Social Capital and the Labour Market

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Abstract

The main question of this paper is: *what type* of social capital is able to mitigate labour precariousness and to foster human development? This issue has been addressed through a review of the literature and an empirical investigation on the Italian regions. The analysis shows that only bonding social capital mitigates precariousness on the labour market, while the weak ties shaping voluntary organizations are the only type of social capital that nourish human development, thereby fostering sustainable growth.

1. Introduction

The positive role of social capital in economic development is now commonly acknowledged in the scientific and political debate. However, both social capital and economic development must be looked on as multidimensional concepts: the definition of *what type* of social capital may provide a positive contribution to the wealth and progress of a society is still subject of major contention.

One of the most popular definitions of social capital refers to the set of 'features of social life – networks, norms, and trust – that enable participants to act together more effectively to pursue shared objectives' (Putnam, 1995). Drawing on more than a decade of empirical investigations, the literature has classified the elements in the set into three main types of social capital: *bonding*, *bridging*, and *linking*.

Bonding social capital relates to networks between homogeneous groups of people, quite close to outsiders, that constrain members into their boundaries. On the contrary, bridging networks are shaped by weak ties connecting people belonging to different socio-economic backgrounds. Examples are culture and sport clubs. Linking social capital refers to vertical connections with

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people in power, whether they are in politically or financially influential positions. Examples are voluntary organizations and social services agencies. Bonding social capital is generally considered as a source of backwardness, while bridging and linking ties are supposed to foster the diffusion of information and trust, with beneficial effects for the economic activity and well-being.

The economics literature on social capital generally focuses on the relationship between networks, trust, and economic growth. It is true that growth, by increasing total wealth, also enhances its potential for improving well-being and solving other social problems. However, there are other facets of social capital and economic development that should be accounted for. As stated by the World Bank (2000), 'History offers a number of examples where economic growth was not followed by similar progress in human development. Instead growth was achieved at the cost of greater inequity, higher unemployment, weakened democracy, loss of cultural identity, or overconsumption of resources needed by future generations … To be sustainable, economic growth must be constantly nourished by the fruits of human development' (2000, 7-8). Acknowledging the importance of human development as one of the main factors of growth's sustainability implies the need for the empirical research to carry out further investigations on its relationship with social capital.

A relevant aspect of growth that has never been accounted for within the social capital literature is 'labour precariousness'. It is our belief that precariousness plays a crucial role in determining social cohesion and the agents' well-being. Precarious workers are generally characterized by low employment conditions in terms of pay, employment security, sickness and parental benefits, balance between work and private life. They are usually provided with less work-related training and enjoy scarce prospects of building a career. The high exposure to the risks of job loss, wage variability, and intermittent unemployment raises the uncertainty on future incomes, making difficult any form of long-term planning of life activities such as marriage and procreation.

Labour precariousness can thus be seen as a barrier to social integration that may destroy human and social capital: a high level of flexibility on employment obstacles training and qualification and, at the same time, hampers the consolidation of social ties, both inside and outside the workplace. While a stable and satisfactory work provides not only income, but also an identity and a 'sense of belonging', precariousness generates discouragement and distrust towards labour market institutions that, at the macro level, may result in a more distrustful society.

Another interesting figure in the economic literature is the surprising lack of empirical studies addressing the role of bonding social capital, that has led to underestimate the possibility for strong family ties to act as a positive asset for the agents' strategies of survival and for the economy as a whole.

The need emerges to focus the empirical research on different types of social ties, as well as on aspects of economic development that may tell something more about the 'quality' and the sustainability of growth.

This paper aims to shed light on the causal linkages connecting the three types of social capital (bonding, bridging and linking) to human development and labour precariousness. The main question of the paper is: *what type* of social capital is able to mitigate labour precariousness and to foster human development?

This issue has been addressed through a review of the literature and an empirical investigation on the Italian regions. Social capital's dimensions have been measured by synthetic indicators built by means of a multivariate analysis performed on a dataset including 43 variables. Causal relationships have been assessed through the use of structural equations models.

