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Abstract

On BHPS data we measure various indices of social capital at the individual and household level, and use them as explanatory variables in standard consumption insurance tests. We find that two out of three aspects of social capital positively impact on consumption smoothing, by reducing the sensitivity of idiosyncratic consumption to idiosyncratic income, both in the long and in the short run. Such effects, however, turn out to be more pronounced in the long run. Further confirmation of the positive impact of social capital on insurance opportunities are derived from an income smoothing exercise, as well as from a Poisson and a Logit analysis on the occurrence of unemployment spells.

Keywords: consumption insurance; social capital; income volatility; item response theory.
JEL codes: A14; C33; D12; D80

1 Introduction

The object of this work is to provide an empirical investigation over the role played by several forms of social capital (social networks, civic participation and neighborhood attachment) in terms of consumption insurance, income volatility and vulnerability to the risk of unemployment. The econometric analysis is based on a sample of households and individuals selected from the British Household Panel Survey (BHPS, hereafter) over the time horizon 1996-2006. First, we evaluate the degree of consumption insurance among U.K. households applying a standard consumption insurance test regression à la Mace (1991). Secondly, the traditional analysis is extended to account for the impact of private social capital onto households' insurance capabilities. Personal contacts, geographic proximity and information flows foster agents' insurance against shocks to income (Cochrane (1991); Townsend (1994); Sørensen and Yosha (2000)). This idea, first outlined by Cochrane (1991), was empirically tested for a number of developing countries (e.g. Townsend (1994); De Weerdt and Dercon (2006); Fafchamps and Lund (2003)) and recently theoretically embedded within the social network analysis (e.g., Bramoullè and Kranton (2007); Ambrus et al. (2010)). However, the empirical contributions cited above concentrated on the existence and effectiveness of risk sharing mechanisms in network contexts, or on the determinants of the formation of such networks. Surprisingly few contributions have dealt with the impact of social capital accumulation on the extent of risk sharing. To the best of our knowledge, only Feigenberg et al. (2010) deal with this topic, and show that, in the context of microfinance, increases in social interaction are associated with improvements in informal risk-sharing. Thus, we intend to contribute to this stream of literature by assessing the effect of several different forms of social capital onto risk sharing; importantly, we do so in the context of an industrialized country where, contrary to the case of developing countries, formal and informal insurance mechanisms coexist. To evaluate the impact exerted by social networks, civic participation and neighborhood attachment onto households' consumption smoothing patterns, we exploit the empirical strategy due to Melitz and Zumer (1999)[1], largely applied for risk sharing analysis among countries, which consists in interacting several proxies for household's social capital with standard test regressors. Moreover, we will also allow for an asymmetric response of consumption to income shocks following the empirical approach proposed in Pierucci and Ventura (2010). As a further step in the analysis, we investigate the effects of social capital over individuals' income volatility; finally, we evaluate the effects of social capital on the probability of experiencing unemployments spells, by implementing a poisson and a probit regression analyses. The paper is structured as follows: section 2 and 3 present data, theory and empirical strategy; the results and the main findings are reported in section 4, section 5 concludes. A Data Appendix gives details on variables.

2 Data

We considered eleven waves of the BHPS (from year 1996 to 2006).[2] The sample has been restricted to include those households interviewed in all the waves considered, characterized by a stable structure and always reporting income, food consumption and other

[1]Further applied and extended by several other contributions such as, among many others, **?**, Balli et al. (2011).

[2]The sample period was cut well before the crisis period in order to avoid any possible influence of the world crisis of years 2008-2009 on income and consumption.

expenditures for non durables such as the amount spent on gas, oil, electricity and coal.[3] These selections generated a panel of 1,083 households for a total of 11,913 observations, which shrinks to 10,830 when we employ the difference of some variables. Data at the household level are used for consumption insurance tests reported in tables 3 and 4. The three item response models (see section 3 and Data Appendix for details on models and data) were estimated with data taken only from the wave (M) of year 2002, a choice dictated by the fact that one of the three dimensions of social capital is available only for that year. These models were employed to assign each individual of the sample three scores, measuring the latent factors corresponding to three potentially distinct aspects of social capital (social networks, civic participation and neighborhood attachment). The analyses on income volatility and unemployment spells, reported in tables from 5 to 8, are conducted at cross sectional level over a sample of 3,183 individuals: in this case the time dimension of data could not be exploited, since the social capital variables are constant over the time horizon considered. In the consumption insurance tests, based on a panel regression model, we were able to use social capital variables since they are interacted with the logarithm and the rate of income growth. Lastly, all monetary variables were deflated by the consumption deflator index (source: Eurostat). Table 1 reports the main descriptive statistics.

3 Theory and the empirical strategy

The main research question of this paper consists in the empirical identification, at a microeconomic level, of the relationship between the stock of social capital available to individuals (households) and the availability of insurance opportunities. As a first step of our analysis we assess the degree of consumption insurance achieved by U.K. households in the short and in the long run applying a standard consumption insurance test à la Mace (1991). The formal theoretical derivation of the consumption insurance test equation in log levels is due to Artis and Hoffmann (2012) and it allows exploiting the information implicit in the levels of the involved variables (focusing, therefore, on the long run aspects of the same phenomenon):

$$\log C_{it} = \phi_i + \nu_t + \beta \log Y_{it} + u_{it} \qquad i = 1, 2, ...N; t = 1, 2, ..., T \tag{1}$$

where $\log C_{it}$ and $\log Y_{it}$ are idiosyncratic consumption and income. This is a two way panel specification, where the inclusion of time fixed effects, ν_t, is tantamount to demeaning all variables, thus expressing both consumption and income as deviations from cross sectional averages.

Correspondingly, the short run test equation takes the following shape:

$$\Delta \log C_{it} = \mu_i + \tau_t + \gamma \Delta \log Y_{it} + \epsilon_{it} \quad i = 1, 2, ...N; t = 2, ..., T \tag{2}$$

Within this framework, the estimate of parameters β and γ, i.e. the elasticity of idiosyncratic consumption (growth) to idiosyncratic income (growth), is usually interpreted as the

[3] See Data Appendix for details on variables.

extent of the deviation from a situation of full risk sharing, and measures the unsmoothed share of shocks to idiosyncratic income, while 1-β and 1-γ are the degree of consumption insurance achieved by a given household respectively in the long and in the short run. Once we compute and include the social capital variables, our estimated model becomes:

$$\log C_{it} = \phi_i + \nu_t + \beta_1 \log Y_{it} + \sum_{k=1}^{3} \beta_2^k \log Y_{it} SC_i^k + \beta_3 \log Y_{it} NC_i + u_{it} \tag{3}$$

where SC_i^k is the estimated score of the social capital of the k-th type. The k types of social capital (SC_i^k) are: Social Networks (SN_i); Civic Participation (CP_i) and Neighbourhood Attachment (NA_i). NC_i is the number of household's components. The corresponding short run test equation is:

$$\Delta \log C_{it} = \mu_i + \tau_t + \gamma_1 \Delta \log Y_{it} + \sum_{k=1}^{3} \gamma_2^k \Delta \log Y_{it} SC_i^k + \gamma_3 \Delta \log Y_{it} NC_i + \epsilon_{it} \tag{4}$$

Where β and γ take the form:

$$\beta = \beta_1 + \sum_{k=1}^{3} \beta_2^k SC_i^k + \beta_3 NC_i \tag{5}$$

$$\gamma = \gamma_1 + \sum_{k=1}^{3} \gamma_2^k SC_i^k + \gamma_3 NC_i \tag{6}$$

and the extent of consumption insurance achieved by households in the short and in the long run is computed as:

$$1 - (\beta_1 + \sum_{k=1}^{3} \beta_2^k SC_i^k + \beta_3 NC_i) \tag{7}$$

$$1 - (\gamma_1 + \sum_{k=1}^{3} \gamma_2^k SC_i^k + \gamma_3 NC_i) \tag{8}$$

Our theoretical prior is a negative sign for β_2^k and γ_2^k for k=1,2,3, which implies a positive effect of social capital variables onto households' insurance possibilities both in the long and in the short run.

