in the EU SILC data. To summarise our procedure let us consider Chart 1: the first column contains the values of $prob\ \hat{u}_i$ and the second and third, the frequencies and the sample cumulative density functions respectively.

Chart 1- Threshold Estimation

$prob\ \hat{u}_i$	Frequency (f_i)	Cumulative Density Function (F_i)
$prob\ \hat{u}_1$	f_1	F_1
⋮	⋮	⋮
$prob\ \hat{u}_n$	f_n	F_n

[3] Please note that the vectors x_{LFS} and x_{SILC} contain exactly the same set of variables. For this purpose we had to recode some variables for the sake of conformity.

We focus on the third column to find the value for which $F_i = 1 - \alpha$. The value of $prob\,\hat{u}_i$ associated with F_i provides the threshold; p is the cumulative density function of moving from employment to unemployment. Using p we may thus define the dummy variable:

$$simU^*_{i,SILC} = \begin{cases} 1 \text{ if } i \text{ is employed and } prob\,\hat{u}_i > p \\ 0 \text{ otherwise} \end{cases} \qquad (3)$$

The procedure described above was used to simulate the following employment conditions in 2009: unemployed in 2009 and previously employed; unemployed in 2009 and previously inactive; employed in 2009 and previously unemployed; inactive but searching for a job or available to accept a job in 2009 and on the wage supplementation fund in 2009 (the latter applies only to Italy).

4. Simulated equivalised household incomes (nhy) are reconstructed to take into account the loss in income and/or the gain connected to household members' simulated employment conditions, as in equation (4):

$$nhy_{i_{SILC}} = [hy_{i_{SILC}} - w_{i_{SILC}} + \hat{b}_{i_{SILC}} \mid (simU^*_{iSILC} = 1 \text{ and } U_{iSILC} = 0)] +$$
$$[hy_{iSILC} \mid (simU^*_{iSILC} = 0 \text{ and } E_{iSILC} = 1) \text{ or } (simU^*_{iSILC}=0 \text{ and } E_{iSILC}=0 \text{ and } U_{iSILC}=1)] +$$
$$[hy_{i_{SILC}} - w_{i_{SILC}} + 0.80 w_{i_{SILC}} \mid (simU^*_{iSILC} = 0 \text{ and } U_{iSILC} = 0 \text{ and } E_{iSILC}=0 \text{ and } simWS_{iSILC}=1)] +$$
$$[hy_{i_{SILC}} - b_{i_{SILC}} + \hat{w}_{i_{SILC}} \mid (simU^*_{iSILC} = 0 \text{ and } U_{iSILC} = 1 \text{ and } simE_{iSILC}=1)] +$$
$$[hy_{i_{SILC}} - w_{i_{SILC}} \mid (simU^*_{iSILC} = 0 \text{ and } U_{iSILC} = 0 \text{ and } simIN_{iSILC}=1)] \qquad (4)$$

with nhy = new simulated net household income
hy_{iSILC} = net household income as measured in EU SILC
$\hat{b}_{iSILC}$ = net estimated unemployment benefit
$\hat{w}_{iSILC}$ = net estimated wage
w_{iSILC} = net individual earnings
U_{iSILC} = dummy taking the value of 1 if the individual is currently unemployed
$simU^*_{iSILC}$ = dummy variable taking the value of 1 if the individual is defined as unemployed after simulation
E_{iSILC} = dummy taking the value of 1 if the individual is currently employed
$simE_{iSILC}$ = 1 dummy variable taking the value of 1 if the individual is defined as becoming employed, being unemployed before simulation
$simWS_{iSILC}$ = dummy taking the value of 1 if the individual is defined after simulation as being under wage supplementation fund in Italy
$simIN_{iSILC}$ = dummy taking the value of 1 if the individual is defined as being inactive after simulation.

The net unemployment benefit is estimated by using equation (5), in which we correct for the non-random selection of the unemployed by adopting Heckman's two-step model (1979).

$$b_{iSILC} = Z_{iSILC}\beta_{iSILC} + \varepsilon_{i_{SILC}} \qquad \varepsilon_{i_f} \sim \mathrm{N}\left(0, \sigma_\varepsilon^2\right) \tag{5}$$

b_{SILCi}, net unemployment benefit, may be observed only among individuals who are unemployed, i.e. for those individuals whose $U_{iSILC} = 1$. The estimate of the net unemployment benefit must therefore be corrected for by their selection in unemployment.

$$E\left[b_{iSILC} \mid Z_{iSILC}, u_{iSILC} = 1\right] = Z_{iSILC}\beta_{SILC} + \theta\lambda_{i_{SILC}} \tag{6}$$

in which λ_{iSILC} is included in the regression to correct for the non-random selection of the unemployed in the net unemployment benefit equation. Z_{iSILC}= covariates including age, marital status, education level, status of illness, presence and age of children.

Net wages for those who were unemployed and, according to simulation, appear to be employed are estimated using Heckman's selection model (equations 7 and 8) for women in order to account for their selection into employment, and by OLS for employed men.

$$w_{iSILC} = Z_{iSILC}\mu_{iSILC} + \varepsilon_{i_{SILC}} \qquad \varepsilon_{i_f} \sim \mathrm{N}\left(0, \sigma_\varepsilon^2\right) \tag{7}$$

$$E\left[w_{iiSILC} \mid Z_{iSILC}, u_{iSILC} = 1\right] = Z_{iSILC}\mu_{SILC} + \theta\lambda_{i_{SILC}} \tag{8}$$

λ_{iSILC} = Heckman's term to correct for non-random selection

Z_{iSILC}= covariates including age, marital status, education level, status of illness, presence and age of children, employment sector.

5. Descriptive statistics on income distribution and poverty are produced to evaluate the costs of joblessness, also taking into account different groups of the population as regards age, type of household and employment contract.

