DIPARTIMENTO DI METODI E MODELLI
PER L'ECONOMIA IL TERRITORIO E LA FINANZA
MEMOTEF

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Perception of poverty . Individual, household and social enviromental determinants.

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1. Introduction

The poverty line approach is certainly the most widely used method to attain quantitative assessment of poverty in both developed and developing countries (Glewwe and van der Gaag, 1990; Rio Group, 2006). According to this approach a household—the unit generally considered— is classified as poor if its resources (income or expenditure) are less than the value of a given poverty line. The poverty line is a normative concept as it represents the aggregate value of all the goods and services considered necessary to satisfy the unit's basic needs.

The poverty line can be identified following three approaches that are based respectively on the concepts of absolute poverty, relative poverty and subjective poverty.

According to the first approach the poverty line identifies the amount of money needed to acquire the goods and services that satisfy given absolute minima standards for each of the basic needs. The absolute poverty line approach has been successfully used to identify the poverty line since the early 1900s (Booth, 1892; Rowntree, 1901) and still represents the theoretical foundation of the official poverty line in the United States of America (Orshansky , 1965; see for details http://aspe.hhs.gov/poverty/09poverty.html).

According to the relative poverty line approach, a household is poor if it satisfies needs in a significantly unacceptable way relative to what is usual in society. Therefore, poverty is a matter of distance from the average standard of living in society. The point was well highlighted by Adam Smith (1812) in his discussion of the concept of "necessaries" in *The Wealth of Nations*

> *By necessaries I understand not only the commodities which are indispensably necessary for the support of life but*

whatever the custom of the country renders it indecent for creditable people even of the lowest order to be without.

Hence, the relative poverty line is usually identified as a proportion of the mean or median income or expenditure of the whole population .

Finally , the subjective poverty approach differs from the previous two in that it defines the poverty threshold on the basis of people's perceptions, collected from a representative sample of the population, of what represents the minimum resources necessary to satisfy household needs (Coudouel et al.,2002; Rio Group, 2006) [1].

In the analysis of the poverty concept, historical development can certainly help to understand when each of the above-mentioned approaches can be appropriately used although a consensus has not yet been reached (Ravallion, 1998; Coudouel et. al., 2002; Rio Group, 2006) as it is universally recognized that each approach allows us to capture different aspects of a phenomenon which is as complex and multidimensional as poverty (Glewwe and van der Gaag, 1990; Atkinson, 1991; Bourgignon, 1999). This is the reason why in Italy as in the majority of developed countries there is a wide and diversified production of poverty statistics based on the three different approaches, although it may lead to an ambiguous knowledge about the actual poverty status of the population. As a matter of fact each approach can recognize different groups of poor people within a population and therefore suggest different poverty reduction policies. For instance, in Italy, the percentage of poor households grows if one moves from the estimate based on a concept of absolute

[1]The issue of subjective poverty is part of a larger field of analysis on the subjective perception of well-being which according to Diener et al. (1999) is *a broad category of phenomena that include people's emotional responses, domain satisfactions and global judgments of life satisfaction*. The term "economics of happiness" is used on occasion to refer to these studies, which focus on aspects of life satisfaction and how the different domains of life, including social capital, affect general well-being (Diener et al. , 1985; Frey and Stutzer, 2000, 2002a, 2002b; Pradhan and Ravallion ,2000 ; McBride , 2001 ; Rojas, 2005; van Praag et al., 2003; Yip et al. , 2007). These subjects are not treated here as we focus exclusively on the subjective poverty line.

poverty, to one based on the concept of relative poverty and finally to the one obtained on the basis of individual perceptions. Indeed, in Italy, according to recent estimates, 4.1% of households live below the absolute poverty line (Istat, 2009a), 11% of households live in relative poverty (Istat, 2008a; Istat, 2009b) and 17% of households report making ends meet with great difficulty. The subjective poverty rate shows a trend growth greater than the relative and the absolute ones. Moreover, the subjective poverty rate may even reach a 60 % value if we consider poor those households who make ends meet each month at least with some difficulties (Istat, 2008b). On the other hand, a subjective poverty line is, generally, higher than both the relative and the absolute poverty line as individual perception of poverty depends to a large degree not only on absolute income but also on a variety of economic (relative income), cultural (different lifestyles), social (a different perception of the cost of living), psychological (people's attitudes and expectations) and health (household members' personal health) factors. As a matter of fact, as Easterlin (1995) points out , *raising the incomes of all does not increase the happiness of all because the positive effect of higher income on SWB is offset by the negative effect of higher living level norms brought about by the growth in incomes generally*.