We also allow for asymmetric responses of consumption to income shocks, by estimating the following long run and short run equations:

$$\begin{aligned} \log C_{it} = \phi_i + \nu_t + \beta_1^+ \log Y_{it}^+ + \beta_1^- \log Y_{it}^- + \sum_{k=1}^{3} \beta_2^{k+} \log Y_{it}^+ SC_i^k + \sum_{k=1}^{3} \beta_2^{k-} \log Y_{it}^- SC_i^k \\ + \beta_3^+ \log Y_{it}^+ NC_i + \beta_3^- \log Y_{it}^- NC_i + u_{it} \end{aligned} \tag{9}$$

where positive and negative shocks are associated to those levels of income corresponding to a positive (negative) deviation of income from its long run component (computed using a time trend). The short run equivalent of equation (9) will be:

$$\Delta \log C_{it} = \phi_i + \nu_t + \gamma_1^{+} \Delta \log Y_{it}^{+} + \gamma_1^{-} \Delta \log Y_{it}^{-} + \sum_{k=1}^{3} \gamma_2^{k+} \Delta \log Y_{it}^{+} SC_i^k + \sum_{k=1}^{3} \gamma_2^{k-} \Delta \log Y_{it}^{-} SC_i^k$$
$$+ \gamma_3^{+} \Delta \log Y_{it}^{+} NC_i + \gamma_3^{-} \Delta \log Y_{it}^{-} NC_i + u_{it} \tag{10}$$

Despite the existence of a wide and growing specialized literature, the theoretical notion of social capital remains still vague in the research community (Li et al. (2005)). This problem is amplified in applied analyses, where the empirical counterparts of the theoretical notions can differ even to a large extent, a fact that impedes a proper comparison of the results obtained by different authors. In this work we have chosen to to follow the approach by Li et al. (2005), who recognize that social capital is a multidimensional collective good originated by formal and informal engagements of individual in groups/networks. The authors identify three aspects of social capital, i.e. *Neighbourhood attachment* (an informal weak tie), *Social networks* (an informal strong tie) and *Civic participation* (a formal tie). To get a more clear idea of the actual content of each social capital factor, the reader is referred to the list of items which are somehow aggregated to define each of them, and that are illustrated in the data appendix. In short, we might say that the variable *Social networks* recaps some more intimate aspects of social and friendly relationships, *Civic participation* is based on individuals' engagements in well established interests groups, whereas *Neighbourhood attachment* refers to the participation in the network formed by people residing in the same neighbourhood. Li et al. (2005) assume that these three types of social capital are in fact unobservable ("latent variables"), and try to measure such variables by applying new tools provided by the Item Response Theory. Within this approach it is assumed that each of the three latent variables drives the probability of experiencing a given outcome for a set of observed items such as, for example, the participation to a network, that are generally measured on a binary or an ordinal scale. Within the framework of the Item Response Theory, the items are the questions formulated to a group of individuals, representing particular aspects of a latent factor under investigation. In our analysis, to each of the three types of social capital, there correspond different sets of items (questions) taken from the BHPS questionnaire. [4] Formally, let us denote by SC_i one of the three (latent) aspects of social capital available to the i-th individual, with (X_{ij}) the (observable) response of the i-th individual to the j-th item. Therefore, to model the probability that an individual has a preassigned value q in a generic item we adopt, for each of the three types of social capital, the following proportional odds logistic model:

[4]For a complete description of the three sets of items (questions), see the Data Appendix.

$$\ln\left(\frac{Pr(X_{ij})\leq q}{Pr(X_{ij})>q}\right)=\alpha_q+\lambda_j SC_i \tag{11}$$

To estimate the model we use the GLLAMM package (Generalized Linear Latent and Mixed Models) for Stata.[5] The results of the estimates are non reported but available upon request.[6] This model was used to assign specific amounts of social capital, of the three types, to each individual of the sample. Lastly, the overall stock of social capital of the k-th type and for a given household was computed as the sum of the stocks of social capital of its members.

To understand whether the effect of social capital on risk sharing goes through income pooling, we also investigated over the impact of social capital on individuals' income volatility, by estimating the following equation:

$$CV_i=\phi_0+\sum_{k=1}^{3}\phi_{1k}SC_i^k+\mathbf{\Phi_2 Z_i}+\varepsilon_{it}\quad k=1,2,3 \tag{12}$$

where CV_i is the coefficient of variation of individual income and Z_i is a column vector containing control variables.

Lastly, we explore the role of social capital in determining the probability of experiencing unemployments spells (at an individual level), as we believe that one of the most powerful shocks to individual well being comes through unemployment spells (see, for example, the seminal contribution by Cochrane (1991)). We did that by estimating a Poisson model and a probit regression. Thus, assuming that the unemployment spells variable is distributed as a Poisson random variable of parameter λ, we estimated its expected value:

$$\lambda=E[y|\mathbf{x_i}]=exp(\mathbf{x_i}'\beta) \tag{13}$$

where y is the number of unemployment spells experienced by an individual over the full time sample and $\mathbf{x_i}$ is a vector of social capital variables (table 6 or items, as in table 7), and controls. Finally, as a robustness check we performed a probit estimation to evaluate the marginal effect of social capital (and of items) over the probability of experiencing unemployment. We expect social capital to exert a negative impact on the probability of experiencing unemployment, since a higher level of social capital should provide more possibilities of finding a job and to move more easily from one job to another. In table 8 we report the estimation results of the following model:

$$Pr(Y=1|\mathbf{x_i})=\theta(\mathbf{x_i}'\beta) \tag{14}$$

where Y is a binary variable (ever unemployed) taking value 1 if an individual has experienced at least one unemployment spell in the sample and zero otherwise.

[5]We are deeply indebted to Yaojun Li for kindly providing us with the Stata code used in Li et al. (2005).

[6]For a detailed description of the database and of the items employed for each latent factor see the Data Appendix.

4 Results

We will now explore the main empirical findings of our research. As outlined above, the first step of our analysis consists in assessing the degree of consumption insurance achieved by U.K. households and evaluate the impact of social capital on their insurance possibilities. Before performing these tests for the long run we conducted panel unit root tests on log levels of income (Y_{it}), consumption of food (C_{it}^{f}) and consumption of food and other non durables (C_{it}^{fnd}) in order to exclude the possibility of a spurious long run regression. Table 2 reports the results of panel unit root tests for small T (Harris and Tzavalis (1999)) since we have a typical microeconomic sample, characterized by a big N and a small T. All tests reject the null hypothesis of unit root.[7]Consumption insurance tests are reported in tables 3 and 4. British households seem to be better insured against shocks to income in the short rather than in the long run, which might point at the decisive role played by savings, a consumption smoothing channel which typically works better in the long run. The overall degree of consumption smoothing in the long run, and when social capital is not explicitly accounted for, is about 85 percent for both categories of consumption. We can also immediately realize that increasing the number of households' components improves on the degree of consumption smoothing (i.e. reduces the co-movement of consumption relative to income). When social capital variables are explicitly taken into account we realize that the coefficient of social networks is not statistically significant, while those of the other two measures of social capital (civic participation and neighborhood attachment) are and, on average, they account [8] for a reduction of about 3 percent and 3.5 percent of the unsmoothed component of consumption, respectively (panel a, columns (3) and (4) in table 3). This may seem a tiny percentage, but in fact the picture changes if we compute the increase in consumption smoothing associated to a one standard deviation of those variables: the corresponding decrease in the unsmoothed component would be about 9 percent for civic participation, and 8 percent for neighbourhood attachment.