4. Results on the estimation of 2009 employment status

In order to simulate the effect of the increased unemployment on income distribution and poverty rates, as shown in the previous section, we imputed the probability of being unemployed, having been previously employed to each record of IT SILC07 and ES SILC 07, estimated on the basis of the 2009 third quarter results of the Italian and Spanish labour force survey data (Table 2). To account for gender differences in the likelihood of becoming unemployed, the models are estimated separately for women and men. Focusing on the results for Italy, unlike men, women aged 35 to 39 were more likely to become unemployed in 2009, while this likelihood significantly decreases for both groups among workers over 55. Higher education reduces the likelihood of becoming unemployed, and the probability of becoming unemployed increases by 2% for women and 1.2% for men if they live in the South of Italy. Turning to the impact of the type of sector, marginal effects show a 3% increase in the probability of becoming unemployed for males employed in the construction sector and 2% if employed in the estate agency sector. The likelihood of becoming unemployed is higher among blue-collar and unskilled work positions for both men and women. Unlike men, women in scientific and highly-skilled positions show an increase of 2% the likelihood of their becoming unemployed.

Focusing on the results for Spain, marginal effects show that the probability of becoming unemployed is higher among women aged 20 to 24 (3.7%) and 25 to 29 (3.1%). Among men the group of those aged 25 to 29 is more likely to be unemployed, with a marginal effect of 2.1%. In Spain, unlike Italy, the difference in the likelihood of being unemployed in the case of men and women aged 35 to 39 is small (the marginal effects are 1.5 % for women and 1.4 % for men). This result shows that it is easier and cheaper to lay off young people who have recently entered the labour market through temporary contracts due to the remarkable duality of the labour market in Spain. Like in Italy, the probability of being unemployed in 2009 decreased for both groups of workers over 55. Also in Spain, higher education reduces the likelihood of becoming unemployed for men and women. According to the type of sector, the marginal effect shows a 20% increase in the probability of becoming unemployed for males employed in the construction sector, compared with the 3% in Italy, and an increase of 15% if employed in the financial sector.[4] This difference may be explained by the excessive importance the construction industry had with regard to employment and by the housing bubble in the Spanish economy. For men, the probability of becoming unemployed is higher in unskilled working positions. For women, the probability of becoming unemployed is higher in craft, skilled, blue-collar and unskilled working positions.

We would like to highlight the high probability of becoming unemployed in scientific, highly-skilled and technical positions in Spain compared to Italy. This outcome could be due to the fact that the labour force survey includes architects and engineers in these groups, whose activities are closely related to the construction sector – heavily affected by the crisis – particularly in Spain.

If we compute the Hausman-White (White, 1994) test, we find statistically different effects of the crisis on men and women in the two countries.

[Table 2 - approximately HERE]

Table 2 – Probability of becoming unemployed in 2009, 3rd quarter

Taking into account the higher probability of receiving benefits from the Italian wage supplementation fund during the current crisis, the same set of microdata is used in order to estimate the probability of being employed but part of the wage supplementation scheme.[5] This is a condition not considered as unemployment in the Italian Labour Force Survey but which is found to reduce household income and lead to uncertainty on future labour market conditions. The probability of receiving benefits from the wage supplementation fund (Table A1) does not increase in the South, and it is significantly higher among men in various employment sectors. Indeed, being employed in manufacturing increases the probability of being under the wage supplementation fund by 7% for men and 3% for women.

Italy is characterised by a higher incidence of inactivity among the working-age population (especially women). In order to account for the loss in income connected to being inactive but still searching for a job or available to accept a job, we estimated the probability of being in this condition by gender by using ISTAT LFS 2009 data, and imputed this probability to IT SILC 2007 microdata (Table A2). Apart from very young and older women, the probability of being inactive increased in 2009, decreasing among more educated people (this probability decreases by 4% for women having completed tertiary education and for 2.4% of men with tertiary education), and significantly

[4] The estate agency sector was included in the financial sector in the Spanish Labour Survey.
[5] This can be done for the Italian database in keeping with the increasing numbers accessing the wage supplementation funds among Italian workers.

increases for those living in the South of Italy (by 8% for men and 10% for women). The probability of being inactive is also higher (up by 2%) for mothers of children aged between six and 14 as there is a low synchronization between schooling hours and normal hours of work.

In the Spanish data, the probability of being inactive decreased among more educated people: 1.7% among women who had completed tertiary education, and 1.2% of men. These probabilities are smaller than in Italy. The probability of being inactive increased among men and women aged between 55 and 59. The Hausman-White test suggests that the response of the two countries to the crisis with respect to the likelihood of becoming inactive significantly differs among both men and women.

In order to account for the increase in unemployment rates on entering or re-entering the labour market, we estimated the probability of becoming unemployed having been inactive (Table A3). In the Italian case, this probability is higher for individuals under 34 (among men) and 39 (among women) with an increase of 4% for men and women aged 20 to 24. Having a child in primary school increases the likelihood of becoming unemployed if previously inactive by 0.8% in the case of mothers, while living in the South of Italy increases the probability of being unemployed for the previously inactive by 1% for men and 0.8% for women. In the Spanish case, this probability is higher for women under 19. Young women with a child aged between three and five or in primary school increased the probability of becoming unemployed by 0.6% and 0.3% respectively, if previously inactive in 2009. These levels stand at 0.1% for men. The p-value associated with the Hausman-White test allows us to reject the null hypothesis that the coefficients of the models for Italy are equal to the coefficients of the models for Spain.

We then estimated the probability of becoming employed in the year 2009 having been unemployed one year before (Table A4). The probability of entering employment is significantly higher for higher educated individuals in Spain than in Italy, where only women in tertiary education experience an increase in the probability of entering a job after a spell of unemployment. The youngest and eldest age group show a reduction in the likelihood of experiencing a shift towards employment in Italy. While in Italy, being married does not increase the probability of becoming employed, in Spain this positively affects the move towards employment. The result of the Hausman-White test suggests different response models for Italy and Spain.

For those simulated to being employed after having been unemployed, we then imputed a labour income as estimated by the Heckman two-step selection model for women and OLS for men. The wage supplementation fund subsidy was imputed as being up of 80% of former employment income, according to a threshold set by the Italian National Social Security Institute for those who simulated as being under the scheme.