The subjective approach has the great advantage of overcoming the distortions arising from objective approaches where outside observers arbitrarily assess household standard of living. As a matter of fact, there is an inherent subjectivity and social specificity to any notion of individual basic/ nutritional needs and of relative poverty. Several empirical studies (Runciman, 1966; Easterlin, 1974; Stigler and Becker, 1977; Kapteyn, 1980) have in fact revealed that individual preferences and thus the self-perception of well-being may vary according to the role people play in the community where they live. As noted by Scitovsky (1978) *the dividing line between necessities and luxuries turns*

out to be not objective and immutable but socially determined and ever changing.

Hence , as clearly shown by Sen (1985)[2] the self- perception of well-being can be affected by household economic situation, by individual socio-economic characteristics (i.e. sex, age, health and employment status, and so on) and by the quality of the context in which households live (i.e. personal safety and freedom, social networks, economic opportunities, and so on) . On the contrary the absolute and relative poverty line approaches rely only on some concept of income and / or consumption.

Several empirical studies have shown how and to what extent the self-perception of well-being is influenced by household size and composition , by available household resources (van Praag and Van der Sar, 1988) , by household income trajectories and aspirations , by the level of income of a reference group (Ravaillon and Lokshin, 2002; Castilla, 2010), by respondent and household socio-economic characteristics (i.e. sex, age, employment status, educational qualification, home ownership, the area of residence and so on - Ravaillon and Lokshin , 2002; Stanovnik and Verbic, 2004; Istat, 2008b; Isae , 2009).

Limited attention has been, instead, devoted to the analysis of the relationships between the subjective poverty line and the quality of the context in which households live, well-synthesized in social capital endowment of household area of residence[3]. As a matter of fact, according to the definition

[2]*Within the general notion of the living standard, divergent and rival views of the goodness of life co-exist in an unsorted bundle. There are many fundamentally different ways of seeing the quality of living, and quite a few of them have some immediate plausibility. You could be well off without being well. You could be well without being able to lead the life you wanted. You could have got the life you wanted without being happy. You could be happy without having much freedom. You could have a good deal of freedom without achieving much.*

[3]Empirical research has, so far, specifically focused attention on the links between self-assessment of life satisfaction rather than subjective poverty line (see footnote 1) and individual level measures of social capital measured using indicators of social and political participation (member of political, religious, social associations) , of vulnerability (victim of crime or of corruption), of trust , of governance quality, of relationships (marriage, contact with friends, colleagues) (Helliwell and Putnam , 2004 ;Herrera et al.,

suggested by the *World Bank Social Capital Initiative Program* research group (Grootaert and van Bastelaer, 2001 and 2002) social capital *includes the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development.* This definition synthesises the different points of view which simultaneously involve economic, social and political aspects [Coleman (1988,1990) ; Putnam (1993a,b) ; Olson (1982) and North (1990)] and imply that socio-institutional relationships can foster economic development and improve both the quality of the territorial context where households live and the welfare of the whole population (Santini, 2008).

More specifically, according to Arrow's point of view, (2000), social capital can be assimilated with those environmental, social and economic factors which link economic agents and which, according to their characteristics, improve or hinder the territorial context where the population lives.

While there seems to be widespread consensus on the importance of social capital in the development of nations (Putnam ,1993; Helliwell and Putnam, 1995 ; Mauro, 1995; Helliwell ,1996a and 1996b; Knack and Keefer, 1997; Narayan and Pritchett, 1997; Knack , 2001; Cainelli and Rizzitiello, 2003) the same cannot be said for the way social capital exerts influence on the subjective poverty line .

Interest in this type of problem arises from the need to highlight to what extent subjective perception of well-being depends on individual and household socio-economic characteristics and to what extent it depends on the features of the local context of where households live. Such evidence would help to identify household well-being risk factors and those economic and social goals which should receive more attention by current policies. As a matter of fact these policies can enhance household well-being not only through traditional income support measures but also facilitating or supporting the development of

2006; Yip et. al. , 2007; Bjørnskov et. al. , 2008; Hooghe and Vanhoutte, 2009 ; Helliwell et. al., 2009).

the desirable forms of social capital in the areas where households live (i.e. social networks and connections which cross boundaries of social class, ethnicity and gender and which strengthen mutual trust[4]; voluntary initiatives and so on)[5].

Taking these observations into account, this paper aims at answering the following questions:

i) To what extent is subjective well-being affected in Italy by the respondent/household socio-economic characteristics and by the social capital endowment of the household area of residence?

ii) Which of the social capital components has a higher impact on subjective well-being and can be regarded as a primary risk factor in household poverty status?

2. Data and methodology

This analysis of subjective well-being determinants is based on the data taken from the Survey on Household Income and Wealth (SHIW) of the Bank of Italy.