In the short run (panel b, table 3) we obtain a similar, positive, impact of social capital on consumption insurance, though seemingly weaker: social networks, again, do not seem to have a statistically significant effect, civic participation looses significance (most likely in view of the increase in overall variability), while neighborhood attachment keeps a statistically significant and positive impact, but only for the broader consumption aggregate. U.K. households seem to be almost fully insured in the short run given that, for example, γ_1 in table 3 column (4) is equal to 0.0587, which implies a degree of consumption smoothing of about 94 percent, further increased by the impact of social networks (however, the corresponding coefficient's estimate is not statistically significant at conventional levels), by neighborhood attachment and by the numerical composition of the household. Summing up all those effects, the overall degree of consumption insurance is virtually complete. We can clearly see that the positive effects of social capital are more pronounced in the long run rather than in the short run, in absolute value. For instance, civic participation

[7]Harris and Tzavalis (1999) tests were also performed, including panel mean and/or trend and the null was always rejected.

[8]This is computed as in equation (7).

variable reduces the unsmoothed part of risk by 0.25 percent in the long run and by 0.06 percent in the short run, on average (if we consider C_{it}^{fnd}), whereas neighbourhood attachment increases consumption insurance by 0.20 percent in the long run and by 0.14 percent in the short run. In other words, the role of social capital in smoothing consumption is more relevant in the long run when, as often evoked by a strand of literature, the credit channel of smoothing may become less effective and individuals may face more credit restrictions.[9] According to the empirical evidence in Guiso et al. (2004), we might conjecture that the positive impact of social capital on consumption insurance in the long run is imputable to improvements in the credit channel of smoothing. Table 4 reports results for the same consumption insurance tests as in table 3, but allowing for asymmetric responses of consumption to income shocks (estimated equations number (9) and (10)). This analysis mainly confirms the results displayed in table 3. We detect no asymmetry in responses of consumption to income shocks, as coefficients attached to positive and negative shocks are always both significant (or non significant) and very similar in magnitude. This is true also for the social capital interaction variables: social capital seems to help smoothing negative as well as positive shocks to income.

The analysis reported in table 4 further confirms how social capital plays a more relevant role in the long run rather than in the short run since social capital interaction variables, in the short run, turn out to be non significant in case of both positive and negative shocks (but for neighbourhood attachment which is negative statistically significant in the face of positive shocks).

The results of the third step of our empirical analysis are reported in table 5. We computed the coefficient of variation of idiosyncratic income and regressed it against our social capital variables and a set of controls (refer to Data Appendix for a description of the dependent variable, control variables and regressors) in order to study the impact of social capital over income volatility, which is key in understanding consumption insurance. Our prior was that social capital should reduce income volatility particularly with respect to negative shocks, and thus we estimated equation (12) for the coefficient of variation itself and for its positive (over the mean) and negative (below the mean) counterparts. We use an instrumental variable regression with the following instruments: marital status, age, human capital and the interaction between age and marital status and human capital (A test of endogeneity and the Hansen test of over-identifying restrictions are reported in table 5). Results are completely consistent with our previous analysis: civic participation and neighbourhood attachment lower income volatility, while social networks is not statistically significant. The same conclusions hold when we separately look at "upside" and "downside" income smoothing. Among the various results, it is worth noticing that if an individual has "no religion", this impacts positively on (lowers) income volatility, while the same holds for being Roman Catholic and for belonging to black/british african ethnicity. Moreover "singles" (people who have never been married or separated, divorced, widow) feature a less volatile income.

Table 6 and table 7 report the estimation results for the Poisson regression of unemploy-

[9] E.g. Asdrubali et al. (1996); Becker and Hoffmann (2006).

ment spells. We investigate the hypothesis that social capital can reduce the average number of unemployments spells experienced by individuals. We estimated equation (13) using as regressors our social capital variables and a set of controls (table 6). We also conducted the same analysis directly including the survey questions on social capital (the items used to construct our social capital variables through the Item Response Theory) as regressors (table 7). When we consider social capital variables as regressors, results seem to be clear-cut: all three aspects of social capital are statistically significant and negative with respect to different equation specifications, i.e. they have a negative impact on the average number of spells an individual experienced over the sample period (1996-2006).[10] Human capital in the form of the attainment of a level of education corresponding to a degree, a master degree or a doctorate always lowers numbers of unemployment spells. Married people, as well as white British, withe Irish, white scottish, Anglicans, Roman Catholics and Christians (no denom.) feature a lower (average) number of unemployment spells. Lastly, Looking at table 7 we can check the impact of each item (survey questions on social capital): but for few exceptions,[11] all items entering significantly in the regression display a negative coefficient, confirming the positive role played by social capital on the average number of unemployment spells. Control variables on race, religion, human capital and marital status qualitatively confirm the results reported in table 6. In Table 8 we report the last empirical exercise, where we constructed a binary variable[12] taking value one if an individual has experienced at least one employment spell over the sample period and zero otherwise. By using a probit estimation we estimated the marginal effects[13] of social capital and a set of controls over the probability of experiencing an unemployment spell. All three aspects of social capital (at least when we include control variables) reduce such a probability. On the other hand, being black/british caribbean, singles, employee increases the probability of unemployment spells. The opposite is true for married people and for those having a permanent job. Items entering significantly with a negative sign are mainly attributable to the second aspect of social capital (civic participation).

5 Conclusions

That repeated social interactions may foster risk sharing among individuals, in the form of both income and consumption smoothing, has surfaced in several recent contributions. However, a proper empirical validation of this hypothesis has been partial, at most, and concentrated on under developed or developing economic setups. We tried to fill this gap by proposing a risk sharing analysis on British individuals and households, where various

[10]This analysis is a cross section: the variable “unemployment spells” is constructed as the number of unemployments spells experienced by an individual over the sample period. See data appendix for details.

[11]i.e. “more than one who really appreciate you; “more than one who comforts you”; “participation in political party”; “participation in social group”.

[12]Based on the variable “unemployment spells”. See data appendix for details.

[13]Reported in table 8.

dimensions of social capital accumulation have been derived from BHPS microdata, by using some recently developed econometric tools based on the Item Response Theory. The dimensions of social capital that we explore, following Li et al. (2005), are: *Social Networks*, *Neighbourhood Attachment*, and *Civic Participation*. Our empirical results point at a positive role of the last two forms of social capital on risk sharing, whereas the first would not seem to play any role. The same conclusion we obtain in the context of an income smoothing analysis, while an even stronger result is yielded by a Probit and a Poisson analysis on the occurrence and the frequency of unemployment spells: in this case, all three forms of social capital play a positive role in insuring agents with respect to both the occurrence and the relative frequency of unemployment shocks.
Although we believe our results are quite robust, as they survived different model specifications, we are also convinced that more detailed micro data, uncovering explicit links and networks structures among individuals and households would be extremely useful to properly quantify the impact of social capital on risk sharing mechanisms.

