

Social Capital, Public Spending and the Quality of Economic Development: The Case of Italy

Summary

This paper carries out an empirical assessment of the relationship between social capital and the quality of economic development in Italy. The analysis draws on a dataset collected by the author including about two hundred variables representing different aspects of economic development and four “structural” dimensions of social capital. The quality of development is measured through human development and indicators of the state of health of urban ecosystems, public services, gender equality, and labour markets, while social capital is measured through synthetic indicators representing strong family ties, weak informal ties, voluntary organizations, and political participation. The quality of development exhibits a strong positive correlation with bridging weak ties and a negative correlation with strong family ties. Particularly, the analysis shows a strong correlation between informal ties and an indicator of “social well-being” (synthesizing gender equality, public services and labour markets) and between voluntary organizations and the state of health of urban ecosystems. Active political participation proves to be irrelevant in terms of development and well-being. Finally, the role of public spending for education, health care, welfare work, and the environment protection is analysed, revealing a scarce correlation both with social capital and development indicators.

Keywords: Social capital, Social networks, Public spending, Economic development, Human development, Principal component analysis

JEL Classification: O15, O18, R11, Z13

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Useful materials for the study of social capital are available on Social Capital Gateway, web site providing resources for social sciences edited by the author of this article, at the address www.socialcapitalgateway.org.

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1. Introduction

The idea that society matters for economic growth is not a novelty in the economics debate. As pointed out by Cole, Mailath and Postlewaith (1992), ‘The interaction between the organization of a society and its economic performance was once considered perhaps the fundamental question of political economy’. Despite its acknowledged importance, this issue has been neglected for a long time by the contemporary economic literature. Only during the last decade, due to precious spurs coming from the other social disciplines and to the recent emergence of endogenous growth theories in economics, we have witnessed a real explosion of the number of studies addressing the social roots of growth, often grouped together under the common label of “social capital”. Social capital has therefore rapidly become a popular tool for the explanation of macro phenomena like total factor productivity and growth differentials. Empirical economic studies focusing on social capital’s effects at the macro level generally refer to per capita income as the main indicator of development. However, the extent to which well-being and development progress can be simply measured by income is open to question and widely discussed (Max-Neef, 1989, Daly and Cobb, 1989, Lawn and Sanders, 1999). Starting from the assumption that both social capital and economic development are multidimensional concepts, this paper carries out an empirical assessment of the relationship between four social capital’s structural dimensions and the “quality of economic development” in Italy. The analysis is based on a dataset collected by the author including about two hundred variables representing different aspects of economic development and four “structural” dimensions of social capital: strong family ties (generally referred to as bonding social capital), weak informal ties (bridging social capital), voluntary organizations (linking social capital), and political participation. The quality of development is measured through human development and indicators of the state of health of urban ecosystems, public services, social protection, gender equality, and labour markets. Following Sen’s (1981) idea that public spending plays a fundamental role in improving the quality of life, the amount of public expenditure for social protection and public services is also used to assess the state’s effort in fostering well-being, and to carry out an investigation into the relationship between public action, social capital and development.

Rough data are drawn from a set of multipurpose surveys carried out by the Italian National Bureau of Statistics (Istat), and from the 2004 annual report on the quality of development edited by the Italian association *Lunaria*, in the context of a campaign assessing national budget law’s contents, promoted by 35 Italian NGOs. A principal component analysis (PCA) is run on each of the four groups of variables with the aim to build synthetic indicators for corresponding social capital structural dimensions. These indicators are then used as latent variables in a further factor analysis, investigating the relationship between social capital and economic development.

The main findings of the study can be summarized as follows: a clear distinction between two types of networks emerges. The former is shaped by strong family ties, and corresponds to what the theoretical literature generally calls bonding social capital. The latter is shaped both by weak ties among friends and neighbours and by formal ties linking together people coming from different social backgrounds within the boundaries of voluntary organizations. Such networks, corresponding to what the literature often terms “bridging” and “linking” social capital, tend to juxtapose each other in the Italian regions. Regional endowments of the two types of social capital are very different. Areas characterized by higher levels of bonding social capital can suffer from a lack of bridging and linking social capital. The quality of development in the Italian regions exhibits a positive correlation with bridging and linking social capital and a negative correlation with strong family ties. Active political participation proves to be irrelevant for social well-being and does not increase public spending amounts. Particularly, the analysis shows a strong correlation between bridging social capital and a “social quality” index (synthesizing the national health care system’s efficiency, the degree of gender equality, the quality of school infrastructures and the degree of labour precariousness) and between linking social capital and the state of health of urban ecosystems. Public spending exhibits weak correlations both with all of social capital dimensions and with indicators of well-being. Interestingly the correlation with the social quality index is negative.

The contribution of this paper to the social capital literature is threefold. Firstly, the methodological framework offers the possibility to carry out reliable and precise international comparisons. Secondly, the analysis provides a single, synthetic, indicator capturing that particular configuration of social capital which the literature generally associates with positive economic outcomes. Such a measure, which I call “developmental social capital” can be adopted as a suitable point of departure for deeper empirical investigations on social capital’s effects in terms of growth, development, and well-being. This indicator is a novelty in the social capital literature, and constitutes a new analytical tool in the hands of researchers aiming to investigate on the relationship between social capital and its outcomes, both at national and cross-country level. Thirdly, the analysis provides an empirical testing of the widespread idea that bonding and bridging social capital exert different and conflicting effects on the process of economic development. The study also confirms the well-known polarization between Northern and Southern Italy, both in terms of social capital and economic development.