[4] *In an environment of trust, individuals assume that others are benevolent and do not rely on expensive safeguard or complicated contracts to support their economic and social ventures. By contrast where general trust levels are low, individual risk greater personal losses and being labelled brainless dupes, if they do not play it safe* (Helliwell ,2001).

[5] As a matter of fact some forms of social capital are undesirable – notably that involved when people co-operate for anti-social purposes.

The Survey on Household Income and Wealth (SHIW) began in the 1960s with the aim of gathering data on the incomes and savings of Italian households. Over the years, the scope of the survey has grown and now includes detailed information about household members as well as wealth and other aspects of household economic and financial behaviour such as, for example, satisfaction and work, consumption and payment methods used.

The sample treated in the most recent surveys comprises about 8,000 households (24,000 individuals), distributed over about 300 Italian municipalities and in order to facilitate the analysis of changes in the phenomena being investigated, part of it comprises households interviewed in previous surveys (panel households).

In particular, the analysis of subjective well-being is based on the following question:

Can you make ends meet each month with the actual net income of your household

- with great difficulty	1
- with difficulty,	2
- with some difficulty,	3
- rather easily	4
- easily	5
- very easily	6

The *ordered probit model* is used to analyse answers to this question viewed as resulting from a continuous, unobserved welfare index $\tilde{y}$, linear function of a set of explanatory variables**,** with parameter vector $\boldsymbol{\beta}$ and an error term ε distributed as N(0,1) : $\tilde{y} = \boldsymbol{\beta}'\boldsymbol{x} + \varepsilon$. The explanatory variables $\boldsymbol{x}$ are grouped as following (Table 1):

1. Respondent's[6] socio-economic characteristics taken from the 2006 Survey on Household Income and Wealth (SHIW) of the Bank of Italy.

2. Household socio-economic characteristics, taken from the 2006 Survey on Household Income and Wealth (SHIW) of the Bank of Italy.

[6]The respondent is the head of household, i.e. the person responsible for the household budget.

3. Social capital endowment of household region of residence, estimated applying the methodology in Santini (2008). The estimate was made at the regional level since the Survey on Household Income and Wealth (SHIW) of the Bank of Italy sample is selected in a way that geographical breakdown is statistically significant up to regional level. The proxy variables selected are indicators of the level of

– Social Behaviour (SB) .

– Social Relationships (SR) .

– Social Engagement (SE) .

– Civic Responsibility (CR).

- some specific territorial characteristics of Italian regions.

The measures were designed based on the rationale given below:

• Rate of organised crime, rate of mafia and criminal association, rate of common crime, rate of violent crime and that related to fraud are the proxy indicators of those characteristics of the Italian territorial context which hinder the development of economic and social cooperative behaviour. Likewise, indicator *Number of protests per 10,000 inhabitants* measures a negative feature of the social environment: the higher they are, the more they reduce trust as far as economic transactional obligations are concerned.

• Two measures of Culture have been selected as proxy indicators of SR (*Number of performances per 100,000 inhabitants* and *Number of days of cinema shows per 100,000 inhabitants*). Cultural events can be an opportunity for the creation of SR and mutual trust. Lack of SR and of mutual trust is measured by the variable *Number of suicides and suicide attempts per 100,000 inhabitants.*

• A set of indicators relevant to participation of people to non-profit institutions and their spread in regional territory have been selected as measures of social engagement, that is of solidarity in small homogenous groups.

• A set of variables relevant to political participation through different forms of vote and the *Number of television subscriptions per 100 families* (to be interpreted as a measure of sense of civic duty toward institutions) have been selected as proxy indicators of CR.
• Finally, a set of territorial and demographic variables have been selected (i.e., the rate of urbanisation and the rate of territorial attraction) as they are significant determinants of social capital formation (Loopmans, 2001; Glaeser et al., 2002). A higher urbanisation rate should encourage social and economic networking , though , sometimes, with negative consequences on the quality of neighbouring behaviour. Higher rate of territorial attraction should, instead, be a symptom of greater and better social and economic opportunities.

The indicators selected within each of the five categories have been pulled together into five comprehensive indexes through a simple arithmetic mean, hypothesising that they are perfectly and mutual replaceable as they measure different aspects of the same phenomenon. The five category indexes have been pulled together through a simple geometric mean as it implies a lower interchangeability of categories. The result is an overall social capital index.