6 Data Appendix[14]

Waves included: from G to Q (from year 1996 to year 2006).
All "missing or wild" cases (which take value -9), "don't know" cases (which take value -1), "proxy respondent" cases (which take value -7), "refused" cases (which take value -2) and "inapplicable"[15] cases (which take value -8) are considered missing values, thus excluded.
For analyses reported from table 5 to 8 all control variables described below were used in the following way: for each realization of the variable, a dummy was created and included in the regressions.
Age: (W)AGE
Asymmetric shocks to income: $\log Y_{it}^{+}$ and $\Delta \log Y_{it}^{+}$ represent positive shocks, income and income growth rate are multiplied by a dummy variable which takes value 1 in correspondence of a positive deviation of income from its long run component (computed using a time trend) and zero otherwise. The complement to 1 of the aforementioned dummy variable multiplied by income and the rate of growth of income gives the negative shock variables $\log Y_{it}^{-}$ and $\Delta \log Y_{it}^{-}$.
Coefficient of variation (CV_i) of idiosyncratic income: CV_i stands for Coefficient of Variation of the idiosyncratic component of income. Idiosyncratic income is computed following Pierucci and Ventura (2010) as the residual of the following regression $\log(y_{it}) = \widehat{\beta}\log(y_{at}) + e_{it}$, where $\log(y_{it})$ is individual's income and $\log(y_{at})$ is the average income of the reference group.This method guarantees orthogonality between aggregate

[14] Name of variables as in British Households Panel Survey are reported in capital letters. (W) represents the generic wave W. Data elaboration is quite complex, this appendix aims to be as much accurate as possible, however it can not be completely exhaustive. Stata codes generating the dataset are available upon request.

[15] Exceptions to this case are reported in the description of variables.

and idiosyncratic components of income. CV_i^+ and CV_i^- represent the positive (over the mean) and the negative (below the mean) counterparts of the Coefficient of Variation.
Consumption:
1) non durables
Amount spent on gas (W)XPGASY ;
Amount spent on electricity (W)XPLECY;
Amount spent on oil (W)XPOILY;
Amount spent on coal/other (W)XPSFLY;
2) food
Total weekly food and grocery bill (W)XPFOOD.
Food consumption data were converted from weekly classes to numeric annual values, multiplying average weekly consumption of each class by number of weeks in a year (53). Data on non durable goods are annual. Our dependent variables in test regressions (tab 3 and tab 4) are the log level and the rate of growth of: C_{it}^{f}, which stands for consumption of food and C_{it}^{fnd}, which stands for consumption of food plus non durables.
Employee or self-employed: based on variable (W)JBSEMP taking value 1 for employee, 2 for self-employed and -8 for inapplicable. For each individual, number of years (over the full sample 1996-2006) for each realization of the variable was computed. A variable named *dum-empl* was calculated using a "predominance" approach: an individual is considered employee if he/she was employed for the majority of time as employee. This variable assumes values from 1 to 3 (namely: employee, self-employed and inapplicable).
Households' income: Annual h/h income=Sum the values of individual annual total income for individuals in the household (W)FIHHYR.
Human capital: based on the variable (W)QFEDHI taking 13 realizations corresponding to 13 "highest" levels of education. We assumed this variable, over our sample period, to be time invariant and we choose to impute to each individual the qualification possessed at median year (2001). Thus we computed the corresponding number of years of education to each qualification converting a categorical variable into a numeric variable reporting "years of education". This variable was named *human capital* and used as instrument in the IV regression whose results are reported in table 5. Human capital was used as control variable in the analyses reported from table 5 to 8 once converted in a dummy (named *degree and over* which takes value 1 for those having a degree or more and zero otherwise.
Individual income: Annual individual income (W)FIYR=Annual gross labour income (W)FIYRL+Annual non-labour income (W)FIYRNL
Marital status: based on variable (W)MLSTAT. The (W)MLSTAT variable was recoded in order to get: value 1 if married, value 2 if separated or divorced, value 3 if widow and value 4 if never married. Over the full sample (1996-2006), for each individual, the number of years in each status (married, separated or divorced, widow, never married) was calculated. Finally, a variable named *status* was calculated using a "predominance" approach: each individual was considered in a specific status (let say married) if the number of years spent in that status was bigger than the number of years spent in any other status. The *status* variable takes values from 1 to 4 (married, separated or divorced, widow, never married, respectively).

Number of household's components: We compute the number of components of households included in our sample (households included in our sample have a stable structure).
Permanent or temporary job: based on variable (W)JBTERM1 which assumes value 1 for permanent job, 2 for transitory job and -8 for inapplicable. For each individual, number of years (over the full sample 1996-2006) for each realization of the variable was computed. A variable named *dum-perm* was calculated using a "predominance" approach: each individual was considered having a permanent job if he/she had been employed for the majority of time with a permanent job. This variable assumes values from 1 to 3 (namely: permanent, transitory and inapplicable).
Race: variable (W)RACEL taken only from wave M since this control variable is time invariant.
Religion: (W)OPRLG1 taken from wave N, give the limited time horizon considered, we assume this control variable to be time invariant.
Social capital variables.
I. Social Networks (SN_i)[16]: list of questions (items) included taken from wave M-Social Support Networks file (individual questionnaire INDRESP.). For analyses at household level, the factor is given by the average of household's members factors.
1) Anyone to listen when you need to talk? (W)SSUPA
2) Anyone to help you out in a crisis? (W)SSUPB
3) Anyone to be totally yourself with? (W)SSUPC
4) Anyone really appreciates you as a person? (W)SSUPD
5) Anyone to comfort you when you are very upset? (W)SSUPE
6) Anyone outside h/h to help you if depressed? (W)XSUPA
7) Anyone outside h/h to help you to get job? (W)XSUPB
8) Anyone outside h/h to lend you money? (W)XSUPC
All questions on Social Networks were recoded to be increasing from 1 to 3 (no-one; yes one person; more than one). For analyses reported in table 7 and table 8 a dummy variable was created for the highest category of each question and then included in the regression.
II. Civic Participation (CP_i)[17]: list of questions (items) included taken from wave M-Social and Interest Group Activity (and membership) file (individual questionnaire INDRESP.). For analyses at household level, the factor is given by the average of household's members factors.
1) Active in political party (W)ORGAA
2) Active in trade unions (W)ORGAB)
3) Active in environmental group (W)ORGAC
4) Active in parents association (W)ORGAD
5) Active in tenants/resident's group (W)ORGAE
6) Active in religious group (W)ORGAF

[16] List of questions (items) on Social Support Networks employed to compute that latent aspect of social capital given by social networks. For a detailed description of the methodology applied, see section 4.

[17] List of questions (items) on Social and Interest Group Activity employed to compute that latent aspect of social capital given by civic participation. For a detailed description of the methodology applied, see section 4.

7) Active in voluntary group (W)ORGAG
8) Active in other community group (W)ORGAH
9) Active in social group (W)ORGAI
10) Active in sports club (W)ORGAJ
11) Active in womens's institute (W)ORGAK
12) Active in womens's group (W)ORGAL
13) Active in other organization (W)ORGAM
14) Active in professional organisation (W)ORGAO
15) Active in pensioner's organisation (W)ORGAP
16) Active in scouts/guide groups (W)ORGAQ
All questions on Civic participation were recoded to take values from 1 to 2 (no; yes). For analyses reported in table 7 and table 8 a dummy variable was created for the highest category of each question and then included in the regression.
III. Neighbourhood Attachement (NA_i)[18]: list of questions (items) included taken from wave M-Neighbourhood and Residence file (individual questionnaire INDRESP.). For analyses at household level, the factor is given by the average of household's members factors.
1) I belong to this neighbourhood (W)OPNGBHA
2) Friends in my neighbourhood mean a lot (W)OPNGBHB
3) Advice available from my neighbourhood (W)OPNGBHC
4) Borrow and exchange and favours with neighbours (W)OPNGBHD
5) Improve my neighbourhood (W)OPNGBHE
6) Would remain in the neighbourhood (W)OPNGBHF
7) Similar to others in the neighbourhood (W)OPNGBHG
8) Regularly stop and talk with neighbours (W)OPNGBHH
All questions on Neighbourhood Attachement were recoded to be increasing from 1 to 5 (strongly disagree; disagree; neither agree/disagree; agree; strongly agree). For analyses in tables 7 and 8 category 4 an 5 were aggregated and a dummy variable was created for the highest category (4 and 5) of each question and then included in the regression.
Spouse/partner employed now (partner works): based on variable (W)SPJB which assumes value 0 if spouse or partner works, 1 if spouse or partner does not work and -8 for inapplicable. For each individual, number of years (over the full sample 1996-2006) for each realization of the variable was computed. A variable named *pwork* was calculated using a "predominance" approach: each individual was considered to have spouse or partner at work if the number of years for which spouse or partner had been working are more than years for which spouse or partner had been unemployed, and if the *status* variable assumes value 1 (married). In order to avoid data losses (mainly due to the presence of widow, separated or divorced and never married among the inapplicable cases) we imposed that for realizations 2, 3 and 4 of the *status* variable (namely: separated or divorced, widow,