Our contribution to the literature is twofold. First, we provide an empirical analysis that simultaneously accounts for all of the three forms of social capital, thereby introducing the first rigorous assessment of the role of strong family ties and sheding light on the diverse effects exerted by each social capital's dimension. Second, we introduce the theme of labour precariousness in the debate on social capital and economic developemnt.

The paper is organized in three sections: first, we provide some definitions. Section 3 carries out a review of the role of social networks in reducing unemployment and precariousness. Section 4 describes the methodology and results of the empirical analysis. We conclude the paper with a brief discussion of the main empirical findings.

2. Definitions

Everyday-life experience suggests that social networks may play a double-sided role in economic development and well-being. On the one side, they are a fertile ground for nurturing trust and shared values, that reduce monitoring costs and facilitate transactions. Repeated interactions among group members foster the diffusion of information raising reputations' relevance. The higher opportunity cost of free-riding in prisoners' dilemma kind of situations makes the agents' behaviour more foreseeable causing an overall reduction of uncertainty. Therefore, an increase in trust-based relations may reduce the average cost of transactions, just as an increase in physical capital reduces the average cost of production. However, networks can work in the opposite direction as well: members of a group may use their ties as a means for the pursuit of narrow sectarian interests, and organizations may lobby against the interest of other groups. The distinction between bonding, bridging and linking social capital reflects the different roles that networks may play in shaping the economic development of a society.

The term ‘bonding’ holds a negative connotation and generally refers to small circles of homogeneous people that do not cooperate with other outside the boundaries of the group. The literature has often focused on the family as a potential form of bonding social capital. In his pioneer study, Banfield (1958) partly attributed the backwardness of Southern Italy to the inability of citizens ‘to act together for their common good or, indeed, for any end transcending the immediate, material interest of the nuclear family’ (1958, 10). According to the author, any family activity was oriented towards the protection and consolidation of the isolated family unit. ‘Moral’ activity (i.e. any action informed by moral norms of trust and reciprocity) was seen as limited to family insiders, with outsiders only being significant as a potential resource to exploit for the family. Applying Banfield’s claims to the purposes of this paper, we can argue that the bonding social capital of the family may act as a tool for job search actions, thereby mitigating labour precariousness, and, at the macro level, as a factor hampering the economic performance and development.

Bridging social capital is given by horizontal ties shaping heterogeneous groups of people with different backgrounds. The term bridging refers to the ability of such networks to create ‘bridges’ connecting sectors of society that, otherwise, would have never come into contact. The common claim is that bridging social capital has positive effects on the diffusion of information and trust, thus fostering transactions and economic growth.

The term linking social capital describes ties connecting individuals, or the groups they belong to, to people or groups in position of political or financial power. For example, civil society organizations allow citizens to come into contact with the institutions to carry out advocacy activities through collective action. This kind of networks is critical for leveraging resources, ideas and information beyond normal community linkages and, therefore, may play a significant role for social well-being. However, the role of organizations in development is widely debated in the literature. Economic studies suggest that much depends on the context where NGOs’ activities take place. Knack and Keefer (1997) sustain that cooperation and solidarity connected with the presence of voluntary associations work better at the level of smaller communities. In the authors words: ‘If the economic goals of a group conflict with those of other groups or of unorganized interests, the overall effect of group memberships and activities on economic performance could be negative … Although the ability of groups to articulate their interests is likely to be an important restraint on government, it also provides groups a way to capture private benefits at the expense of society’ (1997, 1271). In other words, organizations can behave pro-socially as well as anti-socially, just like all the other forms of social capital. Regarding labour precariousness, the effect of the associational activity has not been the object of empirical investigations yet. These hypotheses on the divergent

roles exerted by the three types of social capital on precariousness and development will be tested in section 4 within the empirical investigation on the Italian regions.