Table 1 Indicators[7]	
a. Respondent's socio-economic characteristics	
Age *(ln Age)*	
Sex	1 Male 2 Female
Marital Status	1 Married 2 Single 3 Separated/Divorced 4 Widowed
Educational qualification	1 None 2 Primary school 3 Lower secondary school 4 Upper secondary school 5 University degree /Postgraduate qualification
Employment status	1 Blue-collar worker or similar 2 Office worker 3 Manager 4 Self-employed worker 5 Contingent worker on own account 6 Retired 7 Unemployed 8 Other non employed
Branch of activity	1 Agriculture 2 Industry 3 General government 4 Other (commerce, crafts, other services, etc.) 5 None
Citizenship	1 Italian 2 Foreigner
b. Household characteristics	
Household size (*lnNCOMP*)	
Household type	1 Single person under 65 years old 2 Single person 65 years and over 3 Single woman 4 Single man 5 Two adults at least one person 65 years and over 6 Two adults both under 65 years 7 Single parent and one or more dependent children 8 Two adults and one dependent child 9 Two adults and two dependent children 10 Two adults and three dependent children
% Unemployed	
% Retired	
% Over 80 years old	
House/flat : sq.m. per household member	
Principal residence by tenure	1 Owned by the household 2 Rented or sublet 3 occupied under redemption agreement 4 occupied in usufruct 5 occupied free of charge
House/flat location	1 isolated area, countryside 2 outskirts of town 3 between outskirts and centre 4 centre 5 other 6 village
Household net disposable income (*ln Y*) (*)	
Household net wealth (**)	1 1st quintile 2 2nd quintile 3 3rd quintile 4 4th quintile 5 5th quintile
Debts: purchase/renovation buildings	1 Yes 2 No
Debts : purchase of tangible goods (jewellery, gold,	1 Yes

[7] All the categorical variables have been transformed in a set of dummy variables .

etc.)	2 No
Debts : purchase of motor vehicles	1 Yes 2 No
Debts : purchase of furniture, household appliances, etc.	1 Yes 2 No
Debts : purchase of non-durable goods	1 Yes 2 No
At least one household member has received	
Unemployment benefits of any kind (CIG, mobility list, ordinary unemployment)	1 Yes 2 No
Severance pay (including advances)	1 Yes 2 No
Any type of financial support from public or private bodies	1 Yes 2 No
Scholarships, gifts/cash from relatives or friends not living in the house, alimony or other income	1 Yes 2 No
Geographical area	1 North 2 Centre 3 South and Islands
Size of the municipality of residence	0 Up to 20,000 inhabitants 1 20,000-40,000 inhabitants 2 40,000-500.000 inhabitants 3 More than 500,000 inhabitants
c. Social capital	
SOCIAL CAPITAL	
Social Behaviour (SB)	
Social Relationships (SR)	
Social Engagement (SE)	
Civic Responsibility (CR)	
Territorial Characteristics (TC)	
(*) Net disposable income = Payroll income + Pensions and net transfers + Net self-employment income + Property income . (**) Net wealth = Real assets + Financial assets – Financial liabilities . Household net wealth might better pick up permanent income .	

3. Results

Subjective well-being determinants have been identified by estimating three different models:

- Model 1 estimates how respondent and household socio-economic characteristics affect the perception of well-being ;

- Model 2 evaluates the extent to which both the respondent/household socio-economic characteristics and the social capital endowment of household region of residence affect the perception of well-being;

- Model 3 explores the extent to which social capital components affect subjective well-being in addition to respondent and household socio-economic characteristics.

Table 2 reports the coefficients and their statistical significance while Tables 3, 4 and 5[8] report the marginal effects of explanatory variables respectively with reference to Model 1, Model 2 and Model 3.

[8] Interpretation of the coefficients in a ordered probit model requires attention. As a matter of fact, neither the signs nor the magnitudes of the coefficients are completely informative in the ordered probit model in a way that their direct interpretation can be fundamentally ambiguous . Increases in a variable with a positive coefficient will increase the probability in the highest cell and decrease the probability in the lowest cell. But what happens to the middle cells is uncertain. This is the reason why it is necessary to compute the marginal effects of explanatory variables in order to interpret the model meaningfully. The partial effects give the impact on the specific probabilities per unit change in the regressor (Greene, 2002; Greene and Hensher, 2009). The marginal effect of each variable is computed as the conditional probability at means of all other variables. The effect of a dummy variable can be analyzed by comparing the probabilities that result when the variable takes its two different values with those that occur with the other variables held at their sample means.