[18]List of questions (items) on Neighbourhood and Residence employed to compute that latent aspect of social capital given by Neighbourhood Attachement. For a detailed description of the methodology applied, see section 4.

never married) the variable *pwork* assumes value 3 (we refer to this realization of the *pwork* variable as *"singles"*). The variable *work* assumes value 1 for spouse or partner working, 2 for spouse or partner not working.
Unemployment spells: number of unemployment spells in a year (W)NJUSP. We computed the dependent variable used in tables 6 and 7 as the total number of unemployment spells over the full sample (1996-2006).

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List of Tables

Table 1: Main descriptive statistics 1996-2006

panel a) Households					
Variable	Obs	Mean	Std. Dev.	Min	Max
Score for Social Networks (SN_i)	11913	0.0763	1.2662	−4.9965	1.6864
Score for Civic Participation (CP_i)	11913	0.0605	0.3148	−0.2022	1.4700
Score for Neighbourhood Attachment (NA_i)	11913	0.1624	1.3791	−4.6697	4.6305
Number of households' components	11913	2.0905	1.0671	1.0000	6.0000
Amount spent on gas in real terms	11913	311.3345	227.9114	0.0000	6850.6190
Amount spent on oil in real terms	11913	17.3256	109.9643	0.0000	3277.1540
Amount on electricity in real terms	11913	304.5177	200.6890	−3.8760	7000.0000
Amount on coal/other in real terms	11913	10.9511	64.6330	0.0000	1178.7820
Household's real income	11913	26019.1500	18121.4100	0.5495	264336.6000
Log of household's real income	11913	9.9404	0.7210	−0.5988	12.4850
Rate of growth of household's real income ($\Delta \log Y_{it}$)	10830	0.0169	0.4621	−10.4349	10.4368
Real food consumption	11913	3214.9300	1470.7320	240.8564	8462.2640
Log real food consumption	11913	7.9607	0.5047	5.4842	9.0434
Rate of growth real food consumption ($\Delta \log(C_{it}^{f})$)	10830	0.0126	0.3023	−2.2021	2.6097
Real food and non durables consumption	11913	3859.0590	1614.0540	334.3465	17728.8300
Log of real food and non durables consumption	11913	8.1657	0.4451	5.8122	9.7829
Rate of growth of real food and non durables consumption ($\Delta \log(C_{it}^{fnd})$)	10830	0.0136	0.2533	−1.4247	1.8071
panel b) Individuals					
Variable	Obs	Mean	Std. Dev.	Min	Max
sex	3183	0.5514	0.4974	0	1
Individual real income	3183	17831.0800	13191.2300	110.9091	226772.8000
Log of individual real income	3183	9.4181	0.7788	4.1525	12.0338
Rate of growth of individual real income	3183	0.0307	0.1054	−1.1516	0.9381
Age	3183	42.3491	10.0245	22.1818	60.9091
Unemployment spells	3183	0.4439	1.1228	0.0000	12.0000
Ever Unemployed	3183	0.2215	0.4153	0.0000	1.0000
Score for Social Networks (SN_i)	3183	0.2252	1.4560	−4.9965	1.6864
Score for Civic Participation (CP_i)	3183	0.0378	0.3472	−0.2022	1.6153
Score for Neighbourhood Attachment (NA_i)	3183	−0.0540	1.5863	−6.0783	4.6305
Coefficient of Variation of the idiosyncratic income (CV_i)	3183	0.0463	0.0569	0.0006	0.5655
Coefficient of Variation of the idiosyncratic income (positive, CV_i^+)	3183	0.0322	0.0405	0.0005	0.4021
Coefficient of Variation of the idiosyncratic income (negative, CV_i^-)	3183	0.0325	0.0406	0.0004	0.4486

Food consumption data were converted from weekly classes to numeric annual values, multiplying average weekly consumption of each class by number of weeks in a year (54). Data on non durable goods are annual. At household level, the Social Capital factors are given by the average of household's members factors. For details on variables, refer to Data Appendix.

Table 2: Panel Unit-Root Tests (Harris and Tzavalis (1999))

VARIABLES	statistic	Z	p-value
$\log Y_{it}$	0.3122	-49.5575	0.0000
$\log(C_{it}^{f})$	0.2658	-55.0948	0.0000
$\log(C_{it}^{fnd})$	0.3047	-50.4494	0.0000

Ho: panels contain unit roots; H1: panels are stationary. Tests were performed also including panel mean and/or trend and the null was always rejected (results not reported here, available upon request). Test were conducted applying Stata command xtunitroot ht with option altt which use T-1 for computation of mean and variance of the test statistic under the null hypothesis.

Table 3: Test of consumption insurance-households

panel a) consumption insurance test-log levels				
	(1)	(2)	(3)	(4)
VARIABLES	$\log(C_{it}^{f})$	$\log(C_{it}^{fnd})$	$\log(C_{it}^{f})$	$\log(C_{it}^{fnd})$
$\beta_1(\log Y_{it})$	0.1549***	0.1357***	0.1602***	0.1407***
	(0.013)	(0.011)	(0.014)	(0.012)
$\beta_2^1(\log Y_{it}) * SN_i$			0.0025	0.0014
			(0.005)	(0.004)
$\beta_2^2(\log Y_{it}) * CP_i$			−0.0494***	−0.0417***
			(0.019)	(0.016)
$\beta_2^3(\log Y_{it}) * NA_i$			−0.0080**	−0.0123***
			(0.004)	(0.003)
$\beta_3(\log Y_{it}) * NC_i$	−0.0244***	−0.0219***	−0.0257***	−0.0226***
	(0.006)	(0.005)	(0.006)	(0.005)
Constant	6.9830***	7.3538***	6.9975***	7.3614***
	(0.062)	(0.053)	(0.064)	(0.055)
Observations	11913	11913	11913	11913
R-squared	0.057	0.074	0.058	0.076
Number of households	1083	1083	1083	1083
panel b) consumption insurance test-growth rates				
VARIABLES	$\Delta\log(C_{it}^{f})$	$\Delta\log(C_{it}^{fnd})$	$\Delta\log(C_{it}^{f})$	$\Delta\log(C_{it}^{fnd})$
$\gamma_1(\Delta\log Y_{it})$	0.0708***	0.0596***	0.0684***	0.0587***
	(0.015)	(0.013)	(0.016)	(0.014)
$\gamma_2^1(\Delta\log Y_{it}) * SN_i$			0.0057	0.0036
			(0.006)	(0.005)
$\gamma_2^2(\Delta\log Y_{it}) * CP_i$			−0.0127	−0.0110
			(0.020)	(0.017)
$\gamma_2^3(\Delta\log Y_{it}) * NA_i$			−0.0046	−0.0084***
			(0.004)	(0.003)
$\gamma_3(\Delta\log Y_{it}) * NC_i$	−0.0219***	−0.0172***	−0.0214***	−0.0169***
	(0.007)	(0.006)	(0.008)	(0.006)
Constant	0.0060	0.0100	0.0117	0.0355***
	(0.010)	(0.008)	(0.010)	(0.008)
Observations	10830	10830	10830	10830
R-squared	0.003	0.005	0.004	0.006
Number of households	1083	1083	1083	1083