According to the UNDP (2007), 'Human development is about much more than the rise or fall of national incomes. It is about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests … Development is thus about expanding the choices people have to lead lives that they value. And it is thus about much more than economic growth, which is only a means - if a very important one - of enlarging people's choices'. Human development is generally measured through the human development index, that is computed as the average of three indexes representing life expectancy, education, and per capita income. In this paper, the human development index has been adjusted in order take into account Italy's high level of wealth.

As regards labour precariousness, in its 'Classification of Status in Employment', the International Labour Organisation (ILO) defines 'precarious' workers as either: (a) workers whose contract of employment leads to the classification of the incumbent as belonging to the groups of 'casual workers'; (b) 'short-term workers' or 'seasonal workers'; or (c) workers whose contract of employment will allow the employing enterprise or person to terminate the contract at short notice and/or at will, the specific circumstances to be determined by national legislation and custom. The ILO defines 'casual' workers as having an explicit or implicit contract of employment which is not expected to continue for more than a short period.

3. The labour market

The social capital literature has shown that workers have better chances of finding employment when using networks (Granovetter, 1973, 1974, Fernandez et al, 2000, Munshi, 2003). In economic theory, Boorman (1975) was the first to provide a formal network model which described the information structure of finding a job. In Boorman's model, networks are endogenous: contacts are developed by individuals who maximize their probability of getting a new job in the event that they lose their present job. Another formal model has been developed by Calvo-Armengol and Jackson (2004), to prove that the employment likelihood increases with the extent of social contacts.

An interesting empirical study by Datcher (1983), focusing on the impact sorted by informal networks on the probability of quitting a job, finds that workers with contacts before being hired are less likely to quit their jobs. In other words, a higher extension of the worker's social networks implies a longer job duration. Within an empirical study on Mexican immigrant workers, Aguilera (2003) has proved that increases in human capital are associated with shorter job tenure, apparently in an effort to improve employment conditions, while the use of social capital is positively related

with job tenure. In general, it appears that acquiring employment is a social process, and those using personal networks find longer lasting jobs. A following study on Mexican immigrants by Amudeo-Dorantes and Mundra (2004) finds that social networks, particularly strong ties, contribute to the economic assimilation of immigrants by raising their hourly wages. However, networks do not enhance immigrants' employability. Instead, strong ties allow for a lower employment likelihood possibly through the shelter against temporary unemployment provided by close family members.

This quick glance at the literature suggests the possibility for social networks to generate virtuous circles, going from precariousness' reduction and the improvement of workers' well-being, to the accumulation of new social capital in the form of trust and more stable social ties. What should be the object of further investigations is the effect of such social networks-induced job matching processes on the overall efficiency of the labour market. For example, Bentolila et al. (2003) argue that in the presence of imperfect information on jobs and workers' characteristics, networks can induce a significant mismatch of talents. This result has been empirically confirmed by Ferrante and Sabatini (2007) in their analysis of the effects sorted by human and social capital on the occupational choices of Italian workers.

The crucial role of precariousness in the determination of well-being has been stressed also by the recent happiness literature. Drawing on data from the Longitudinal Surveys of Australian Youth, Dockery (2005) investigates factors that influence young Australians' self-reported levels of happiness during the school-to-work transition, focusing on the role of labour market experience. The author finds evidence of declining well-being with duration of unemployment and of the importance of job quality, rather than just having a job. Some notable studies provide evidence that unemployment significantly reduces happiness in Europe and the USA (Di Tella, McCulloch and Oswald, 1997) in Britain (Clarck and Oswald, 1994), and in Britain and the USA (Blanchflower and Oswald, 2002). Gerlach and Gesine (1996) find similar results for Germany.

4. Empirical analysis

The aim of this section is to shed light on *what type* of social capital plays a role in reducing precariousness thus improving well-being, and to assess whether there is a relationship with human development. The analysis is based on a dataset collected by the author, including about 200 indicators representing the 'structural' dimensions of social capital and different aspects of the quality of economic development. Principal component analyses have been performed on three subsets of variables with the aim to build synthetic, latent, measures of strong family ties (i.e. bonding social capital), weak informal ties among friends, neighbours and acquaintances (bridging social capital) and weak ties connecting members of voluntary organizations (linking social capital).