Table 2 Ordered probit models(*)			
	Model 1. Coefficients (p>|z|)	Model 2. Coefficients (p>|z|)	Model 3. Coefficients (p>|z|)
a. Respondent's socio-economic characteristics			
Age (*ln Age*)	0,202 (0,001)	0,218 (0,000)	0,218 (0,000)
Marital status : Separated/divorced	-0,195 (0,000)	-0,208 (0,000)	-0,210 (0,000)
Educational qualification : Primary school	0,296 (0,000)	0,269 (0,000)	0,275 (0,000)
Educational qualification: Lower secondary school	0,411 (0,000)	0,382 (0,000)	0,388 (0,000)
Educational qualification: Upper secondary school	0,563 (0,000)	0,538 (0,000)	0,542 (0,000)
Educational qualification: University degree /Postgraduate qualification	0,845 (0,000)	0,826 (0,000)	0,831 (0,000)
Employment status: manager	0,313 (0,000)	0,314 (0,000)	0,312 (0,000)
Employment status: Self-employed worker	0,341 (0,000)	0,344 (0,000)	0,343 (0,000)
Employment status: unemployed	-0,255 (0,001)	-0,238 (0,002)	-0,244 (0,002)
b. Household socio-economic characteristics			
Household size (*lnNCOMP*)	-0,518 (0,000)	-0,476 (0,000)	-0,475 (0,000)
Household composition: Single person under 65 years old	-0,165 (0,003)	-0,165 (0,005)	-0,168 (0,004)
Household composition: Two adults both under 65 years	0,161 (0,000)	0,165 (0,000)	0,166 (0,000)
Household composition: Two adults and one dependent child	0,140 (0,001)	0,133 (0,002)	0,131 (0,002)
Household composition: Two adults and two dependent children	0,140 (0,002)	0,136 (0,003)	0,135 (0,003)
House/flat : sq.m. per household member (*100)	0,117 (0,021)	0,134 (0,009)	0,139 (0,007)
Household net disposable income (*ln Y*)	1,029 (0,000)	0,998 (0,000)	0,998 (0,000)
Household net wealth : 1st quintile	-0,177 (0,000)	-0,181 (0,000)	-0,185 (0,000)
Household net wealth : 4th quintile	0,120 (0,001)	0,115 (0,001)	0,114 (0,001)
Household net wealth : 5th quintile	0,113 (0,005)	0,108 (0,008)	0,104 (0,011)
Debts : purchase of non-durable goods (Yes)	-0,481 (0,000)	-0,485 (0,000)	-0,480 (0,001)
Size of the municipality of residence: more than 500,000 inhabitants	-0,159 (0,000)	-0,141 (0,000)	-0,164 (0,000)
Size of the municipality of residence: up to 20,000 inhabitants	0,067 (0,012)	0,057 (0,031)	0,057 (0,032)
c. Social capital			
Social Capital (SC)		0,538 (0,000)	
Social Relationships (SR)			0,415 (0,001)
Social Engagement (SE)			0,225 (0,009)
Goodness of Fit			
- 2 Log likelihood	20536	20167	20164
χ^2 (**)	4144 (0,000)	4167 (0,000)	4169 (0,000)

(*)*Test of parallel lines* : the null hypothesis , which states that the location parameters (slope coefficients) are the same across response categories, is not rejected .
(**)The null hypothesis states that the model without predictor is as good as the model with the predictors.

As far as respondent and household socio-economic characteristics are concerned , all estimated coefficients have the expected signs and fairly stable values in the three models .

From among individual characteristics , age , education, marital and employment status affect the self-perception of well-being . In particular , the self-perception of well- being is enhanced when the respondent has a high educational qualification , is a manager or a self employed worker . However, part of the relation between education , employment status and subjective well-being is probably due to their covariation with income. The divorced[9] and unemployment status of the respondent lowers self-perception of well-being[10] , though the household percentage of unemployed seems not to exert any effect . Respondent's unemployment exerts a strongly negative influence on individual well-being that cannot be alleviated to any substantial degree by social security grants [11] .

Respondent's age is statistically significant : this result shows that the stage of the life cycle might also be relevant to self-rated well-being. On the contrary, gender , citizenship and branch of activity seem not to exert any influence on self-perception of well-being.

As far as household socio-economic characteristics are concerned , disposable net income is the independent variable which has the strongest explanatory power thus confirming the results of previous econometric analysis (Herrera et al., 2006). In particular, low net disposable income and wealth as well as debts for purchasing non-durable goods reduce subjective well-being .

[9] National and regional surveys conducted in several countries have shown a positive relation between marriage and subjective well-being : the large scale surveys reveal that self-perception of well being enhances if people are married (or cohabit with a partner) and lowers if people are divorced , separated or widowed (Ravaillon and Lokshin, 2002) .One possible interpretation is that divorced /separated or widowed respondents feel less economically secure than married people.

[10]The negative implications of unemployment on subjective well-being have been well documented in psychology and socio-economic literature (Ravaillon and Lokshin, 2002). In particular , unemployed individuals may be discouraged about their current situation and future prospects and may, hence, feel worse off than employed individuals other conditions being equal .