The outline of the paper is as follows: sections from two to four introduce the concept of social capital and its relationship with economic development through a brief review of the literature. Section five provides a brief description of the adopted methodology. Section six presents synthetic

indicators built by means of principal component analyses for each social capital dimension. Such measures are then used within the empirical investigation of the relationship between social capital and the quality of development carried out in sections seven and eight. The survey is closed by some concluding remarks and guidelines for further researches.

2. What is social capital

The concept of social capital has a long intellectual history in the social sciences, but has gained celebrity only in the 90s, due to Bourdieu's (1980, 1986), Coleman's (1988, 1990) and Putnam's (1993, 1995) seminal studies. Bourdieu identifies three dimensions of capital each with its own relationship to the concept of class: economic, cultural and social capital. Bourdieu's idea of social capital puts the emphasis on class conflicts: social relations are used to increase the ability of an actor to advance her interests, and social capital becomes a resource in the social struggles: social capital is 'the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition' (Bourdieu and Wacquant, 1986, 119, expanded from Bourdieu, 1980, 2). Social capital thus has two components: it is, first, a resource that is connected with group membership and social networks. 'The volume of social capital possessed by a given agent ... depends on the size of the network of connections that he can effectively mobilize' (Bourdieu 1986, 249). Secondly, it is a quality produced by the totality of the relationships between actors, rather than merely a common "quality" of the group (Bourdieu 1980). At the end of the 80s, Coleman gave new relevance to Bourdieu's concept of social capital. According to Coleman, 'Social capital is defined by its function. It is not a single entity, but a variety of different entities, with two elements in common: they all consist in some aspect of social structures, and they facilitate certain actions of actors within the structure' (Coleman, 1988, 98). In the early 90s, the concept of social capital finally became a central topic in the social sciences debate. In 1993, Putnam, Leonardi and Nanetti carried out their famous research on local government in Italy, which concluded that the performance of social and political institutions is powerfully influenced by citizen engagement in community affairs, or what, following Coleman, the authors termed "social capital". In this context, social capital is referred to as 'features of social life-networks, norms, and trust, that enable participants to act together more effectively to pursue shared objectives' (Putnam, 1994, 1).

3. Social capital and economic development

Cited perspectives on social capital are different in origins and fields of application, but they all agree on the ability of certain aspects of the social structure to generate positive externalities for

members of a group, who gain a competitive advantage in pursuing their ends. The basic idea is that a social environment rich of participation opportunities, allowing people to meet frequently, is a fertile ground for nurturing shared values and social norms of trust and reciprocity. The likelihood of repeated interactions among agents grows, increasing reputation's relevance. The better diffusion of information and the higher opportunity cost of free-riding make the agents' behaviour more foreseeable and causes an uncertainty reduction. Therefore, an increase in trust-based relations reduces the average cost of transactions, just as an increase in physical capital reduces the average cost of production (Paldam and Svendsen, 2000, Routledge and von Amsberg, 2003, Torsvik, 2000, Zak and Knack, 2001). Many empirical studies suggest that, at the aggregate level, this mechanism may influence the economic performance and the process of development, providing a credible explanation for growth differentials among regions with similar endowments in terms of the other forms of capital. The most influential contribution in this field is the already cited work by Putnam, Leonardi and Nanetti (1993), who find that social capital matters in explaining regional differences in the Italian economic and institutional performance. Another notable study is that of Fukuyama (1995), who sustains that social capital in the form of non-family or generalized trust is of crucial importance for successful performance in advanced economies. After these seminal studies, the empirical literature has widely investigated the role of social capital in driving a variety of aspects of the economic growth process. Guiso, Sapienza, and Zingales (2004) measure social capital through two indicators of civiness that are 'hardest to explain with self-interested agents: electoral participation and blood donation' (Guiso, Sapienza and Zingales, 2004, 529). They find that in Italy, the level of social capital is positively related to financial development. People with more social capital have higher investments in the stock market and have more access to formal financial institutions. Similarly, Hong, Kubik, and Stein (2004) find that in the United States, people who "know their neighbours" have higher stock-market participation rates. Drawing on various indexes of institutional quality compiled by investment agencies and human rights groups, many cross-country empirical studies show that items such as "generalized trust", "rule of law," "civil liberties," and "bureaucratic quality" are positively associated with economic growth (Kormendi and Meguire, 1985, Barro, 1994, 1996, Heliwell, 1996, Collier and Gunning, 1997, Johnson and Temple, 1998, Temple, 1998, Zak and Knack, 2001). In a review of this strand of the literature, Knack (1999) concludes that 'social capital reduces poverty rates and improves, or at a minimum does not worsen, income inequality' (Knack, 1999, 28).

However, the empirical evidence on the linkage between economic prosperity and social capital is not always convincing and sometimes conflicting. Putnam (2000) and Costa and Kahn (2003) document the large decline in social capital in the United States in the twentieth century. While this

fact is linked to some economic measures, it is hard to argue that the U.S. economy did not flourish over this same period. On the other hand, the decline itself of U.S. social capital has been widely questioned. For example, Paxton (1999) analyzes multiple indicators of social capital in the United States over a 20-year period. The results do not support Putnam's claims, showing instead some decline in a general measure of social capital, a decline in trust in individuals, no general decline in trust in institutions, and no decline in associations. In other words, taking additional information into account does necessarily allow clearer interpretations.

Knack and Keefer (1997) find that trust and civic norms are unrelated to horizontal networks and have a strong impact on economic performance in a sample of 29 market economies, suggesting that, if declining social capital in the United States has adverse implications for growth, it is the erosion of trust and civic cooperation, as documented by Knack (1992), that are of greater concern than the decline in associational life emphasized by Putnam (1995a, 1995b).