To those who were not unemployed according to the IT SILC and ES SILC 2007 surveys but – according to the simulation – would have been unemployed in the year 2009, we then imputed an unemployment benefit obtained by the estimation of a two-step Heckman model on IT SILC and ES SILC 2007 data (Table A5).[6] Unemployment benefits tend to increase with the age of the unemployed (though with a 10% level of significance) in line with a probable higher level of wages connected to seniority in employment. Unemployment benefits, according to the multivariate analysis, tend to be lower for men, which may be connected to the inclusion in the second step of the model

[6] We included perceived health status and family composition in terms of presence and age of children in the first step of the estimation, given the expected effect of these variables on unemployment probability being higher than on the level of unemployment benefit as an indentifying assumption.

of women being more likely covered by unemployment benefits. However, it should be noted that women have a higher likelihood of losing their jobs and becoming inactive, and therefore being left without any unemployment benefit. In the Spanish case, unemployment benefit tends to increase with the age of the unemployed and level of education. For men unemployment benefits increase significantly compared to women, while the reverse is true in Italy. This result is in keeping with the existing gender gap in wages to be found in the Spanish labour market (see for instance www.oecd.org/els/social/family/database). Wage equations estimated to impute labour income to those who entered employment according to the simulation show the positive effect of higher education on hourly wages, lower wages in the South of Italy both for men and for women and the positive effect of selection into employment on potential wages (Table A6).

5 – The impact of the crisis on income distribution and poverty rates

Having obtained microsimulated data that account for the effect of joblessness on individual and family income, we then proceeded to analyse the effect of the crisis on income and poverty rates.[7]

At the national level, the first moment of Italian income distribution referred to the whole population shows a reduction in equivalised household income by 1.16% and by 3% in Spain (Table 3).

[Table 3 - approximately HERE]

Table 3 - Descriptive statistics on actual and simulated equivalised disposable household income in 2009.

The higher drop in Spanish household income is explained by a sharp increase in the unemployment rate that rose from 8.3% in 2007 to 18.1% in 2009. In addition, the functioning of the whole unemployment protection system results in some individuals receiving a smaller benefit than the inter-professional minimum wage, which implies a substantial reduction of their income. Going deeper into this result, it must be noticed that, according to our elaboration of the EAP Survey, the number of self-employed workers and private-sector employees diminished between 2007 and 2009, respectively by 11 and 10%. Moreover, those unemployed who were formerly self-employed are not covered by the unemployment protection system. Furthermore, the application of the minimum and maximum limits of unemployment benefit reduces individuals' income. For instance, the maximum gross unemployment benefit that an individual with two or more children may receive is 1,383.99 euro per month. For a single individual this amount is 1,076.44 euro per month. At this point we might note that a government bill approved on May 13, 2010 will also include the self-employed into the unemployment protection system.

Table 4 shows the Gini indices for equivalised household income and for microsimulated income for Italy and Spain. It may be observed that equivalised household income inequality is similar in the two countries (0.31), and that also the effect of the crisis has been similar (the Gini index of simulated income distribution is 0.32 for both), despite the fact that income reduction was higher in Spain. In such a way this result shows that the Spanish unemployment protection system is more generous than the Italian one as may be seen from the net replacement rate (OECD, 2009a, Table

[7] t-tests performed on the descriptive statistics presented in this Section confirm the statistic significance of the obtained differences.

1.6, p. 76). As regards Italy, our results show greater inequality in income distribution in the South of Italy than in the North and Centre (Gini respectively equal to 0.33, 0.30 and 0.31).

[Table 4 - approximately HERE]

Table 4 - Gini Index of actual and simulated equivalised household income

We then estimated poverty rates by using simulated equivalised household income as compared to the actual one (Table 5).

Poverty rates computed by using simulated gross household equivalised income increase by 1% on the whole both in Italy and in Spain. For Spain, this result is in line with the data of the Spanish National Statistic Institute, which put the headcount rate at 19.5% according to EU SICL-2009 (www.ine.es/prensa/prensa.htm).

Turning to differences in poverty distribution by area in Italy, it may be noted that the effect is higher in the South of Italy where – taking simulated income into account – poverty rates increase by 3% compared to the level obtained by using the actual income. In our opinion the latter may occur since there is a higher probability that the unemployed in the South were formerly inactive, young or in jobs not covered by unemployment benefits.

[Table 5 - approximately HERE]

Table 5 - Poverty rates in Italy and Spain (simulated and actual equivalised income)

Distinguishing by the presence of children aged under 15, we find that poverty rates are significantly higher in households with children aged under 15 (Table 6) on the whole in Italy, apart from the Centre of Italy (where the change in poverty rates is similar for households with or without children aged under 15). In the other areas, poverty rates increase by 1% in households with children aged under 15. In Spain, poverty rates are higher in households with children aged under 15. This occurs both with actual and simulated equivalised income, though the difference between actual and imputed poverty rates is higher among households without children aged under 15. Moreover, the difference in poverty rates between the two types of households is wider in the Italian sample.

[Table 6 - approximately HERE]

Table 6 - Poverty rates in Italian and Spanish, households without and with children aged under 15 (simulated and actual equivalised income)

[Table 7 - approximately HERE]

Table 7 - Poverty rates in Italian and Spanish, lone-parent households (simulated and actual equivalised income)

Table 7 shows very high levels of income poverty among lone-parent households, this being higher in 2009 than in 2007, and higher in Spain than in Italy as a whole. However, in the South of Italy, our results suggest that during the crisis, about 47% of the households analysed were below the poverty line.

If we analyse households where both partners are present, and distinguish between single and double-earner households (table 8), we find much lower levels of income poverty among the latter. This is especially true in Italy, where only 6% of double-

earner households were classed as being in poverty in 2007, and 7% according to our simulation for 2009. The poverty rate for one-earner households, on the other hand, is much higher, and increasing by 1% point in both countries according to the simulated data. Again, Italy shows a highly heterogeneous situation, with the South lagging behind and displaying over 40% of poverty.

[Table 8 - approximately HERE]

Table 8 - Poverty rates in Italy and Spain: double and single-earner households (simulated and actual equivalised income)

Given the different weight in the two countries of temporary employment, attention was paid to the effect of the crisis in terms of income poverty according to the current types of contract. As Table 9 and 10 show the difference in poverty rates are higher in Spain where poverty rates increase by 7% among temporary workers and by 6% among permanent workers, though the difference amongst types of workers is negligible. However, it should be noted that temporary workers are more exposed to the risk of becoming unemployed during the crisis with an ensuing substantial loss in income.