Principal component analysis (PCA) explains the variance-covariance structure of a dataset through a few linear combinations of the original variables. Its general objectives are data reduction and interpretation[1]. Rough data on social capital are drawn by a set of multipurpose surveys carried out by the Italian National Bureau of Statistics (Istat) on a sample of 20.000 households between 1998 and 2002. Data are aggregated at the 'regional' level, i.e., there are 20 analysis units corresponding to the Italian regions, traditionally characterized by a strong North-South polarization.

The variables adopted in the analysis are as follows:

- the bonding social capital shaped by strong ties connecting family members. This variable is measured by the first factor obtained from a PCA performed on a dataset of 25 indicators representing family size, the spatial proximity among family members, the frequency of encounters and the quality of relationships. Variables are described in table 1 (annex 1).
- Bridging social capital, as measured by the first factor obtained from a PCA performed on a dataset of 12 variables representing people social engagement, or what can be referred to as the consumption of relational goods, like frequenting sport clubs, dining out with friends, and talking with neighbours. Variables are described in table 2.
- The linking social capital shaped by weak formal ties connecting people from different socioeconomic backgrounds within the boundaries of voluntary organizations. This measure is given by the first factor resulting from a PCA performed on a set of 6 variables representing different dimensions of associational participation, described in detail in table 3.
- The human development index, as adjusted to take into account Italy's level of wealth, different from that of most developing countries. The index of life expectancy has been computed adopting 50 and 85 years respectively as minimum and target levels, the index summarizing literacy and schooling has been replaced by the rate of high school attendance, and the index of per capita income has been computed adopting higher living standards as minimum and target levels. Basic indicators are described in detail in table 4.
- As pointed out in the introduction, we have extended the ILO's notion of labour precariousness to comprise people looking for a job, who suffer from the highest degree of uncertainty. Labour precariousness is thus measured by the ratio between the sum of three variables representing precariousness (workers with provisional contracts, freelancers, and people looking for a job) and the regional labour force.

[1] Although p components are required to reproduce the total system variability, often much of this variability can be accounted for by a small number, k, of the principal components. If so, there is (almost) as much information in the k components as there is in the original p variables. The k principal components can then replace the initial p variables, and the original dataset, consisting of n measurements on p variables, is reduced to one consisting of n measurements on k principal components. For an overview on PCA see Lebart, Morineau and Warwick, 1984, and Johnson and Wichern, 1992).

The causal relationships connecting variables have been assessed through structural equations models, a technique that has grown up in psychometrics and proves to be particularly suitable for the investigation of multidimensional phenomena like social capital and economic development[2]. Hundreds of models – accounting for all the possible linkages connecting variables – have been tested.

In the model that best fits the observed data, labour precariousness is significantly mitigated by bonding social capital and, to a higher extent, by human development. The linking social capital of voluntary organizations exerts a positive effect as well, while weak bridging ties connecting friends and acquaintances do not seem to alleviate precariousness. This result partly contradicts Granovetter's (1973) claim on the strength of weak ties: in Italy's Southern regions, the action of supporting people in their job placement can be motivated just by the existence of strong ties or, in other words, by what Banfield (1958) referred to as 'amoral familism', i.e. the imperative of protecting and consolidating the isolated family unit. Weak ties may function as a means fostering the diffusion of information, but do not concretely help workers in their job search actions. On the other side, the analysis does confirm the negative effect of bonding social capital on human development. This view of the family as an isolated moral community is indeed strongly representative of the social reality of Southern Italy, where most people do not act morally outside the family. However, what to an external observer may look just as a perverse mechanism hampering labour market's efficiency and, in the long run, development processes as well, deserves a more in-depth reflection. The mutual assistance mechanisms developed within the family unit should be looked on also as a defence reaction against situations of underdevelopment and 'social poverty', where both the state's and market's institutions are weak.