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Estimated test equation in panel a) $\log(C_{it}) = \phi_i + \nu_t + \beta_1(\log Y_{it}) + \sum_{k=1}^{3}\beta_2^k(\log Y_{it})SC_i^k + \beta_3(\log Y_{it})NC_i + u_{it}$. Estimated test equation in panel b) $\Delta\log(C_{it}) = \mu_i + \tau_t + \gamma_1(\Delta\log Y_{it}) + \sum_{k=1}^{3}\gamma_2^k(\Delta\log Y_{it})SC_i^k + \gamma_3(\Delta\log Y_{it})NC_i + \epsilon_{it}$. The k types of social capital (SC_i^k) are: Social Networks (SN_i); Civic Participation (CP_i) and Neighbourhood Attachment (NA_i). NC represents number of household's components. Individual and time dummies included. Test performed is a standard test introduced by (e.g. Asdrubali et al. (1996)) (then extended as "conditional beta" test regression, among others, by Melitz and Zumer (1999)) with the novelty of social capital interaction variables. C_{it}^{f} stands consumption of food, C_{it}^{fnd} stands for consumption of food plus other non durables.

Table 4: Test of consumption insurance with asymmetric shocks-households

panel a) consumption insurance test with asymmetric shocks-log levels				
	(1)	(2)	(3)	(4)
VARIABLES	$\log(C_{it}^{f})$	$\log(C_{it}^{fnd})$	$\log(C_{it}^{f})$	$\log(C_{it}^{fnd})$
$\beta_1^{+}(\log Y_{it})^{+}$	0.1416***	0.1246***	0.1550***	0.1375***
	(0.015)	(0.013)	(0.016)	(0.014)
$\beta_1^{-}(\log Y_{it})^{-}$	0.1421***	0.1250***	0.1561***	0.1384***
	(0.016)	(0.014)	(0.017)	(0.014)
$\beta_2^{1+}(\log Y_{it})^{+} * SN_i$			−0.0030	−0.0040
			(0.006)	(0.005)
$\beta_2^{1-}(\log Y_{it})^{-} * SN_i$			−0.0029	−0.0040
			(0.006)	(0.005)
$\beta_2^{2+}(\log Y_{it})^{+} * CP_i$			−0.0626***	−0.0526***
			(0.021)	(0.018)
$\beta_2^{2-}(\log Y_{it})^{-} * CP_i$			−0.0650***	−0.0551***
			(0.022)	(0.019)
$\beta_2^{3+}(\log Y_{it})^{+} * NA_i$			−0.0085**	−0.0134***
			(0.004)	(0.003)
$\beta_2^{3-}(\log Y_{it})^{-} * NA_i$			−0.0084**	−0.0135***
			(0.004)	(0.003)
$\beta_3^{+}(\log Y_{it})^{+} * NC_i$	−0.0200***	−0.0181***	−0.0238***	−0.0212***
	(0.007)	(0.006)	(0.007)	(0.006)
$\beta_3^{-}(\log Y_{it})^{-} * NC_i$	−0.0196***	−0.0177***	−0.0236***	−0.0209***
	(0.008)	(0.006)	(0.008)	(0.007)
Constant	6.9158***	7.2498***	6.9162***	7.2430***
	(0.072)	(0.061)	(0.075)	(0.064)
Observations	10830	10830	10830	10830
R-squared	0.048	0.070	0.050	0.073
Number of households	1083	1083	1083	1083

panel b) consumption insurance test with asymmetric shocks-growth rates				
VARIABLES	$\Delta\log(C_{it}^{f})$	$\Delta\log(C_{it}^{fnd})$	$\Delta\log(C_{it}^{f})$	$\Delta\log(C_{it}^{fnd})$
$\gamma_1^{+}(\Delta\log Y_{it})^{+}$	0.0755***	0.0580***	0.0745***	0.0611***
	(0.024)	(0.020)	(0.026)	(0.021)
$\gamma_1^{-}(\Delta\log Y_{it})^{-}$	0.0667***	0.0610***	0.0630**	0.0558***
	(0.023)	(0.019)	(0.025)	(0.021)
$\gamma_2^{1+}(\Delta\log Y_{it})^{+} * SN_i$			0.0064	0.0015
			(0.010)	(0.008)
$\gamma_2^{1-}(\Delta\log Y_{it})^{-} * SN_i$			0.0051	0.0054
			(0.008)	(0.007)
$\gamma_2^{2+}(\Delta\log Y_{it})^{+} * CP_i$			−0.0232	−0.0277
			(0.031)	(0.026)
$\gamma_2^{2-}(\Delta\log Y_{it})^{-} * CP_i$			−0.0026	0.0077
			(0.031)	(0.026)
$\gamma_2^{3+}(\Delta\log Y_{it})^{+} * NA_i$			−0.0059	−0.0116**
			(0.006)	(0.005)
$\gamma_2^{3-}(\Delta\log Y_{it})^{-} * NA_i$			−0.0033	−0.0054
			(0.005)	(0.005)
$\gamma_3^{+}(\Delta\log Y_{it})^{+} * NC_i$	−0.0220*	−0.0167*	−0.0221*	−0.0174*
	(0.011)	(0.009)	(0.012)	(0.010)
$\gamma_3^{-}(\Delta\log Y_{it})^{-} * NC_i$	−0.0220*	−0.0177*	−0.0209*	−0.0159
	(0.011)	(0.009)	(0.012)	(0.010)
Constant	0.0122	0.0133*	0.0051	0.0096
	(0.010)	(0.008)	(0.010)	(0.008)
Observations	10830	10830	10830	10830
R-squared	0.003	0.005	0.004	0.006
Number of households	1083	1083	1083	1083

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Estimated test equation in panel a) $\log C_{it} = \phi_i + \nu_t + \beta_1^{+}\log Y_{it}^{+} + \beta_1^{-}\log Y_{it}^{-} + \sum_{k=1}^{3}\beta_2^{k+}\log Y_{it}^{+} SC_i^{k} + \sum_{k=1}^{3}\beta_2^{k-}\log Y_{it}^{-} SC_i^{k} + \beta_3^{+}\log Y_{it}^{+} NC_i + \beta_3^{-}\log Y_{it}^{-} NC_i + u_{it}$. Estimated test equation in panel b) $\Delta\log C_{it} = \phi_i + \nu_t + \gamma_1^{+}\Delta\log Y_{it}^{+} + \gamma_1^{-}\Delta\log Y_{it}^{-} + \sum_{k=1}^{3}\gamma_2^{k+}\Delta\log Y_{it}^{+} SC_i^{k} + \sum_{k=1}^{3}\gamma_2^{k-}\Delta\log Y_{it}^{-} SC_i^{k} + \gamma_3^{+}\Delta\log Y_{it}^{+} NC_i + \gamma_3^{-}\Delta\log Y_{it}^{-} NC_i + u_{it}$. The k types of social capital (SC_i^k) are: Social Networks (SN_i); Civic Participation (CP_i) and Neighbourhood Attachement (NA_i). NC represents number of household's components. Individual and time dummies included. Test performed is a standard test introduced by (e.g. Asdrubali et al. (1996)) (then extended as "conditional beta" test regression, among others, by Melitz and Zumer (1999)) with the novelty of social capital interaction variables and the possibility of asymmetric responses of consumption to income shocks. $\log Y_{it}^{+}$ and $\Delta\log Y_{it}^{+}$ represent positive shocks, income and income growth rate are multiplied by a dummy variable which takes value 1 in correspondence of a positive deviation of income from its long run component (computed using a time trend) and zero otherwise. The a_1 complement of the aforementioned dummy variable multiplied by income and the rate of growth of income gives the negative shock variables $\log Y_{it}^{-}$ and $\Delta\log Y_{it}^{-}$. C_{it}^{f} stands consumption of food, C_{it}^{fnd} stands for consumption of food plus other non durables.