The complexity of the relationship between social capital and growth is even more evident at the theoretical level. In particular, it is possible to argue that economic growth could be itself a factor of social capital's destruction: if people devote too time to work and consumption, therefore sustaining growth, few time remains for social participation. Routledge and von Amsberg (2003) show that the process of economic growth is generally accompanied with higher labour turnover, which changes the social structure increasing heterogeneity and affecting social capital. The authors focus on social capital as the aspects of the social structure influencing cooperative behaviour. In larger communities, which grow faster or are more efficient, social capital can deteriorate, making cooperative trade generally harder to sustain. On the contrary, reduced labour mobility, which results in decreased labour efficiency, increases welfare by increasing the proportion of trades that are cooperative. In other terms, «the benefit of the increased social capital can outweigh the cost of lost efficiency» (Routledge and von Amsberg, 2003, 172). This result is supported by Alesina and La Ferrara (2000), who show that in heterogeneous communities participation in groups that require direct contact among members is low, arguing that such a decline destroys social trust therefore hampering economic growth. This study contains an interesting empirical result about the substitution between social and private activities. The authors show that, controlling for individual and community level variables, «moving from a full-time to a part-time job increases the propensity to participate» (Alesina and La Ferrara, 2000, 880): working more brings about a reduction in social participation. Costa and Kahn (2003) show that this process has been particularly relevant for women in the last half century, since the enormous increase in their labour force participation rate, in the U.S. as well as in other advanced societies, has subtracted them much time previously available for social activities. Devoting most time to work and consumption can also be interpreted

as a “defensive choice”: Antoci, Sacco and Vanin (2002) argue that the individual utility of social participation depends both on own and on aggregate participation, as well as on the opportunities available in the social environment. Agents may “defend” themselves from a poor social environment by shifting to private activities, less exposed to external effects. The authors show that: «If this strategy spreads over, private activities will be fostered, but at the expense of social activities. Since both effects accumulate over time, the outcome may be a joint occurrence of economic growth and social poverty» (Antoci, Sacco and Vanin, 2002, 23). On the contrary, spending more time in social activities can lead to a richer social environment, but may act as an obstacle to private growth. However, the political science literature widely shows that social participation can foster the diffusion of trust (Almond and Verba, 1963, Brehm and Rahn, 1997, Stolle, 1998, Stolle and Rochon, 1998, Hooghe and Stolle, 2003, Wollebæk and Selle, 2003), therefore indirectly supporting economic growth. In other terms, it is possible to argue that, if economic growth destroys social participation and trust, it can run faster, but is not sustainable in the long run.

Considered studies all suggest the possibility that, even at the aggregate level, different forms of social capital may affect the economic performance, the process of growth and the quality of economic development. The analysis in this paper provides an empirical testing both of the correlation between social capital and economic development and of the widespread idea that bonding and bridging social capital can exert different and conflicting effects. Due to the lack of suitable data, this kind of investigations is quite rare in the literature. The analysis results confirm that the social capital of weak ties positively affects development as hypothesized by Granovetter (1973) and Putnam, Leonardi and Nanetti (1993), while the “amoral familism” often connected to the strength of family ties can hamper progress and development, as suggested by Banfield (1958).

4. The problem of measuring social capital

Despite the great amount of research on it, the definition of social capital has remained elusive. From a historical perspective, it is possible to argue that social capital is not a concept but a *praxis*, a code word used to federate disparate but interrelated research interests and to facilitate the cross-fertilization of ideas across disciplinary boundaries. As pointed out by Brown and Ashman (1996), one of the primary benefits of the idea of social capital is that it is allowing scholars, policy makers and practitioners from different disciplines to enjoy an unprecedented level of cooperation and dialogue. While conceptual vagueness may have promoted the use of the term among the social sciences, it also has been an impediment to both theoretical and empirical research of phenomena in

which social capital may play a role (Durlauf and Fafchamps, 2004). Summarizing, the greater difficulties affecting the empirics of social capital can be identified with two main problems.

The first one is the use of macro indicators not directly related to social capital's key components. Such indicators – e.g. crime rates, teenage pregnancy, blood donation, participation rates in tertiary education – are quite popular in the empirical research, but their use has led to considerable confusion about what social capital is, as distinct from its outcomes, and what the relationship between social capital and its outcomes may be. Research reliant upon an outcome of social capital as an indicator of it will necessarily find social capital to be related to that outcome. Social capital becomes tautologically present whenever an outcome is observed (Portes, 1998, Durlauf, 1999, Stone, 2001). In order to avoid such shortcomings, this paper focuses only on the “structural” component of social capital, as identified with social networks.

The second main problem facing the empirical literature is “aggregation”. Great part of existing cross-national studies on the economic outcomes of social capital is based on measures of trust drew from the *World Values Survey*. Trust measured through surveys is a “micro” and “cognitive” concept, in that it represents the individuals' perception of their social environment, related to the particular position that interviewed people occupy in the social structure. The aggregation of such data, however, creates a measure of what can be called “macro” or “social” trust which loses its linkage with the social and historical circumstances in which trust and social capital are located. As pointed out by Foley and Edwards (1999), empirical studies based on cross-country comparisons of trust may be a “cul de sac”, because of their inability to address macro outcomes, in view of the absence of the broader context within which attitudes are created and determined. Fine (2001) argues that «if social capital is context-dependent – and context is highly variable by how, when and whom, then any conclusion are themselves illegitimate as the basis for generalisation to other circumstances» (Fine, 2001, 105). My effort of taking into account such insights is based on the rejection of trust as a suitable social capital indicator and on the use of data on people's effective behaviour as collected by the Italian National Institute of Statistics (Istat) in its multipurpose surveys. Following Fukuyama (1999), and differently from great part of the empirical literature, trust is here considered as an epiphenomenon, arising as a result of social capital, and not constituting social capital itself. This assumption is due to the wide heterogeneity of social networks, which, according to their nature and scope, can in turn nurture or hamper human, social, and economic development.