[Table 9 - approximately HERE]

Table 9- Poverty rates in Italy and Spain, temporary workers (simulated and actual equivalised income)

[Table 10 - approximately HERE]

Table 10 - Poverty rates in Italy and Spain, permanent workers (simulated and actual equivalised income)

Young workers are characterised by higher poverty rates especially in the South of Italy, where poverty rates amount to 42% of young adults if one uses simulated data on income, compared to 32% among individuals over 24. However, despite the increase in youth unemployment, this is not reflected in a tangible increase in poverty rates with regard to individuals aged over 24 (Tables 11-12), taking simulated income into account. This effect may be generated by the use of equivalent family income.

[Table 11 - approximately HERE]

Table 11 - Poverty rates in Italy and Spain, Young adults (simulated and actual equivalised income)

[Table 12 - approximately HERE]

Table 12 - Poverty rates in Italy and Spain, Aged over 24 (simulated and actual equivalised income)

Conclusions

As a result of the current crisis, the Italian and the Spanish labour markets have experienced an increase in unemployment rates. Although the impact of the recession has been more severe in Spain, the Italian data must be complemented with data on the beneficiaries of the Wage Supplementation Fund (who are not computed among the unemployed) in order to assess the effect of the crisis on the labour market more

completely. Furthermore, a broad section of the population in Italy (particularly in the South of Italy and particularly amongst women) is inactive and has been discouraged from undertaking job-hunting. This calls for statistical and econometric techniques able to account for their presence (Brandolini, Cipollone and Viviano, 2006; Jones and Riddel, 2006) and for a specific target in employment and social policies in order to avoid their exclusion from the labour force.

Our evidence based on microsimulation indicates a reduction in equivalized household income, more accentuated in Spain and in the South of Italy, a worsening in inequality, and an increase in poverty associated with the increase in unemployment, inactivity and wage supplementation fund workers in 2009. The impact on poverty rates is higher in the South of Italy, as shown by imputed unemployment probability microsimulation.

Nevertheless, it should be highlighted that the relatively low decrease in income experienced in Italy may be connected to the effect of the provision of the wage supplementation fund; however , the duration of this provision is due to expire, in the absence of the reintegration of workers' positions, leading to a loss of income and an increase in poverty if other safety nets are not established.

To understand these findings, one must bear in mind several explanatory factors. Firstly, gender, age, nationality, region of residence, job quality, qualification, activity sector and occupational status place the person in different positions in the Spanish and Italian labour markets and, therefore, have a bearing on the probability of job loss in an economic crisis. Secondly, the differential characteristic of the Spanish labour market is its strong tendency to destroy employment in crisis periods. Thirdly, the unemployment insurance system in Italy is characterised by inequalities derived from differences in eligibility, and in the different duration and degree of coverage according to the type of contract. On the other hand, the coverage of unemployment benefit in Spain varies depending on the contribution made to the system – work days accumulated – and on the prior employment status of the unemployed. Spanish subsidies are linked to income being no higher than 75% of the monthly minimum wage and provide no more that 80% of PIMEI (Public Indicator of Multiple Effect Income). Finally, Spanish unemployment protection is more generous than the Italian one, according to the net replacement rate during the first year of unemployment.

These results call for a reform of Italian and Spanish unemployment protection systems since they are both characterised by rather low coverage and deliver neither efficiency nor equity. Neither generate relatively high employment rates, nor do they keep the risk of poverty relatively low compared to other European systems. This is proved by the extension of the Wage Supplementation Fund access in Italy and the introduction of the Program for Temporary Unemployment Protection and Integration in Spain, which were taken as reaction to the crisis.

The choice of the exact measures to adopt will require further analysis and simulations in order to identify those most suited to the characteristics of the two countries, and this will be the object of future research.

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Appendix

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TABLES

Table 1 – Unemployment rates in Italy and Spain in years 2007 and 2009 by different groups of the population.

	2007			2009		
	EURO ZONE	ITALY	SPAIN	EURO ZONE	ITALY	SPAIN
TOTAL	7.4	6.1	8.3	9.5	7.9	18.1
BREAKDOWN BY SEX						
MALES	6.6	4.9	6.4	9.3	6.9	17.8
FEMALES	8.5	7.9	10.9	9.7	9.3	18.5
BREAKDOWN BY AGE						
15 TO 24 YEARS	15.0	20.3	18.2	19.7	25.4	37.8
25 TO 49 YEARS	6.7	5.8	7.4	8.9	7.4	17.1
50 TO 64 YEARS	6.1	2.5	6.1	6.8	3.7	18.3
BREAKDOWN BY HIGHEST LEVEL OF EDUCATION						
PRE-PRIMARY, PRIMARY AND LOWER SECONDARY	10.5	7.3	10.5	15.1	9.6	24.7
UPPER SECONDARY AND POST-SECONDARY NON-TERTIARY	7	5.6	6.1	8.5	7.3	17.1
TERTIARY EDUCATION	4.4	4.4	5.3	5.4	5.6	9.8