Table 5: Idiosyncratic income volatility of individuals

VARIABLES	CV_i	CV_i^+	CV_i^-
SN_i	0.0085	0.0044	0.0072
	(0.009)	(0.007)	(0.006)
CP_i	−0.0149**	−0.0118**	−0.0090*
	(0.007)	(0.005)	(0.005)
NA_i	−0.0480**	−0.0355**	−0.0299*
	(0.024)	(0.018)	(0.016)
age	−0.0047***	−0.0036***	−0.0029***
	(0.002)	(0.001)	(0.001)
agesq	0.0001***	0.0000***	0.0000***
	(0.000)	(0.000)	(0.000)
No religion	−0.0173**	−0.0129**	−0.0107**
	(0.007)	(0.005)	(0.005)
Roman Catholic	−0.0088	−0.0055	−0.0063
	(0.007)	(0.005)	(0.005)
Christian (no denom.)	0.0184**	0.0128*	0.0133**
	(0.009)	(0.007)	(0.006)
White irish	0.0291*	0.0223*	0.0181*
	(0.017)	(0.012)	(0.011)
Other white	−0.0088	−0.0057	−0.0063
	(0.006)	(0.004)	(0.004)
Mixed black and white caribbean	−0.0367**	−0.0259**	−0.0250***
	(0.015)	(0.012)	(0.009)
Mixed black and white african	0.0650*	0.0509*	0.0387*
	(0.036)	(0.029)	(0.021)
Black/british caribbean	−0.0202*	−0.0154	−0.0124*
	(0.011)	(0.010)	(0.007)
Black/british African	−0.0506***	−0.0350***	−0.0347***
	(0.017)	(0.013)	(0.011)
Chinese	0.1352*	0.0734*	0.1121
	(0.079)	(0.040)	(0.069)
Unemployment spells	0.0042***	0.0028***	0.0032***
	(0.001)	(0.001)	(0.001)
Singles	−0.0135***	−0.0097**	−0.0090***
	(0.005)	(0.004)	(0.003)
Constant	0.1430***	0.1089***	0.0907***
	(0.036)	(0.027)	(0.024)
Test of Endogeneity	[0.0045]	[0.0008]	[0.0259]
Hansen's test of over identifying restrictions	[0.9767]	[0.9132]	[0.9937]
Observations	3183	3183	3183

*** $p<0.01$, ** $p<0.05$, * $p<0.1$. Standard errors in parentheses. p-values in squared parentheses. Estimated test equation $CV_i = \phi_0 + \sum_{k=1}^{3} \phi_{1k} SC_i^k + \mathbf{\Phi_2 Z_i}$.The k types of social capital (SC_i^k) are: Social Networks (SN_i); Civic Participation (CP_i) and Neighbourhood Attachement (NA_i. CV_i stands for Coefficient of Variation of the idiosyncratic component of income. Idiosyncratic income is computed following Pierucci and Ventura (2010) as the residual of the following regression $\log(y_{it}) = \widehat{\beta}\log(y_{at}) + e_{it}$, where $\log(y_{it})$ is individual's income and $\log(y_{at})$ is the average income of the reference group. This method guarantees orthogonality between aggregate and idiosyncratic components of income. CV_i^+ and CV_i^- represent the positive (over the mean) and the negative (below the mean) parts of the Coefficient of Variation. In the analysis reported in this table Scores for Social Networks (SN_i), Civic Participation (CP_i) and Neighbourhood Attachment (NA_i) are standardized. Instrumental variable regression was performed, instruments are: marital status, age, human capital (years of education) and the interaction of age and marital status as well as the interaction between age and human capital. For details on control variables and regressors, refer to data appendix.

Table 6: Unemployment spells-Poisson regression

	(1)	(2)	(3)	(4)
VARIABLES	Unempl. Spells	Unempl. Spells	Unempl. Spells	Unempl. Spells
SN_i	−0.0500∗∗∗	−0.0766∗∗∗	−0.0691∗∗∗	−0.0662∗∗∗
	(0.018)	(0.018)	(0.018)	(0.018)
CP_i	−0.6009∗∗∗	−0.4913∗∗∗	−0.4654∗∗∗	−0.4782∗∗∗
	(0.092)	(0.095)	(0.096)	(0.095)
NA_i	−0.0961∗∗∗	−0.0676∗∗∗	−0.0648∗∗∗	−0.0673∗∗∗
	(0.017)	(0.017)	(0.017)	(0.018)
Anglican			−0.2993∗∗∗	−0.2949∗∗∗
			(0.062)	(0.062)
Roman Catholic			−0.4133∗∗∗	−0.4219∗∗∗
			(0.115)	(0.115)
Baptist			0.6243∗	0.6464∗∗
			(0.322)	(0.322)
Christian (no denom)			−0.3342∗∗	−0.3297∗∗
			(0.159)	(0.159)
Muslim				0.7075∗∗
				(0.346)
Hindu				−1.7406∗∗∗
				(0.613)
Jewish			−1.9177∗	−1.8857∗
			(1.002)	(1.002)
Sikh			1.2471∗∗∗	
			(0.253)	
White British		−0.2440∗∗∗		
		(0.063)		
White Irish		−0.7509∗		
		(0.452)		
White Scottish		−0.2117∗		
		(0.113)		
Other White				0.3473∗∗∗
				(0.117)
Asian/British Indian				1.1327∗∗∗
				(0.213)
Asian/British Pakistani				−1.3913∗
				(0.789)
Black/British Caribbean		0.8395∗∗∗		1.0335∗∗∗
		(0.264)		(0.260)
Other Black		1.6640∗∗∗		1.8796∗∗∗
		(0.455)		(0.450)
Married		−0.6774∗∗∗	−0.7976∗∗∗	−0.7870∗∗∗
		(0.069)	(0.057)	(0.057)
Widow			−0.5692∗∗	−0.5453∗∗
			(0.252)	(0.252)
Never married		0.2030∗∗∗		
		(0.071)		
Degree and over		−0.5269∗∗∗	−0.4861∗∗∗	−0.5091∗∗∗
		(0.182)	(0.181)	(0.182)
Partner works		0.2385∗∗	0.2532∗∗∗	0.2445∗∗∗∗
		(0.095)	(0.095)	(0.095)
Permanent job		−1.0003∗∗∗	−0.9578∗∗∗	−0.9770∗∗∗
		(0.133)	(0.126)	(0.126)
Temporary job		0.3842∗∗	0.4648∗∗∗	0.4056∗∗
		(0.164)	(0.157)	(0.160)
Employee		0.6654∗∗∗	0.6570∗∗∗	0.6382∗∗∗
		(0.125)	(0.125)	(0.125)
Constant	−0.8231∗∗∗			
	(0.027)			
Observations	3183	3183	3183	3183

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses.SN_i, CP_i and NA_i stand for factors representing respectively the k aspects of Social Capital (SC_i^k): Social Networks, Civic Participation and Neighborhood Attachment. Dependent variable is given by numbers of unemployment spells occurred in the sample period. For details on dependent variable, control variables and regressors, refer to data appendix.