Linking social capital proves to exert a positive effect both on human development and on precariousness' reduction. This sounds as a proof of Putnam's claims on the role of voluntary organizations, therefore contradicting part of the economics and political science literature in the field. In Italy, the density of voluntary organizations is in most cases connected with a deep tradition of civic involvement and social participation, and the development of civil society has been largely informed by ideological principles, not directly related to the pursuit of personal or sectarian advantages. On the contrary, bridging social capital negatively affects human development, just like strong family ties. The consumption of relational goods within sport or culture clubs, music bars or restaurants is not necessarily related to those cooperative norms and behaviours that can benefit the economic performance.

[2] For an overview on structural equations models see Bollen (1989).

The analysis in the paper shows that higher levels of precariousness significantly reduce bridging social capital. The lack of professional stability causes frequent changes in people's relational sphere, thereby leading to a continuous process of breaking and rebuilding social ties. Arguably, workers may react to such situation of uncertainty by taking refuge into their private sphere, at the expenses of social participation. A model's refinement with a slightly lower goodness of fit clearly states that precariousness reduces also social participation. Precarious workers are probably too deep absorbed in their daily struggle for survival, and few time remains for pro-social activities and collective action. Once again, the renounce to social participation may be looked on as a defensive choice. Finally, linking social capital proves to be positively and significantly affected by human development.

5. Concluding remarks

In the introduction we posed the question: *what type* of social capital is able to mitigate labour precariousness and to foster human development? The empirical analysis shows that only bonding social capital mitigates precariousness on the labour market, while the weak ties shaping voluntary organizations are the only type of social capital that nourish human development, thereby fostering sustainable growth.

The literature generally underestimates the positive role exerted on well-being by the mutual assistance and social protection mechanisms promoted by the family. Through their ability to mitigate precariousness, strong family ties may act as a means of defence against high levels of unemployment. In other words, bonding social capital can be seen not only as a cause of backwardness, but also as one of its possible consequences.

However, the main factor reducing precariousness is human development: higher levels of wealth and schooling inevitably lead to an improvement of workers' well-being. The widespread idea that social contacts function as a powerful job placement factor is only partly confirmed by data. In Italy, just strong ties support the reduction of precariousness, while weak ties connecting friends and acquaintances seem to be quite harmful to such purposes. What certainly deserves further investigations is the effect of social networks-induced job matching processes on the allocation of talents: significant mismatches of talents and an excessive job market's closure to outsiders may cause a reduction of efficiency compensating the beneficial effects of precariousness' alleviation. Anyway, it is clear that neglecting the social embeddedness of actors seriously invalidates the explanatory power of any economic analysis of the labour market.

Voluntary organizations are the only type of networks that are shown to be able to nourish human development, thereby fostering a sustainable economic growth. Bonding and bridging social capital,

on the contrary, negatively affect human development. In Italy, the associational activity is strictly connected to sound ideological or religious motivations, and generally implies the sharing of moral norms of trust and reciprocity that can counteract the negative effects of the 'amoral familism', as well as the tendency of organizations to lobby for the narrow interests of their members. Finally, it is noteworthy that the relationship between linking social capital and human development proves to have a double direction. Arguably, not only social participation through civil society organizations fosters the institutional and the economic performance, as claimed by Putnam, but the reverse effect is true as well: higher levels of human development encourage people to devote time to community affairs through collective action.

Bibliography

Aguilera, Michael B. (2003), 'The impact of the worker: How social capital and human capital influence the job tenure of formerly undocumented Mexican immigrants', *Sociological Inquiry*, 73 (1), 52-83.

Amuedo-Dorantes, Catalina and Kusum Mundra (2007), 'Social Networks and Their Impact on the Earnings of Mexican Immigrants'. *Demography* 44 (4), 849-863.

Bentolila Samuel, Claudio Michelacci and Javier Suarez (2003), 'Social Contacts and Occupational Choice', CEPR Discussion Paper No 4308.