Source: Eurostat -Labour Force Survey-

Table 2 – Probability of becoming unemployed in 2009 III quarter

	ITALY				SPAIN			
Variables	Men		Women		Men		Women	
	Coeff.	Marg. at means	Coeff.	Marg. at means	Coeff.	Marg. at means	Coeff.	Marg. at means
15-19	-0.875**	-0.019	-0.641**	-0.008	-0.0221	-0.0030	-0.0457	-0.0063
	(6.38)		(4.59)		(0.60)		(1.27)	
20-24	0.012	0.001	0.035	0.001	0.0992**	0.0143	0.225**	0.037
	(0.17)		(0.42)		(2.98)		(7.32)	
25-29	0.049	0.002	0.062	0.002	0.141**	0.0209	0.192**	0.031
	(0.78)		(0.88)		(4.55)		(6.75)	
30-34	0.013	0.001	0.069	0.002	0.0642*	0.0091	0.148**	0.023
	(0.21)		(1.08)		(2.25)		(5.50)	
35-39	0.079	0.004	0.185**	0.005	0.104**	0.015	0.0937**	0.014
	(1.51)		(3.31)		(3.86)		(3.58)	
55-59	-0.149*	-0.006	-0.443**	-0.007	-0.121**	-0.015	-0.228**	-0.0284
	(2.32)		(4.41)		(3.50)		(6.91)	
60-64	-0.458**	-0.014	-0.695**	-0.009	-0.653**	-0.060	-0.608**	-0.0601
	(5.33)		(5.54)		(12.64)		(14.66)	
Tertiary	-0.220**	-0.008	-0.163*	-0.003	-0.354**	-0.0403	-0.403**	-0.04851
	(2.72)		(2.03)		(12.83)		(16.83)	
High school	-0.113**	-0.005	-0.175**	-0.004	-0.206**	-0.028	-0.120**	-0.0171
	(2.69)		(3.22)		(13.38)		(8.42)	
Agriculture	-0.039	-0.002	-0.232	-0.004	0.527**	0.1016	-0.157*	-0.020
	(0.42)		(1.95)		(6.20)		(2.28)	
Manufacturing	0.299**	0.016	0.232**	0.007	0.497**	0.0934	0.227**	0.0378
	(4.20)		(2.92)		(6.77)		(2.94)	
Construction	0.473**	0.031	0.203	0.006	0.888**	0.2032	0.247	0.042
	(6.35)		(1.06)		(12.40)		(1.90)	
Trade	0.265**	0.015	0.138	0.004	0.629**	0.1280	0.183**	0.030
	(3.37)		(1.76)		(8.26)		(3.52)	
Hotel [1]	0.262*	0.015	0.202*	0.006				
	(2.34)		(2.33)					
Transport	0.291**	0.017	-0.072	-0.002	0.590**	0.1185	0.279**	0.048
	(2.99)		(0.49)		(6.64)		(2.91)	
Financial	0.292*	0.017	0.136	0.004	0.699**	0.1493	0.144**	0.023
	(2.22)		(0.85)		(7.90)		(2.36)	
Real estate[1]	0.335**	0.020	0.052	0.001				
	(3.81)		(0.61)					
Other sectors	0.223*	0.012	-0.000	0.000	0.228*	0.036	0.0301	0.0044
	(2.26)		(0.00)		(2.24)		(0.49)	
Scientific and highly skilled positions	0.044	0.002	0.553**	0.023	1.553**	0.4611	1.529**	0.459
	(0.38)		(4.09)		(17.85)		(24.30)	
Technical positions	0.041	0.002	0.518**	0.019	1.491**	0.4347	1.526**	0.456
	(0.47)		(5.23)		(18.68)		(24.71)	
White-collar	0.223*	0.012	0.642**	0.028	1.411**	0.4047	1.521**	0.453

	(2.27)		(6.11)		(14.36)		(24.58)	
Skilled in Trade and Services	0.222*	0.012	0.771**	0.036	1.229**	0.3310	1.397**	0.397
	(2.49)		(8.10)		(14.91)		(27.87)	
Craft. skilled blue-collar. agric.	0.317**	0.017	0.757**	0.040	1.361**	0.3857	1.680**	0.521
	(3.97)		(6.37)		(10.46)		(9.60)	
Machine operators and semiskilled blue collar	0.175	0.009	0.699**	0.036	1.522**	0.4272	1.387**	0.401
	(1.87)		(5.49)		(22.01)		(17.27)	
Unskilled	0.567**	0.042	0.899**	0.052	1.545**	0.4472	1.498**	0.436
	(6.57)		(9.44)		(22.64)		(29.83)	
Army[1]	-0.520*	-0.014						
	(2.30)							
South [2]	0.241**	0.012	0.100*	0.002				
	(6.92)		(2.40)					
Married	-0.223**	-0.010	-0.298**	-0.007	-0.323**	-0.0451	-0.131**	-0.019
	(5.35)		(6.70)		(15.48)		(6.98)	
Self-employed collaborator[1]	-0.260**	-0.010	-0.083	-0.002				
	(5.13)		(1.21)					
Constant	-2.210**		-2.482**		-1.384**		-1.385**	
	(29.20)		(30.64)		(62.46)		(66.12)	
Observations	47359		49455		56,313		57,568	

Robust z statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

[1] Not available for EAP Data
[2] Not suitable for Spanish Data

Source: Our elaborations on ISTAT Labour Force Survey and EAP Survey Data 2009

Table 3 - Descriptive statistics on actual and simulated equivalised disposable household income in 2009

Variables	Mean	Std. Dev.
Italy		
simulated equivalized household income (whole sample)	17271.97	12117,65
	-1.16%	
simulated equivalized household income without wage supplementation fund(whole sample)	17188.96	12134.65
	-1.63%	
actual equivalized household income (whole sample)	17472.92	12080.54
Spain		
simulated equivalized household income (whole sample)	13232.18	8568.62
	-3.15%	
actual equivalized household income (whole sample)	13663.18	8497.09

Source: Our elaborations on IT SILC07 and ES SILC 2007 and simulated microdata

Table 4 - Gini Index actual and simulated equivalised household Income

	Obs.	Simulated	Simulated-actual	Actual
Italy	44329	0.32	0.01	0.31
By area:				
North	19993	0.30	0.01	0.29
Centre	10585	0.31	0.00	0.31
South	13751	0.33	0.01	0.32
Spain	34586	0.32	0.01	0.31

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 5 - Poverty rates in Italy and Spain (simulated and actual equivalised income)

		simulated eq. income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	45139	0.20	0.4	1%	0.19	0.39
By area:						
North	20324	0.12	0.32	1%	0.11	0.31
Centre	10727	0.14	0.35	1%	0.13	0.34
South	14088	0.35	0.48	3%	0.33	0.47
Spain	34635	0.20	0.40	1%	0.19	0.39

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 6 - Poverty rates in Italy and Spain, households without and with children aged less than 15 (simulated and actual equivalised income)

Households without children aged 0-15						
		simulated eq. income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	35103	0.19	0.39	1%	0.18	0.38
By area:						
North	15973	0.11	0.32	0%	0.11	0.31
Centre	8468	0.13	0.33	1%	0.12	0.33
South	10662	0.32	0.47	1%	0.31	0.46
Spain	29618	0.20	0.40	1%	0.19	0.39
Households with children aged 0-15						
		simulated eq. income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	10036	0.25	0.44	2%	0.23	0.42
By area:						
North	4351	0.13	0.33	2%	0.11	0.31
Centre	2259	0.19	0.39	1%	0.18	0.38
South	3426	0.43	0.49	3%	0.4	0.49
Spain	5017	0.22	0.42	0%	0.22	0.42