Table 7: Unemployment spells-Poisson regression with BHPS questions on social capital (items)

	(1)	(2)	(3)	(4)
VARIABLES	Unempl.Spells	Unempl. Spells	Unempl. Spells	Unempl. Spells
More than one who helps in a crisis	−0.3800***	−0.3228***	−0.3317***	−0.3481***
	(0.074)	(0.076)	(0.075)	(0.076)
More than one with whom to be totally yourself	−0.1946**	−0.2292***	−0.2825***	−0.2739***
	(0.078)	(0.079)	(0.078)	(0.079)
More than one who really appreciates you	0.1852**	0.2365***	0.2612***	0.2644***
	(0.088)	(0.090)	(0.090)	(0.090)
More than one who comforts you	0.2784***	0.2027**	0.2146**	0.2429***
	(0.082)	(0.083)	(0.083)	(0.084)
More than one outside household who helps you	−0.1328*	−0.2452***	−0.2194***	−0.2460***
	(0.079)	(0.080)	(0.080)	(0.080)
Participation in political party		0.5143*	0.5228*	
		(0.303)	(0.302)	
Participation in trade unions	−0.3847**	−0.5405***	−0.3931**	−0.4124**
	(0.160)	(0.172)	(0.161)	(0.161)
Participation in environmental group	0.4116**	0.4998***	0.4460**	0.5060***
	(0.187)	(0.192)	(0.192)	(0.187)
Participation in parents association	−0.6663***	−0.7071***	−0.8095***	−0.7457***
	(0.155)	(0.157)	(0.155)	(0.156)
Active in religious group	−0.2657**	−0.2074*		
	(0.104)	(0.107)		
Participation in social group	0.2702***	0.2680***	0.2628***	0.2518***
	(0.091)	(0.092)	(0.092)	(0.092)
Participation in sports club	−0.2538***	−0.2311***	−0.2162***	−0.2272***
	(0.074)	(0.075)	(0.074)	(0.075)
Participation in professional organization	−0.8924***	−0.8450***	−0.8693***	−0.8710***
	(0.197)	(0.199)	(0.198)	(0.199)
Participation in pensioner's organization			−1.6621*	
			(1.003)	
Participation in Scouts/guide groups	−0.6732**	−0.5108*		−0.4672*
	(0.280)	(0.282)		(0.282)
Belong to neighbourhood	−0.1452**			
	(0.066)			
Friends in neighbourhood mean a lot		−0.1283**	−0.1239*	−0.1172*
		(0.063)	(0.064)	(0.064)
Borrow and exchange favor with my neighbours	−0.1146**			
	(0.058)			
Improve my neighbourhood			0.1366*	0.1289*
			(0.074)	(0.074)
Would remain in the neighborhood	−0.3189***	−0.2175***	−0.2149***	−0.2164***
	(0.062)	(0.061)	(0.061)	(0.061)
Similar to other in the neghbourehood	−0.1829***	−0.1370**	−0.1401**	−0.1259**
	(0.060)	(0.061)	(0.061)	(0.061)
Regularly stop and talk with neighbours	0.2051***	0.1391**	0.1268*	0.1272*
	(0.066)	(0.066)	(0.067)	(0.067)
White british		−0.3319***		
		(0.093)		
White Irish		−0.7879*		
		(0.458)		
White Welsh		−0.2828*		
		(0.164)		
White Scottish		−0.3550***		
		(0.135)		
Other White				0.2968**
				(0.118)
Asian/British Indian				1.0241***
				(0.215)
Black/British Caribbean		0.8319***		1.0417***
		(0.275)		(0.263)
Other Black		1.6152***		
		(0.497)		
Anglican			−0.3445***	−0.3304***
			(0.064)	(0.064)
Roman Catholic			−0.4452***	−0.4498***
			(0.116)	(0.116)
Christian (no denom)			−0.3993**	−0.3782**
			(0.160)	(0.160)
Hindu				−1.7568***
				(0.615)
Jewish			−2.0209**	−2.0117**
			(1.003)	(1.003)
Sikh			1.1133***	
			(0.258)	
Employee		0.6879***	1.0283***	1.0341***
		(0.125)	(0.143)	(0.143)
self employed			0.3614**	0.3749**
			(0.170)	(0.170)
Partner works		0.2026**	0.2168**	−0.6364***
		(0.096)	(0.096)	(0.099)
Partner does not work				−0.8571***
				(0.066)
Permanent job		−1.0333***	−1.4114***	−1.4053***
		(0.138)	(0.130)	(0.130)
Temporary job		0.3548**		
		(0.170)		
Married		−0.8525***	−0.8109***	
		(0.066)	(0.059)	
Separated or Divorced		−0.1435*		−0.1407*
		(0.079)		(0.079)
Widow		−0.8119***	−0.7493***	−0.8046***
		(0.257)	(0.254)	(0.256)
Degree and over		−0.4465**	−0.4645**	−0.4960***
		(0.183)	(0.183)	(0.183)
Constant	−0.1700*	0.8929***	0.5801***	0.6009***
	(0.088)	(0.139)	(0.116)	(0.120)
Observations	3183	3183	3183	3183

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Dependent variables is given by numbers of unemployment spells occurred in the sample period. For details on dependent variable, control variables and regressors (survey questions on social capital), refer to data appendix.

Table 8: Occurrence of unemployment-Probit estimation

panel a) Probit regression with social capital variables		
VARIABLES	ever unemployed	ever unemployed
SN_i	−0.0034	−0.0095*
	(0.005)	(0.005)
CP_i	−0.0993***	−0.0828***
	(0.023)	(0.023)
NA_i	−0.0197***	−0.0143***
	(0.005)	(0.005)
Black/British Caribbean		0.3515**
		(0.161)
Married		−0.1076***
		(0.022)
Singles		0.0568**
		(0.025)
Employee		0.0839***
		(0.025)
Permanent job		−0.1338***
		(0.034)
Observations	3183	3183
R-squared	0.0129	0.0452

panel b) Probit regression with BHPS questions on social capital (items)		
VARIABLES	ever unemployed	ever unemployed
More than one who helps in a crisis	−0.0526***	−0.0428**
	(0.018)	(0.017)
Participation in Trade Unions	−0.0727**	−0.0629*
	(0.036)	(0.036)
Participation in parents association	−0.0759***	−0.0804***
	(0.029)	(0.029)
Participation in sports club	−0.0420**	−0.0363**
	(0.018)	(0.018)
Participation in professional organization	−0.1129***	−0.1097***
	(0.033)	(0.033)
Would remain in the neighbourhood	−0.0455**	−0.0664***
	(0.018)	(0.018)
Similar to other in the neighbourhood	−0.0264*	−0.0356**
	(0.016)	(0.016)
Black/British Caribbean	0.4314***	
	(0.162)	
Singles	0.1491***	
	(0.02)	
Temporary job	0.1589***	
	(0.062)	
Observations	3183	3184
R-squared	0.0425	0.0203

*** p<0.01, ** p<0.05, * p<0.1. Marginal effects reported. Standard errors in parentheses. Dependent variable is a dummy which takes value 1 if one has never experienced at least one unemployment spell in the sample period and zero otherwise. This variable is calculated from the "unemployment spells variable". For details on dependent variable, control variables and regressors (survey questions on social capital), refer to data appendix.