5. The statistical model

The point of departure of the empirical analysis carried out in this paper is the acknowledgment of the very multidimensionality of the concept of social capital, which cannot be represented by a single indicator. This study is therefore based on a wide dataset collected by the author including about two hundred indicators of four main social capital dimensions: strong family ties, weak informal ties, voluntary organizations, and political participation. Data are drawn from a set of multipurpose surveys carried out by the Italian National Bureau of Statistics (Istat) on a sample of 20 thousand households between 1998 and 2002 (see Istat, 2000, 2001, 2002a, 2002b, 2002c, 2002d, 2003, 2004a, 2004b, cited in bibliography).

Principal component analyses (PCAs) are performed on each of the four groups representing social capital “structural” dimensions, in order to build synthetic, latent, indicators. I do not want to go into the details about the computational aspects of PCA here, which can be found elsewhere (see for example Lebart, Morineau and Warwick, 1984, Johnson and Wichern, 1992). However, basically, 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. 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. An analysis of principal components often reveals “latent” relationships that were not previously suspected and thereby allows interpretations that would not ordinarily result. Every couple of selected principal components creates a factorial plan, which may offer a powerful graphic representation of distances between analysis units. Factorial plans are particularly suitable for comparing different geographical areas. This approach is considered “exploratory” - as opposed to great part of the other empirical analyses, which constitutes confirmatory approaches - in that it explores the underlying relations existing in data without having the claim to explain causalities in such relations. Analysis units can be reclassified according to the new “composite measures” provided by underlying factors, and factor scores can then be used as the raw data to represent the independent variables in a regression, discriminant, or correlation analysis. In this study, factor scores are the Italian regions’ coordinates on the first principal components representing the four social capital dimensions taken into consideration. For the region i , the factor score is given by the sum of scalar products between the p variables describing i and versor u_α corresponding to the α -th principal component. It therefore constitutes a new variable measuring region i , resulting as a linear combination of the initial p

variables, whose weights are given by the α -th factorial axis. Formally, the α -th principal component is expressed as a new variable c_α by:

$$c_\alpha = Xu_\alpha \text{ or } \{..c_{\alpha i}..\} = \left\{ \dots \sum_j^p x_{ij} u_\alpha^j \right\}, \quad (1)$$

where X is the data matrix and x_{ij} are its elements.

The model's quality can be controlled through the evaluation of the cases' "absolute contributions" and of the axes' "representation quality". Absolute contributions show how much of the variance explained by the α -th component is due to the i -th case, therefore signalling the presence of potential "outliers". The absolute contribution of the i -th case to the α component is given by:

$$AC = \frac{p_i c_\alpha^2(i)}{\lambda_\alpha} = \frac{p_i c_\alpha^2(i)}{\sum_i p_i c_\alpha^2(i)} \quad (2)$$

where $c_\alpha(i)$ is the score of region i on the α -th factor, weights p_i are uniform in all the PCAs performed in this paper - in order to give the same importance to the statistical units and to highlight differences among regions - and λ_α is the eigenvalue corresponding to the α -th component. If the element i explains too much of a factor's variance, the factorial model is "conditioned" by that element, therefore losing its reliability. When this is the case, element i must be treated as an outlier. Squared cosines are the relative contribution of the α -th factor to the explanation of each unit's variance. They therefore constitute the representation quality (RQ) of the i -th element on the α -th component, as given by:

$$RQ_\alpha(i) = \cos^2 \vartheta_{x_i, \Delta\alpha} = \frac{\|x_{i, \Delta\alpha}\|_M}{\|x_i\|_M} = \frac{c_\alpha^2(i)}{\sum_{\alpha=1}^k c_\alpha^2(i)} \quad (3)$$

where k is the number of significant eigenvalues λ considered in the analysis, $\vartheta_{x_i, \Delta\alpha}$ is the angle shaped by i -th case's vector and the α -th factor. An high squared cosine means that the α -th factor is powerfully able to explain the i -th case.

6. An atlas of social capital in Italy ten years after *Making Democracy Work*

The empirical analysis is based on four different types of social networks, which are described in detail in their multifaceted aspects by Istat's multipurpose surveys data:

1. informal networks shaped by strong family ties.
2. Informal networks of friends and acquaintances.
3. Formal networks connecting members of voluntary organizations
4. Formal and informal networks related to active political participation.

A PCA is performed on each group of variables representing these four kinds of networks, with the objective:

- a. to build a synthetic, latent, indicator for each social capital dimension.
- b. To point out the possible co-existence of diverse latent dimensions within each type of social network.

Factor scores resulting from each PCA are used to assess regional endowments of social capital, allowing to build classifications and graphic representations, which suggestively point out the extreme polarization separating Northern and Southern Italy.

6.1 Social capital as informal networks of strong ties

The family household, as a place in which social relations characterised by trust and reciprocity operate, has received relatively little attention in social capital research. Studies focusing on social capital within a family household typically investigate the impact of social capital on a given family outcome – often child development or wellbeing. The works of Coleman (1988), Furstenberg and Hughes (1995) and Amato (1998) are probably the most notable studies of this type. Coleman's study (1988) suggests that social capital may exist within the family unit as in other social networks. In his analysis of the role of social capital in the creation of human capital, Coleman focuses upon parent child relations and uses measures of the physical presence of adults in a household and attention given by adults to children as empirical indicators of such relations. The "strength" of family relations is measured by the author using a ratio of parents to children. This

approach does not take into account neither the quality of parents-children relationships nor the importance of non-resident parents and of the other relatives outside the family.