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 7 - Poverty rates in Italy and Spain, lone parent households (simulated and actual equivalised income)

Lone parenthoods						
		simulated eq. income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	900	0.34	0.47	5%	0.29	0.46
By area:						
North	415	0.29	0.46	5%	0.24	0.43
Centre	228	0.26	0.44	3%	0.23	0.42
South	257	0.47	0.5	5%	0.42	0.5
Spain	720	0.37	0.48	5%	0.32	0.47

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 8 - Poverty rates in Italy and Spain, double and single earner households (simulated and actual equivalised income)

Double Earner Households						
		simulated eq. income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	7636	0.07	0.25	1%	0.06	0.23
By area:						
North	4167	0.04	0.19	1%	0.03	0.16
Centre	1873	0.05	0.21	1%	0.04	0.2
South	1596	0.18	0.38	3%	0.15	0.35
Spain	5445	0.12	0.33	0%	0.12	0.33
One Earner Households						
		simulated eq. income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	7389	0.28	0.45	1%	0.27	0.44
By area:						
North	2879	0.14	0.35	1%	0.13	0.33
Centre	1545	0.19	0.39	2%	0.17	0.38
South	2965	0.43	0.5	2%	0.41	0.49
Spain	5431	0.29	0.45	1%	0.28	0.45

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 9- Poverty rates in Italy and Spain, temporary workers (simulated and actual equivalised income)

Temporary Workers						
		simulated eq. Income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	4657	0..29	0.45	2%	0.27	0.44
By area:						
North	1736	0.15	0.36	1%	0.14	0.35
Centre	993	0.21	0.41	2%	0.19	0.40
South	1928	0.43	0.50	4%	0.39	0.49
Spain	8299	0.25	0.43	7%	0.18	0.39

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 10 - Poverty rates in Italy and Spain, permanent workers (simulated and actual equivalised income)

Permanent workers						
		simulated eq. Income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	23416	0.13	0.34	2%	0.11	0.31
By area:						
North	12131	0.09	0.28	2%	0.07	0.26
Centre	5810	0.09	0.29	1%	0.08	0.28
South	5475	0.25	0.43	5%	0.20	0.40
Spain	15337	0.12	0.33	6%	0.06	0.25

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 11 - Poverty rates in Italy and Spain, Youth (simulated and actual equivalised income)

Youth (aged 15-24)						
		simulated eq. Income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	4890	0.26	0.44	1%	0.25	0.43
By area:						
North	1847	0.12	0.33	0%	0.12	0.32
Centre	1049	0.16	0.37	0%	0.16	0.36
South	1994	0.42	0.49	1%	0.41	0.49
Spain	4456	0.24	0.42	5%	0.19	0.40

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

Table 12 - Poverty rates in Italy and Spain, Aged more than 24 (simulated and actual equivalised income)

	Aged > 24					
		simulated eq. Income			actual eq.income	
	Obs.	Mean	St.Dev.	Diff.	Mean	Std.Dev.
Italy	40249	0.20	0.40	2%	0.18	0.39
By area:						
North	18477	0.12	0.32	2%	0.10	0.31
Centre	9678	0.14	0.34	1%	0.13	0.34
South	12094	0.34	0.47	2%	0.32	0.47
Spain	30179	0.20	0.40	6%	0.14	0.35

Source: Our elaborations on IT SILC07 and ES SILC07 and simulated microdata

APPENDIX

Table A1 – Probability of being in the wage supplementation funds scheme

	Men		Women	
	coeff	Marginal eff. at means	coeff	Marginal eff. at means
15-19	-0.605	-0.002		
	(1.59)			
20-24	-0.194	-0.001	-0.332	0.000
	(1.51)		(1.32)	
25-29	-0.351**	-0.001	-0.432**	0.000
	(3.23)		(2.82)	
30-34	0.003	0.000	-0.099	0.000
	(0.03)		(0.99)	
35-39	0.044	0.000	-0.229*	0.000
	(0.61)		(2.06)	
55-59	-0.055	0.000	-0.198	0.000
	(0.65)		(1.62)	
60-64	-0.450**	-0.001	-1.052**	-0.001
	(3.03)		(3.07)	
Tertiary	0.042	0.000	-0.024	0.000
	(0.29)		(0.13)	
High school	0.042	0.000	0.090	0.000
	(0.76)		(1.01)	
Energy Industry and Extraction	0.638	0.008	0.410	0.001
	(1.88)		(1.22)	
Manufacturing	1.939**	0.069	1.554**	0.027
	(7.35)		(6.55)	
Construction	1.182**	0.027		
	(4.27)			
Trade	1.420**	0.046	1.025**	0.008
	(5.25)		(3.68)	
Hotel	0.149	0.001	0.274	0.001
	(0.39)		(0.78)	
Transport	0.924**	0.016	1.060**	0.011
	(3.22)		(3.80)	
Real estate	1.094**	0.026	0.819**	0.005
	(3.82)		(3.13)	
Other sectors	0.625	0.008	0.329	0.001
	(1.77)		(0.96)	
Scientific and highly skilled positions	0.093	0.001	0.213	0.000
	(0.30)		(0.49)	
Technician positions	0.452	0.004	0.239	0.001
	(1.62)		(0.70)	
White collar	0.536	0.005	0.266	0.001
	(1.81)		(0.76)	
Skilled in Trade and Services	0.427	0.004	0.098	0.000

	(1.42)		(0.25)	
Craft, skilled blue-collar	0.565*	0.005	0.569	0.002
	(2.00)		(1.60)	
Machine operators and semiskilled	0.807**	0.011	0.723*	0.004
	(2.84)		(2.02)	
Unskilled	0.514	0.005	0.359	0.001
	(1.70)		(0.99)	
South	0.018	0.000	-0.009	0.000
	(0.31)		(0.11)	
Married	0.048	0.000	0.047	0.000
	(0.76)		(0.61)	
Constant	-4.129**		-3.658**	
	(11.61)		(17.70)	
Observations	35514		39447	

Robust z statistics in parentheses

* significant at 5%; ** significant at 1%

Source: Our elaborations on ISTAT Labour Force Survey Data 2009

Table A2 – Probability of being inactive but searching for a job or being available to Work in 2009