Bollen, Kenneth (1989), *Structural Equations with Latent Variables*, Wiley Series in Probability and Mathematical Statistics. New York: Wiley,

Boorman Scott A. (1975), 'A Combinatorial Optimization Model for Transmission of Job Information Through Contact Networks', *Bell Journal of Economics*, 6, 216-249.

Calvó-Armengol, Antoni and Matthew O. Jackson, 'The Effects of Social Networks on Employment and Inequality', *The American Economic Review*, 94 (3), 426-454(29).

Clarck, Andrew E. and Andrew J. Oswald (1994), 'Unhappiness and unemployment', *The Economic Journal*, 104 (424), 648-659.

Datcher, Linda (1983), 'The Impact of Informal Networks on Quit Behavior', *The Review of Economics and Statistics*, 65(3), 491-95.

Di Tella, Rafael, MacCulloch, Robert J, and Andrew J. Oswald, 'Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness', *American Economic Review*, 91, 335-341.

Dockery, Alfred M. (2005), 'The Happiness of Young Australians: Empirical Evidence on the Role of Labour Market Experience', *Economic Record* 81 (255), 322–335.

Fernandez, Roberto M., Emilio J. Castilla, and Paul Moore. 'Social Capital at Work: Networks and Employment at a Phone Center', *American Journal of Sociology*, 105, 1288-1356.

Ferrante, Francesco and Fabio Sabatini (2007), 'Education, Social Capital and Entrepreneurial Selection in Italy', paper prepared for presentation at the 2006 International Comparative Analysis of Enterprise (micro) Data (CAED) Conference, hosted at the Federal Reserve Bank of Chicago, Chicago, IL, September 18 & 19, 2006.

Gerlach, Knut and Stephan Gesine (1996), 'A paper on unhappiness and unemployment in Germany', *Economic Letters*, 52 (3), 325-330.

Granovetter, Mark S. (1973), 'The Strength of Weak Ties', *American Journal of Sociology*, 78, 1360-80.

Granovetter, Mark S. (1974), *Getting a Job: A Study of Contacts and Careers*, Cambridge, MA: Harvard University Press, 1974.

Johnson, Richard A. and Wichern, Dean W. (1992), *Applied Multivariate Statistical Analysis*, New York: Prentice Hall.

Knack, Stephen and Philip Keefer (1997), 'Does Social Capital Have An Economic Payoff? A Cross Country Investigation', *Quarterly Journal of Economics*, 112 (4), 1251-1288.

Lebart, Ludovic, Morineau, Alain and Warwick, Kenneth M. (1984), *Multivariate Descriptive Statistical Analysis. Correspondence Analysis and Related Techniques for Large Matrices*, New York: John Wiley & Sons.

Montgomery, James D. (1991), 'Social Networks and Labor Market Outcomes: Toward an Economic Analysis', *The American Economic Review* 81, 1408-1418.

Munshi, Kaivan (2003), 'Networks in the Modern Economy: Mexican Migrants in the U.S. Labor Market', *The Quarterly Journal of Economics*, 549-599.

Ostrom, Elinor, Roy Gardner and James Walker (1994), *Rules, Games, and Common-Pool Resources*. Ann Arbor, Michigan: University of Michigan Press.

Putnam, Robert D. (1995), 'Bowling Alone: America's Declining Social Capital', *Journal of Democracy*, VI: 65-78.

UNDP (2007), 'The Human Development Concept', http://hdr.undp.org/en/humandev/, access ed 4 January 2008.

World Bank (2000), *Beyond Economic Growth. Meeting the Challenges of Global Development*, The World Bank, Washington, D.C.