Amato (1998) broadens Coleman's (1988) definition of family social capital to include parent-parent relationships as well as parent-child relationships, and uses a 'marital discord' variable to measure parent-parent relations. Despite the breadth Amato adds to the study of networks of family relations, and his attention to the quality rather than quantity of relationships in comparison to Coleman (1988), the analysis remains limited. Apart from not recognising all family relationships (for example child-child or others), Amato's analysis of parent-parent relations tell us about relationship conflict but arguably, like Coleman, little about family social capital. Furstenberg and Hughes (1995) raise questions about the social capital role of non-resident parents, thus potentially expanding the family network beyond the limitation of household walls, to include other significant family members.

In this paper, I measure family social capital through indicators of the family composition (e.g. COPFIG and FAMSING), of the spatial distance between family members (e.g. MUM1KM and FIG1KM), of the relevance of other relatives (e.g. INCPAR2S), and of the quality of relationships both with family members and with the other relatives (e.g. CONTPAR and SODDPAR). Adopted variables are described in detail in Table A1.1, Annex 1. Correlations are as expected, with the notable exception of SODDPAR, expressing people satisfaction for the quality of their relationships with relatives: the frequency of contacts and the spatial proximity are everywhere negatively correlated with the level of satisfaction. Strongly correlated variables (like COPFIG and COPNOFIG) are intentionally kept together in the dataset with the aim to increase the explanatory power of the factorial axes resulting from the PCA. The correlation matrix is reported in Table A1.2. The first principal component explains about 62 percent of the variation of the data and all factor loadings on the first axis are extremely high. The first principal component therefore provides a valuable indicator of the bonding social capital shaped by strong family ties. In particular, lower factor scores are associated with a higher frequency of family contacts and with a higher spatial proximity between family members, but also with a lower satisfaction for the quality of familiar relationships. The synthetic indicator provided by the PCA is therefore an expression of the strength of family ties, but does not take into account their quality. The corresponding ranking of the Italian regions is presented in Table 1, alongside with cases' absolute contributions and squared cosines.

Campania exhibits the highest score, and, more in general, Southern regions register higher endowments of bonding social capital. It is noteworthy observing that negative scores do not correspond to negative endowments, in that the classification is merely "comparative" and based on

a latent, unobservable, variable (the first principal component), obtained as a result of a linear combination of the multiple variables composing the initial dataset.

Table 1. Italian regions ranking based on bonding social capital endowments

Rank	Region	Factor scores	Contributions	Squared cosines
1	Campania	-5,90	16,96	0,88
2	Puglia	-4,72	10,86	0,83
3	Calabria	-4,36	9,25	0,71
4	Basilicata	-3,84	7,19	0,72
5	Sicilia	-3,37	5,54	0,59
6	Sardegna	-2,82	3,87	0,47
7	Umbria	-1,26	0,77	0,15
8	Marche	-0,20	0,02	0,01
9	Molise	-0,06	<i>outlier</i>	0,00
10	Abruzzo	0,08	0,00	0,00
11	Veneto	0,53	0,14	0,05
12	Trentino Alto Adige	0,56	0,15	0,03
13	Lazio	1,49	1,09	0,15
14	Lombardia	1,65	1,32	0,41
15	Emilia Romagna	2,65	3,42	0,65
16	Toscana	2,67	3,47	0,62
17	Friuli Venezia Giulia	3,15	4,83	0,43
18	Valle d'Aosta	3,76	6,89	0,57
19	Piemonte	4,56	10,10	0,89
20	Liguria	5,39	14,14	0,77

At the bottom of the ranking, a case for Liguria clearly emerges. According to the original measurement carried out by Putnam, Leonardi and Nanetti (1993), Liguria was one of the most healthy Italian regions. My rankings show that not only this region is particularly poor of bonding social capital, but also that its endowments of bridging and linking social capital have rapidly worsened during last ten years. The destruction of family social capital in Liguria may be explained as a consequence of a strong process of population aging. The annual natural increase (the surplus of births over deaths) is negative since 1970. The birth rate is actually the lowest in Italy, and the death rate is the highest. The international migration balance is positive and contributes to the increase of the social structure's heterogeneity (Istat, 2004c), while the divorce rate is among the highest (Istat, 2004d).

6.2 Social capital as informal networks of weak ties

Putnam's (1995) study on American civil society drew a distinction between the different types of social networks likely to support social capital. Putnam identified neighbourhood networks – something he described as “good neighbourliness” – as promoting social capital. In contrast, the