[11]As a matter of fact the variable *At least one household member has received unemployment benefits of any kind (CIG, mobility list, ordinary unemployment)* isn't statistically significant .

Moreover, household size growth lowers the self-perception of well-being though one-person households under 65 years have a lower self-evaluation of their economic welfare than households of two adults both under 65 years, with or without dependent children.

Living in small towns (< 20.000 inhabitants) raises the self-perception of well-being , mainly because households directly experience the economic and social advantages which they offer. As a matter of fact, Royal and Rossi (1996) observed that there are negative consequences of increasing urbanization on the quality of neighbourhood community life, including neighbouring behaviour, which involve exchange of social support (personal/emotional; functional/instrumental; informational).

Such evidence suggests that social connections , including marriage, are among the robust correlates of subjective well-being . But social connections, that is networks and norms of reciprocity and trust, represent one, but not the only one, dimension of social capital. Then, how does social capital , regarded as a multidimensional concept, exert influence on subjective well-being ?

The statistical significance and positive signs of the variable Social Capital (Model 2) and of two of its dimensions , that is Social Relationships and Social Engagement (Model 3), show how environmental factors affect subjective well-being. Table 2 and Tables 4 and 5 show the coefficients and the marginal effects of the extended models . The variables Social Capital (Model 2) , Social Relationships and Social Engagement (Model 3) greatly improve the explanatory power of Model 1 as indicated by the fact that the – 2 log likelihood significantly decreases (Table 2).

The growth of social capital endowment in household region of residence rises the self-perception of well-being . As a matter of fact , social capital leads to a better functioning and a more liveable society and societies with high levels of social capital may provide individuals with self-confidence and social support (Putnam, 2000 ; OECD, 2001) . Both formal networks, through jobs

and participation in associations , and informal networks between friends and neighbours, through the exchange of social support, are supposed to have a positive influence on community life and therefore on subjective well-being. . Social networks and relationships of trust in the society have , then, the greatest influence on the perception of well-being .

More than a century ago Mill (1848, p. 131) remarked

> *The advantage to mankind of being able to trust one another, penetrates into every crevice and cranny of human life: the economical is perhaps the smallest part of it, yet even this is incalculable.*

and Helliwell and Putnam (2004) remarked:

> *Social networks have value to people in the networks […] . But they also have 'externalities', that is, effects on bystanders. Dense social networks in a neighbourhood—neighbourhood associations, etc.—can deter crime, for example, even benefiting neighbours who do not belong to the associations.*

The social capital components Social behaviour (SB) ,Civic Responsibility (CR) and Territorial Characteristics (TC) do not seem to affect the self-perception of well-being. Actually this result appears to be due not so much to a complete lack of link with self-perception of well-being but rather to the following reasons :

- social capital and its components have been estimated at regional level and specific effects of phenomena as complex as social behaviour cannot easily be detected.
- the effect exerted by Social behaviour (SB) ,Civic Responsibility (CR) and Territorial Characteristics (TC) is already explained, at least in part, by the components Social Relationships and Social Engagement . Indeed, regions where relationships of trust develop easily are also generally characterized by high levels of civic responsibility and by model behaviour.