	ITALY				SPAIN			
Variables	Men		Women		Men		Women	
	Coeff .	Marg. eff. at means	Coeff .	Marg. eff. at means	Coeff.	Marg. eff. at means	Coeff.	Marg.eff. at means
15-19	0.190**	0.021	-0.149**	-0.020	0.148**	0.006	-0.223**	-0.011
	(4.23)		(3.26)		(3.06)		(4.80)	
20-24	0.602**	0.086	0.307**	0.054	0.0438	0.0016	-0.215**	-0.011
	(14.17)		(7.77)		(0.82)		(4.61)	
25-29	0.465**	0.060	0.335**	0.060	-0.0195	-0.001	-0.267**	-0.013
	(10.52)		(8.63)		(0.36)		(5.71)	
30-34	0.268**	0.030	0.234**	0.039	-0.0722	-0.002	-0.193**	-0.011
	(6.08)		(6.47)		(1.24)		(4.48)	
35-39	0.016	0.002	0.178**	0.029	-0.118*	-0.004	-0.136**	-0.08
	(0.34)		(5.04)		(2.08)		(3.57)	
55-59	-0.072	-0.006	-0.377**	-0.045	0.171**	0.007	0.0787*	0.005
	(1.48)		(8.25)		(3.69)		(2.26)	
60-64	-0.101	-0.009	-0.649**	-0.066	0.165**	0.006	-0.0213	-0.001
	(1.91)		(12.33)		(3.47)		(0.58)	
Tertiary	-0.312**	-0.024	-0.359**	-0.044	-0.453**	-0.012	-0.332**	-0.017
	(6.64)		(9.93)		(8.65)		(10.12)	
High school	-0.279**	-0.025	-0.222**	-0.032	-0.138**	-0.005	-0.129**	-0.008
	(9.89)		(8.83)		(5.19)		(6.17)	
South[1]	0.675**	0.077	0.598**	0.101				
	(27.04)		(27.83)					

At least one child 0-3	-0.039	-0.004	-0.054	-0.008	-0.0581	-0.002	-0.104**	-0.006
	(0.91)		(1.49)		(1.16)		(2.53)	
At least one child 3-5	0.010	0.001	-0.026	-0.004	-0.0259	-0.0009	-0.0469	-0.003
	(0.24)		(0.75)		(0.54)		(1.33)	
At least one child 6-14	-0.050	-0.005	0.139**	0.022	-0.0733	-0.002	0.0209	0.0013
	(1.61)		(5.45)		(1.81)		(0.72)	
Constant	-1.891**		-1.499**		-2.082**		-1.694**	
	(58.45)		(58.04)		(71.55)		(80.67)	
Observations	47359		49480		56,313		57,568	

Robust z statistics in parentheses

* significant at 5%; ** significant at 1%

[1] Not suitable for Spanish Data

Source: Our elaborations on ISTAT Labour Force Survey and EAP Survey Data 2009

Table A3 – Probability of becoming unemployed if inactive

	ITALY				SPAIN			
Variables	Men		Women		Men		Women	
	Coeff .	Marg. eff. at means	Coeff .	Marg. eff. at means	Coeff	Marginal eff. at means	Coeff.	Marginal eff. at means
15-19	0.298**	0.013	0.122	0.006	-0.141**	-0.0006	0.305**	0.008
	(4.05)		(1.79)		(2.93)		(6.82)	
20-24	0.667**	0.041	0.541**	0.039	-0.379**	-0.001	-0.126*	-0.002
	(10.46)		(8.67)		(6.50)		(2.31)	
25-29	0.482**	0.025	0.508**	0.035	-0.854**	-0.002	-0.363**	-0.005
	(7.20)		(9.10)		(8.21)		(5.47)	
30-34	0.200**	0.008	0.365**	0.022	-0.906**	-0.002	-0.632**	-0.007
	(3.07)		(6.34)		(7.37)		(7.44)	
35-39	0.022	0.001	0.233**	0.012	-1.058**	-0.002	-0.551**	-0.006
	(0.30)		(4.00)		(6.61)		(7.4)	
55-59	-0.098	-0.003	-0.499**	-0.015	-1.059**	-0.002	-0.500**	-0.006
	(0.99)		(5.00)		(4.79)		(5.75)	
60-64	-0.168	-0.005	-0.930**	-0.021			-0.787**	-0.007
	(1.53)		(6.70)				(6.57)	
Tertiary	0.045	0.002	0.068	0.003	0.0994	0.0004	-0.0896*	-0.002
	(0.74)		(1.32)		(1.71)		(2.26)	
High school	-0.066	-0.002	-0.053	-0.002	-0.0467	-0.0002	-0.144**	-0.003
	(1.61)		(1.30)		(1.36)		(4.66)	
South[1]	0.371**	0.014	0.169**	0.008				
	(10.17)		(5.13)					
Married	-0.408**	-0.014	-0.145**	-0.007	-1.390**	-0.011	-0.468**	-0.01
	(7.77)		(3.30)		(12.87)		(12.75)	
At least one child 0-3	-0.054	-0.002	-0.095	-0.004	0.123	-0.0006	0.119*	0.002
	(0.92)		(1.69)		(1.54)		(2.28)	
At least one child 3-5	0.039	0.001	-0.018	-0.001	0.224**	0.001	0.239**	0.006
	(0.64)		(0.34)		(3.33)		(5.01)	
At least one child 6-14	0.070	0.002	0.156**	0.008	0.220**	0.001	0.155**	0.003

	(1.39)	(3.87)	(4.62)	(3.97)
Constant	-2.266**	-2.118**	-1.865**	-1.930**
	(36.07)	(40.81)	(53.29)	(56.27)
Observations	47359	49480	51,308	57,568