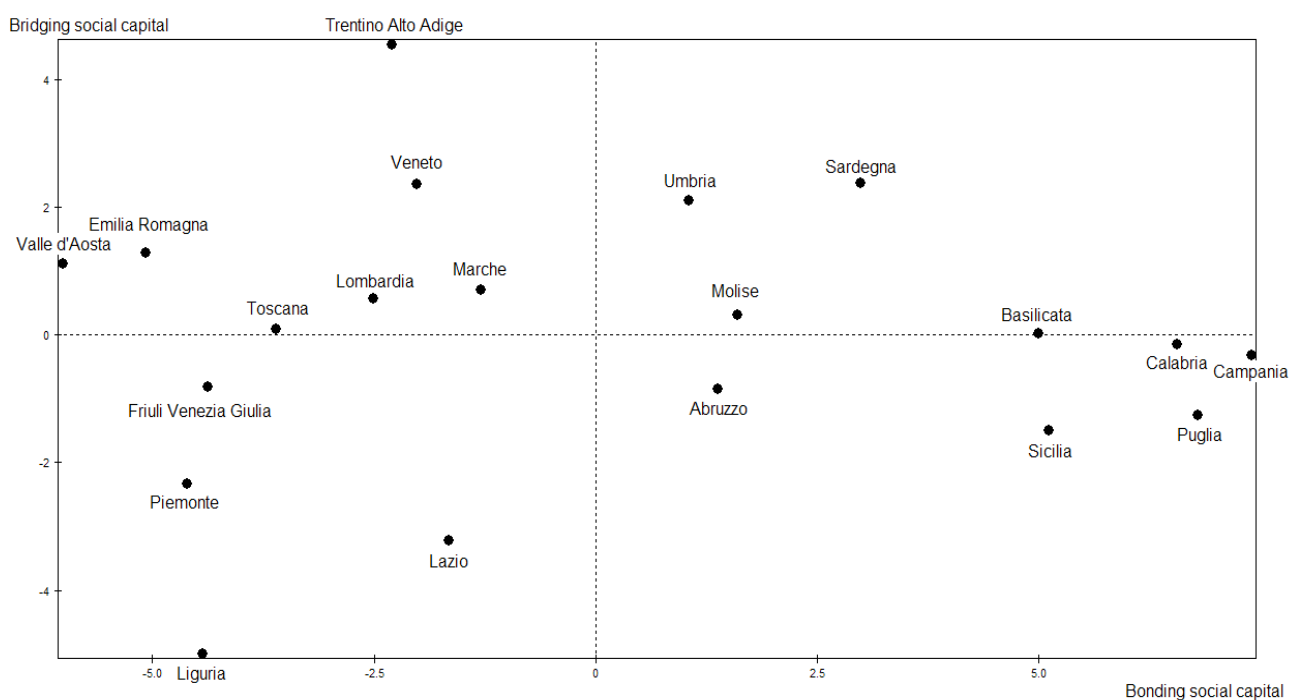
leisure activity of bowling alone, rather than in an organised club activity, is presented by Putnam as evidence of “social disengagement”. Since Putnam’s (1995) analysis, a number of studies have measured networks of friends, neighbours and acquaintances somewhat more precisely. In this paper I focus on several indicators of people social engagement or, in other terms, of what can be referred to as “relational goods”, like ASSPORT and BAR2S. According to great part of the literature, social capital is accumulated not only through standard mechanisms of individual investments, but also as a result of the simultaneous production and consumption of relational goods taking place in the context of different kinds of social participation. It is noteworthy that the relationship between (production and consumption of) relational goods and the accumulation of social capital has a double direction. On one side, a higher social capital increases the returns to the time spent in social participation. For instance, it is easier and more rewarding going out with friends in a context that offers many options for socially enjoyed leisure (e.g. MUBAR and CENAF2S). In other words, social capital may be seen as an improvement in the technology of production of relational goods. On the other side, a higher social participation brings about social capital accumulation as a by-product. For instance, trust (or empathy) may be reinforced and generalized through social interactions (Antoci, Sacco and Vanin, 2002). Adopted variables are described in Table A1.5. A PCA on this dataset provides a synthetic indicator for regional endowments of informal social networks of friends, which are generally referred to as bridging social capital by great part of the literature. The first two principal components explain about 70 percent of the variation of the data and the first axis powerfully represents the bridging social capital given by weak ties connecting friends and acquaintances. The corresponding ranking of the Italian regions is presented in Table 2. Campania lies now at the bottom of the ranking, together with the other Southern regions. The better endowed region is Trentino Alto Adige, while the case for Liguria is confirmed, in that this region appears as the poorest in Central and Northern Italy with respect to bridging social capital. Once again, negative scores do not correspond to negative endowments, because of the comparative nature of the classification.

A PCA on the entire dataset on informal social networks, including both family strong ties and weak ties connecting friends and neighbours allow us to point out the polarizations between strong and weak ties, on the one hand, and between Northern and Southern regions, on the other. The first factorial plan satisfactorily explains about the 63 percent of the variation of the data. The active variables-factors correlations highlights the polarization between family social capital and weak ties connecting friends and acquaintances. The first factorial plan resulting from the PCA is represented in Figure 1. Weak ties among friends and acquaintances are here labelled as bridging social capital, while strong family ties are termed bonding social capital.

Table 2. Italian regions ranking based on bridging social capital endowments

Rank	Region	Factor scores	Contributions	Squared cosines
1	Trentino Alto Adige	-4,34	16,23	0,72
2	Valle d'Aosta	-3,35	9,70	0,79
3	Veneto	-2,71	6,33	0,56
4	Emilia Romagna	-2,69	6,24	0,60
5	Friuli Venezia Giulia	-2,21	4,22	0,69
6	Marche	-1,69	2,46	0,51
7	Toscana	-1,30	1,46	0,33
8	Lombardia	-0,93	0,74	0,12
9	Umbria	-0,61	0,32	0,11
10	Piemonte	-0,36	0,11	0,05
11	Sardegna	0,06	0,00	0,00
12	Molise	0,24	0,05	0,01
13	Abruzzo	1,00	0,87	0,39
14	Liguria	1,36	1,59	0,43
15	Basilicata	1,43	1,75	0,11
16	Lazio	1,64	2,33	0,35
17	Calabria	2,94	7,44	0,68
18	Sicilia	3,68	11,69	0,62
19	Puglia	3,91	13,16	0,67
20	Campania	3,93	13,31	0,85

Figure 1. First factorial plan resulting from the PCA on informal networks



6.3 Social capital as voluntary organizations

Following Putnam (1993, 1995), great part of the literature has used membership in voluntary associations as an indicator of social capital, assuming that such groups and associations function as “schools of democracy”, in which cooperative values and trust are easily socialized.