Table. 3 *Marginal effects (Model 1)*

	With great difficulty	*With difficulty*	*With some difficulty*	*Rather easily*	*Easily*	*Very easily*
a. Respondent's socio-economic characteristics						
Age (*ln Age*)	-0,0114	-0,0251	-0,0437	0,0380	0,0320	0,0102
Marital status : Separated/divorced	0,0093	0,0223	0,0448	-0,0317	-0,0330	-0,0117
Educational qualification : Primary school	-0,0195	-0,0393	-0,0589	0,0612	0,0437	0,0129
Educational qualification: Lower secondary school	-0,0278	-0,0548	-0,0800	0,0851	0,0598	0,0177
Educational qualification: Upper secondary school	-0,0398	-0,0757	-0,1063	0,1170	0,0808	0,0240
Educational qualification: University degree /Postgraduate qualification	-0,0925	-0,1279	-0,0985	0,2026	0,0935	0,0227
Employment status: manager	-0,0233	-0,0437	-0,0573	0,0692	0,0432	0,0119
Employment status: self-employed worker	-0,0251	-0,0473	-0,0631	0,0748	0,0475	0,0132
Employment status: unemployed	0,0113	0,0281	0,0594	-0,0384	-0,0440	-0,0163
b. Household socio-economic characteristics						
Household size (*lnNCOMP*)	0,0291	0,0645	0,1121	-0,0976	-0,0820	-0,0261
Household composition: Single person under 65 years old	0,0086	0,0204	0,0396	-0,0294	-0,0292	-0,0101
Household composition: Two adults both under 65 years	-0,0102	-0,0211	-0,0326	0,0329	0,0240	0,0071
Household composition: Two adults and one dependent child	-0,0088	-0,0183	-0,0288	0,0283	0,0212	0,0064
Household composition: Two adults and two dependent children	-0,0088	-0,0183	-0,0287	0,0283	0,0211	0,0063
House/flat : sq.m. per household member (*100)	-0,0066	-0,0146	-0,0253	0,0221	0,0185	0,0059
Household net disposable income (*ln Y*)	-0,0578	-0,1279	-0,2223	0,1936	0,1626	0,0518
Household net wealth : 1st quintile	0,0090	0,0209	0,0398	-0,0306	-0,0292	-0,0099
Household net wealth : 4th quintile	-0,0072	-0,0154	-0,0250	0,0237	0,0183	0,0056
Household net wealth : 5th quintile	-0,0068	-0,0145	-0,0236	0,0223	0,0173	0,0053
Debts : purchase of non-durable goods (Yes)	0,0171	0,0464	0,1160	-0,0520	-0,0885	-0,0389
Size of the municipality of residence: more than 500,000 inhabitants	0,0074	0,0173	0,0330	-0,0252	-0,0242	-0,0083
Size of the municipality of residence: up to 20,000 inhabitants	-0,0036	-0,0080	-0,0139	0,0122	0,0102	0,0032
c. Social capital						
Social Capital (SC)	-	-	-	-	-	-
Social Relationships (SR)	-	-	-	-	-	-
Social Engagement (SE)	-	-	-	-	-	-

Table . 4 *Marginal effects (Model 2)*

	With great difficulty	*With difficulty*	*With some difficulty*	*Rather easily*	*Easily*	*Very easily*
a. Respondent's socio-economic characteristics						
Age (*ln Age*)	-0,0136	-0,0285	-0,0449	0,0444	0,0328	0,0098
Marital status : Separated/divorced	0,0109	0,0250	0,0461	-0,0371	-0,0338	-0,0113
Educational qualification : Primary school	-0,0193	-0,0371	-0,0507	0,0588	0,0378	0,0105
Educational qualification: Lower secondary school	-0,0281	-0,0530	-0,0702	0,0837	0,0529	0,0148
Educational qualification: Upper secondary school	-0,0413	-0,0751	-0,0954	0,1181	0,0732	0,0205
Educational qualification: University degree /Postgraduate qualification	-0,0967	-0,1274	-0,0842	0,2025	0,0860	0,0198
Employment status: manager	-0,0257	-0,0455	-0,0529	0,0728	0,0407	0,0105
Employment status: self-employed worker	-0,0279	-0,0497	-0,0587	0,0794	0,0451	0,0118
Employment status: unemployed	0,0120	0,0280	0,0535	-0,0408	-0,0393	-0,0135
b. Household socio-economic characteristics						
Household size (*lnNCOMP*)	0,0296	0,0622	0,0977	-0,0967	-0,0715	-0,0214
Household composition: Single person under 65 years old	0,0091	0,0203	0,0358	-0,0306	-0,0262	-0,0085
Household composition: Two adults both under 65 years	-0,0116	-0,0226	-0,0313	0,0359	0,0232	0,0065
Household composition: Two adults and one dependent child	-0,0091	-0,0181	-0,0257	0,0285	0,0190	0,0054
Household composition: Two adults and two dependent children	-0,0094	-0,0185	-0,0263	0,0293	0,0194	0,0055
House/flat : sq.m. per household member (*100)	-0,0084	-0,0176	-0,0276	0,0273	0,0202	0,0060
Household net disposable income (*ln Y*)	-0,0622	-0,1305	-0,2050	0,2030	0,1499	0,0448
Household net wealth : 1st quintile	0,0102	0,0226	0,0390	-0,0342	-0,0285	-0,0091
Household net wealth : 4th quintile	-0,0077	-0,0155	-0,0227	0,0244	0,0167	0,0048
Household net wealth : 5th quintile	-0,0072	-0,0145	-0,0213	0,0228	0,0157	0,0045
Debts : purchase of non-durable goods (Yes)	0,0192	0,0498	0,1151	-0,0617	-0,0866	-0,0357
Size of the municipality of residence: more than 500,000 inhabitants	0,0079	0,0176	0,0304	-0,0266	-0,0222	-0,0071
Size of the municipality of residence: up to 20,000 inhabitants	-0,0036	-0,0075	-0,0117	0,0116	0,0086	0,0026
c. Social capital						
Social Capital (SC)	-0,0335	-0,0703	-0,1105	0,1094	0,0808	0,0242
Social Relationships (SR)	-	-	-	-	-	-
Social Engagement (SE)	-	-	-	-	-	-