Annex 1. Tables describing variables adopted within the empirical analysis

Table 1. Basic indicators of strong family ties (bonding social capital)
People aged 14 and more who have given unpaid help to strangers for every 100 people of the same area.
People aged 14 and more particularly caring relatives other than parents, children, grandparents and grandchildren, or counting on them in case of need, for every 100 people of the same area.
Couples with one child, for every 100 couples with children of the same area.
Couples with three children, for every 100 couples with children of the same area.
Couples with children, for every 100 families of the same area.
Couples without children, for every 100 families of the same area.
Families with 5 components and more for every 100 families of the same area.
Singles-families for every 100 families of the same area.
People aged 15 and more with children living 16 kilometres away or more (in Italy or abroad) for every 100 families with children of the same area. People aged 15 and more with children living within 1 kilometre (cohabitants or not) for every 100 families with children of the same area. People having their brothers and/or sisters living 16 kilometres away or more (in Italy or abroad) for every 100 people with brothers and/or sisters of the same area. People having brothers and/or sisters living within 1 kilometre (cohabitants or not) for every 100 people with brothers and/or sisters of the same area. People meeting their brothers and/or sisters everyday for every 100 people with brothers and/or sisters of the same area. People aged 6 and more meeting family members or other relatives everyday for every 100 people of the same area. People up to 69 having their mother living 16 kilometres away or more (in Italy or abroad) for every 100 people with an alive mother of the same area. People up to 69 having their mother living within 1 kilometre (cohabitant or not) for every 100 people with an alive mother of the same area. People aged 6 and more never meeting their family members and other non cohabitant relatives for every 100 people of the same area. People aged 6 and more having neither a family nor other non cohabitant relatives for every 100 people of the same area. People up to 69 having their father living 16 kilometres away or more (in Italy or abroad) for every 100 people with an alive father of the same area. People up to 69 having their father living within 1 kilometre (cohabitant or not) for every 100 people with an alive father of the same area. People aged 14 and more declaring themselves satisfied of relationships with their relatives for every 100 people of the same area. Families with at least 2 components used to have dinner with other relatives at least once a week for every 100 families of the same area.
People meeting their children everyday for every 100 people with non cohabitant children of the same area.
People meeting their mother everyday for every 100 people with non cohabitant mother of the same area.
People meeting their father everyday for every 100 people with non cohabitant father of the same area.

Table 2. Indicators of the informal networks of friends and neighbours (bridging social capital)
Non profit sport clubs for every 10.000 people of the same area.
People aged 6 and more attending bars, pubs, and circles at least once a week for every 100 people of the same area.
People aged 6 and more having dinner outside more than once a week for every 100 people of the same area.
People aged 6 and more meeting friends more than once a week for every 100 people of the same area.
People aged 14 and more attending pubs and bars to listen to music concerts for every 100 people of the same area. People aged 14 and more attending social centres to listen to music concerts for every 100 people of the same area.
People aged 6 and more never attending bars, pubs and circles for every 100 people of the same area.
People aged 6 and more never having dinner outside for every 100 people of the same area.
People aged 6 and more never talking with others for every 100 people of the same area.
People aged 6 and more never talking with neighbours for every 100 people of the same area.
People aged 6 and more talking with others once a week or more for every 100 people of the same area.
People aged 6 and more talking with neighbours once a week or more for every 100 people of the same area.

Table 3. Indicators of linking social capital
People aged 14 and more who have helped strangers in the context of a voluntary organization's activity, for every 100 people of the same area. People aged 6 and more who, when meeting friends, carry out voluntary activities for every 100 people meeting friends of the same area.
Voluntary organizations for every 10.000 people
People aged 14 and more who have joined meetings in cultural circles and similar ones at least once a year for every 100 people of the same area. People aged 14 and more who have joined meetings in ecological associations and similar ones at least once a year for every 100 people of the same area.
People aged 14 and more who have given money to an association at least once a year for every 100 people of the same area.

Table 4. The adjusted index of human development

Label	Description
ISUA	Adjusted human development index, computed as the arithmetic mean of LIFE, SCHOOL and INCOME
LIFE	Dimensional index of life expectancy. Minimum value = 50 years. Target value = 80 years
SCHOOL	Dimensional index of high school attendance, given by the percentage of people aged from 14 to 18 who are enrolled in high schools. Minimum value = 0. Target value = 100
INCOME	Dimensional index of per capita income. Minimum value = 5.000€. Target value = 40.000€. INCOME = [log (effective value) - log(5.000)] / [log(40.000) - log(5.000)]