Robust z statistics in parentheses

* significant at 5%; ** significant at 1%

[1] Not suitable for Spanish Data

Source: Our elaborations on ISTAT Labour Force Survey and EAP Survey Data 2009

Table A4- Probability of becoming employed in 2009 if unemployed in 2008

	ITALY				SPAIN			
Variables	Men		Women		Men		Women	
	Coeff.	Marginal eff. at means	Coeff.	Marginal eff. at means	Coeff.	Marginal eff. at means	Coeff.	Marginal eff. at means
15-19	-0.059	-0.0023	-0.494***	-0.0094	-0.192**	-0.0360	-0.312**	-0.0039
	(0.64)		(3.96)		(5.15)		(6.88)	
20-24	0.551***	0.0369	0.414***	0.0185	0.313**	0.0755	0.202**	0.0354
	(8.47)		(6.21)		(12.17)		(7.45)	
25-29	0.429***	0.0256	0.502***	0.0242	0.514**	0.1345	0.374**	0.0719
	(6.73)		(8.56)		(22.50)		(15.78)	
30-34	0.312***	0.0166	0.326***	0.0131	0.542**	0.1427	0.407**	0.0793
	(5.34)		(5.67)		(26.63)		(18.74)	
35-39	0.198***	0.0095	0.252***	0.0094	0.485**	0.1249	0.382**	0.0732
	(3.19)		(4.43)		(24.85)		(18.18)	
55-59	-0.356***	-0.0108	-0.542***	-0.0102	0.366**	0.0902	0.273**	0.0495
	(4.19)		(5.54)		(17.27)		(11.49)	
60-64	-0.594***	-0.0149	-1.182***	-0.0147	0.0936**	0.0204	-0.0284	-0.0043
	(5.49)		(6.47)		(3.95)		(1.02)	
Tertiary	-0.181***	-0.0064	0.087*	0.0028	0.425**	0.1050	0.735**	0.1590
	(2.98)		(1.67)		(26.48)		(46.23)	
High school	-0.149***	-0.0059	-0.074*	-0.0022	0.258**	0.0537	0.373**	0.0577
	(3.66)		(1.67)		(26.19)		(46.21)	
South[1]	0.343***	0.0158	0.080**	0.0024				
	(9.44)		(2.13)					
Married	-0.057	-0.0023	-0.157***	-0.0048	0.419**	0.0874	0.250**	0.0392
	(1.27)		(3.67)		(32.87)		(36.01)	
Constant	-2.197***		-2.143***		-1.615**		-1.780**	
	(41.10)		(40.11)		(146.75)		(168.64)	
Observations	47,359		49,48		84,971		90,364	

Robust z statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

[1] Not suitable for Spanish Data

Source: Our elaborations on ISTAT Labour Force Survey and EAP Survey Data 2009

Table A5– Net unemployment benefit – Heckman two step estimation

	ITALY		SPAIN	
	Un.Benefit	Unemployed	Un. Benefit	Unemployed
Age	0.198	-0.080**	0.114**	-0.0754**
	(1.75)	(15.67)	(4.63)	(17.90)
Age squared	-0.002	0.001**	-0.00113**	0.000853**
	(1.52)	(8.98)	(4.06)	(13.58)
South[1]	-0.008	0.093		
	(0.04)	(1.91)		
Man	-0.362*	0.001	0.285**	-0.231**
	(2.00)	(0.02)	(3.35)	(5.81)
Married	0.336	0.094	0.0562	0.0764
	(1.52)	(1.01)	(0.54)	(1.15)
Separated or divorced	0.029	0.109	-0.0239	0.233**
	(0.08)	(1.03)	(0.15)	(2.40)
Widow	0.423	-0.392	0.232	-0.379*
	(0.41)	(1.92)	(0.88)	(2.09)
Secondary	0.435	-0.338**	0.311**	-0.237**
	(0.84)	(5.04)	(3.05)	(3.95)
High School	0.441	-0.481**	0.508**	-0.450**
	(0.66)	(6.43)	(3.62)	(7.5)
Tertiary	-0.148	-0.591**	0.919**	-0.541**
	(0.18)	(5.92)	(7.50)	(8.05)
Chronic ill		0.186		-0.141**
		(1.82)		(3.56)
Presence of children aged 0-5		-0.051		0.196**
		(0.48)		(2.92)
Presence of children aged 6-14		-0.005		-0.0818
		(0.09)		(1.50)
Presence of children aged 15-17		-0.293**		-0.701**
		(2.96)		(4.58)
Constant	3.580**		7.747**	
	(2.64)		(17.03)	
Observations	33423	33423	26,472	26,472
Robust z statistics in parentheses				
* significant at 5%; ** significant at 1%				
[1] Not suitable for Spanish Data				

Source: Our elaborations on IT SILC and ES SILC 2007

Table A6 - Wage Equations - Italy and Spain

	Italy			Spain		
	women		men	women		men
Variables	log wage	Employed	log wage	log wage	Employed	log wage
Age	0.0551***	0.261***	0.0455***	0.0573***	0.205***	0.0225***
	(0.0101)	(0.00789)	(0.00447)	(0.0110)	(0.00763)	(0.00658)
Age squared	-0.000510***	-0.00319***	-0.000406***	-0.000552***	-0.00238***	-0.000170**
	(0.000122)	(9.59e-05)	(5.38e-05)	(0.000128)	(9.23e-05)	(7.73e-05)
Married	-0.0115	-0.303***	0.117***	0.0470*	-0.488***	0.159***
	(0.0213)	(0.0298)	(0.0135)	(0.0283)	(0.0296)	(0.0263)
Presence of		-0.346***			-0.258***	
children aged 0-5		(0.0402)			(0.0473)	
Presence of		-0.381***			-0.198***	
children aged 6-14		(0.0323)			(0.0367)	
Presence of		-0.0668*			-0.199***	
children aged 15-17		(0.0395)			(0.0697)	
High School	0.282***	0.484***	0.164***	0.247***	0.407***	0.158***
	(0.0243)	(0.0277)	(0.0113)	(0.0285)	(0.0306)	(0.0198)
Tertiary education	0.507***	0.558***	0.485***	0.529***	0.905***	0.383***
	(0.0291)	(0.0388)	(0.0212)	(0.0469)	(0.0293)	(0.0206)
Chronic Ill		-0.123***			-0.306***	
		(0.0360)			(0.0340)	
South	-0.148***	-0.546***	-0.136***			
	(0.0274)	(0.0278)	(0.0126)			
Heckman Lambda		0.148***			01	
		(0.0524)			(0.0715)	
Constant	4.049***	-5.352***	4.597***	3.823***	-4.495***	4.871***
	(0.247)	(0.150)	(0.0877)	(0.292)	(0.143)	(0.111)

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Our elaborations on IT SILC and ES SILC 2007