Most empirical studies on the effect of voluntary associations have shown that their members exhibit more democratic and civic attitudes as well as more active forms of political participation than non-members. Membership in associations should also facilitate the learning of cooperative attitudes and behaviour, including reciprocity. In particular, they should increase face-to-face interactions between people and create a setting for the development of trust. In this way, the operation of voluntary groups and associations contributes to the building of a society in which cooperation between all people for all sort of purpose – not just within the groups themselves – is facilitated (Almond and Verba, 1963, Brehm and Rahn, 1997, Hooghe, 2003, Seligson, 1999, Stolle and Rochon, 1998). The claim is that in areas with stronger, dense, horizontal, and more cross-cutting networks, there is a spillover from membership in organizations to the cooperative values and norms that citizens develop. In areas where networks with such characteristics do not develop, there are fewer opportunities to learn civic virtues and democratic attitudes, resulting in a lack of trust.

However, there are several reasons to doubt of the efficacy of social capital measures simply based on the density of voluntary organizations. Firstly, even though individuals who join groups and who interact with others regularly show attitudinal and behavioural differences compared to nonjoiners, the possibility exists that people self-select into association groups, depending on their original levels of generalized trust and reciprocity¹. Secondly, the group experiences might be more pronounced in their impact when members are diverse and from different backgrounds. This type of group interaction, which is called “bridging”, brings members into contact with people from a cross-section of society and, as a result, gives a more relevant contribution to the “socialization” of norms of trust and reciprocity. The “heterogeneity argument” has been used to criticize the empirical literature on social capital. According to some authors, if diversity matters for socialization of cooperative values, then voluntary associations might not be the measure to take

¹ People who trust more might be more easily drawn to membership in associations, whereas people who trust less might not join in the first place. For example, using a dataset sampling members and non-members in various associations in three countries (Germany, Sweden and the United States), Stolle (2001) shows that, with regard to generalized trust, the self-selection effects were more pronounced than the membership effects. This essentially means that people with higher levels of trust indeed self-select into associations.

into account, as such groups have been found relatively homogeneous in character. Voluntary associations indeed generally recruit members who have already relatively high civic attitudes (Popielarz, 1999, Mutz, 2002, Uslaner, 2002). Finally, face-to-face interactions inside voluntary organizations could be modest and not necessarily imply the sharing of information and values. This is particularly true in advanced economies, where participation in voluntary organizations is often limited to an annual subscription related to the payment of a membership fee. This kind of civic participation may have small spillover effects, scarcely contributing to the diffusion of trust. More in general, until now the literature has not provided a micro theory explaining trust's transmission mechanism from groups to the entire society, and the logic underlying the connection between social ties and generalized trust has never been clearly developed².

In the light of the arguments summarized above, we can state that:

- a) indicators of social capital as civic participation might take into account different variables measuring not only the density of voluntary organizations (i.e. the number of organizations in which a mean citizen is involved, or the so-called "Putnam's instrument"), but also the heterogeneity of members, and the degree of their involvement into the associational life. For example, the former can be described by the "heterogeneity index" proposed by Grootaert (2002)³, while the latter can be measured through multiple variables (e.g. indicators of the willingness to carry out unpaid work, the frequency of meetings, and the members' ability to influence collective decisions).
- b) Every finding on the correlation and/or the causal nexus connecting membership in civic associations to supposed social capital's economic outcomes must be handled with extreme caution.

In this paper, the density of voluntary organizations is measured through ORGANIZ. The degree of members involvement in the association's life is measured through AIUTOVOL, RIUASCU,

² On this regard it is noteworthy that some studies stress the importance of passive membership for the diffusion of trust and democratic values (Almond and Verba, 1963, Wollebæk and Selle, 2003). Analysing data from a Belgian survey on civic participation, Hooghe (2003) concludes that 'the socializations effects of interaction within voluntary associations are not uniform, but context dependent ... This implies that not all voluntary associations will actually contribute to the formation of social capital, but only those associations in which a democratic culture is present' (Hooghe, 2003, p. 106).

³ To test their internal homogeneity, Grootaert (2002) rated Indonesian voluntary associations according to 8 criteria: neighbourhood, kin group, occupation, economic status, religion, gender, age, level of education. A value of 1 indicated that members of the association were "mostly from different" occupation, economic status, religion, signalling a higher level of heterogeneity. On this basis, the author constructed a score ranging from 0 to 8 for each of the three associations. The score of the three associations was averaged for each household and the resulting index was re-scaled from 0 to 100. Unfortunately this kind of data is not available for Italy.

RIUASEC, SOLDASS and AMIVOL. Adopted variables are described in detail in Table A1.3. The PCA allows us to build a synthetic indicator for the linking social capital of voluntary organizations. The first principal component explains about 67 percent of the variation of the data, while the first factorial plan explains about 84 percent. Lower regions' scores on the first axis are associated with a higher propensity to join meetings and funding associations and also, but more weakly, with the propensity to carry out volunteering activities, as expressed by AIUTOVOL. This variable more powerfully loads on the second principal component. This suggests that civil society is a complex phenomenon with at least two major dimensions. The first one is shaped by people's propensity to carry out light forms of participation, like joining meetings and giving money to associations. The second one is given by people's propensity to carry out volunteering activities "on the field", with the aim to give concrete help to disadvantaged people.