Tab. 5 *Marginal effects (Model 3)*

	With great difficulty	*With difficulty*	*With some difficulty*	*Rather easily*	*Easily*	*Very easily*
a. Respondent's socio-economic characteristics						
Age (*ln Age*)	-0,0139	-0,0288	-0,0441	0,0450	0,0323	0,0095
Marital status : Separated/divorced	0,0113	0,0256	0,0460	-0,0381	-0,0337	-0,0111
Educational qualification : Primary school	-0,0202	-0,0384	-0,0507	0,0608	0,0380	0,0104
Educational qualification: Lower secondary school	-0,0292	-0,0544	-0,0699	0,0860	0,0529	0,0145
Educational qualification: Upper secondary school	-0,0426	-0,0765	-0,0941	0,1204	0,0727	0,0201
Educational qualification: University degree /Postgraduate qualification	-0,0994	-0,1288	-0,0806	0,2046	0,0849	0,0193
Employment status: manager	-0,0260	-0,0456	-0,0515	0,0730	0,0399	0,0102
Employment status: self-employed worker	-0,0283	-0,0499	-0,0572	0,0797	0,0443	0,0114
Employment status: unemployed	0,0125	0,0290	0,0544	-0,0425	-0,0399	-0,0136
b. Household socio-economic characteristics						
Household size (*lnNCOMP*)	0,0303	0,0629	0,0963	-0,0982	-0,0705	-0,0208
Household composition: Single person under 65 years old	0,0095	0,0210	0,0362	-0,0318	-0,0264	-0,0084
Household composition: Two adults both under 65 years	-0,0120	-0,0232	-0,0311	0,0368	0,0231	0,0064
Household composition: Two adults and one dependent child	-0,0092	-0,0181	-0,0251	0,0286	0,0185	0,0052
Household composition: Two adults and two dependent children	-0,0095	-0,0187	-0,0257	0,0295	0,0191	0,0053
House/flat : sq.m. per household member (*100)	-0,0088	-0,0183	-0,0281	0,0286	0,0206	0,0061
Household net disposable income (*ln Y*)	-0,0636	-0,1321	-0,2022	0,2062	0,1481	0,0436
Household net wealth : 1st quintile	0,0107	0,0233	0,0395	-0,0355	-0,0288	-0,0091
Household net wealth : 4th quintile	-0,0078	-0,0156	-0,0222	0,0246	0,0164	0,0047
Household net wealth : 5th quintile	-0,0071	-0,0141	-0,0203	0,0222	0,0149	0,0042
Debts : purchase of non-durable goods (Yes)	-0,0058	-0,0129	-0,0225	0,0195	0,0164	0,0053
Size of the municipality of residence: more than 500,000 inhabitants	0,0093	0,0205	0,0351	-0,0311	-0,0256	-0,0081
Size of the municipality of residence: up to 20,000 inhabitants	-0,0037	-0,0076	-0,0115	0,0118	0,0085	0,0025
c. Social capital						
Social Capital (SC)	-	-	-	-	-	-
Social Relationships (SR)	-0,0264	-0,0549	-0,0840	0,0857	0,0615	0,0181
Social Engagement (SE)	-0,0143	-0,0297	-0,0455	0,0464	0,0333	0,0098

4. Conclusions

The research aims to evaluate social capital impact on subjective well-being applying the *ordered probit model* to the following question taken from the 2006 Survey on Household Income and Wealth of the Bank of Italy :

> *Considering your monthly disposable income, is your household able to make ends meet: (1) with great difficulty, (2) with difficulty, (3) with some difficulty, (4) without difficulty, (5) with ease, (6) with great ease?*

The following groups of explanatory variables have been introduced in the model : 1. Respondent and household socio-economic characteristics; 2. Social capital endowment of household region of residence.

The results show a relevant effect of social capital , especially social networks and relationships of trust, on self-perception of well-being.

If these results should prove as robust as they thus far seem to be, they would seem to have important implications for the types of policies to adopt in order to improve household well-being . Social capital is created and reinforced, formally and informally, in the workplace, in local communities and within families. Social capital resides in social relationships.

Governments, but also institutions , employers, people working in voluntary organisations and key public sector workers should facilitate or support the development of social capital by

- strengthening communities , through for example more linkage among generations in the provision of care, education, and leisure;
- encouraging the development of organisations which make effective use of volunteers ;
- empowering citizens and facilitating proximity of government to the people in order to invigorate local communities .

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