It is of interest to rank the Italian regions also according to this more active form of social participation. The scattergram of the Italian regions given by the first factorial plan is therefore presented in Figure 2. The regional ranking based on the first principal component is reported in Table 3. It confirms the strong polarization between Northern and Southern Italy. Veneto, Friuli Venezia Giulia, Toscana and Emilia Romagna lead the ranking, while Campania lies at the bottom, together with Sicilia and Puglia.

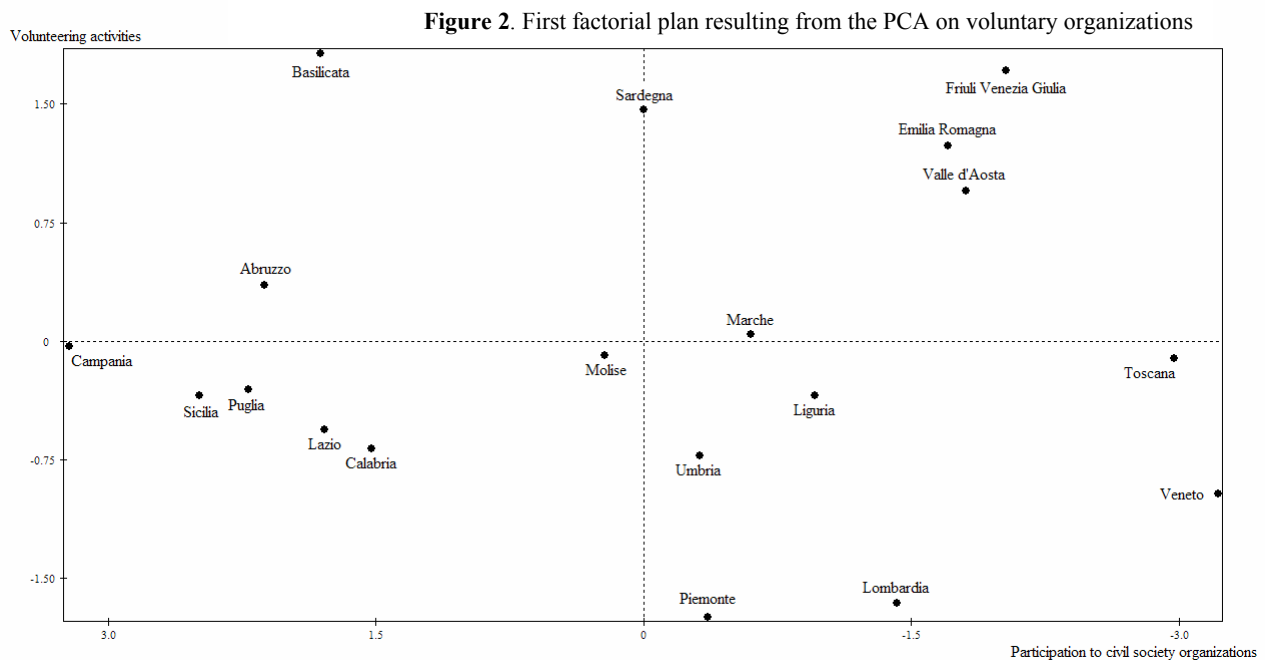


Table 3. Italian regions rankings based on participation to voluntary organizations

Rank	Region	Factor scores	Contributions	Squared cosines
1	Trentino-Alto Adige	-10,60	<i>outlier</i>	0,81
2	Veneto	-3,22	15,31	0,83
3	Toscana	-2,97	13,01	0,77
4	Friuli Venezia Giulia	-2,03	6,07	0,47
5	Valle d'Aosta	-1,81	4,80	0,68
6	Emilia Romagna	-1,70	4,28	0,47
7	Lombardia	-1,42	2,97	0,35
8	Liguria	-0,96	1,36	0,66
9	Marche	-0,60	0,53	0,10
10	Piemonte	-0,36	0,19	0,03
11	Umbria	-0,31	0,15	0,02
12	Sardegna	0,00	0,00	0,00
13	Molise	0,22	0,07	0,01
14	Calabria	1,53	3,43	0,70
15	Lazio	1,79	4,72	0,78
16	Basilicata	1,81	4,84	0,48
17	Abruzzo	2,13	6,66	0,91
18	Puglia	2,21	7,21	0,83
19	Sicilia	2,49	9,12	0,89
20	Campania	3,22	15,28	0,98

6.4 Social capital as active political participation

In this paper, I consider political parties as a particular type of formal networks which constitute an integral part of social capital's definition. Adopted variables (Table A1.4) have been chosen in the attempt to capture the relational dimension of political participation (COMIZIO and CORTEO) and the degree of involvement in the organization's life (ATGRAPAR and SOLDPAR). The first two axes account for 80,34 percent of the variance. Three variables representing more active political participation (COMIZIO, CORTEO and ATGRAPR) are strongly correlated with the first axis, while people's propensity to fund political parties (SOLDPAR) is highly correlated with the second axis. Therefore, we can state that political participation, as well as social participation through voluntary organizations, is a complex phenomenon, with at least two dimensions: the first one is shaped by active forms of political participation, while the second one represents a lighter form of involvement. Trentino Alto Adige and Emilia Romagna are treated as outliers, since their joint absolute contributions to the second axis would otherwise account for 63,8 percent. It is quite surprising to note that Southern regions like Calabria, Puglia and Molise exhibit the highest scores

