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Measuring social capital: Official statistics initiatives in Italy

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Abstract

The aim of this paper is to present - after a review of the theoretical literature and the main international/national measurement experiences - the latest initiatives in measuring the Social capital (SC) in which the Italian National Statistical Institute (Istat) is involved. The first concerns the joint Istat - the Bank of Italy's attempt to produce a multidimensional measure, integrating data from different surveys. These main results have allowed us to overcome the traditional North-South representation of the Italian regions for the SC endowment. The second initiative refers to the National Council for Economics and Labour (NCEL) – Istat's Project on Fair and Sustainable Well-being and to the choice of indicators that monitor the well-being of the Italians regarding the Social relations domain. The last project is the Istat - Italian CSR Manager Network (CMN) initiative to create a bridge between what the firms report in their social reports and the social/environmental official indicators of the country. A standardization of social reports in fact could be beneficial to the development of new measures and studies on SC in the perspective of the sustainable well-being.

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1. Introduction

Since the late 90s the concept of social capital (SC) has gained a wider interest among researchers and policy makers. This interest has developed alongside the results of some promising reports that showed how social capital could help to explain relevant aspects, not only of production processes and the economic development, but also of social life (health, housing).

In the past decade, the attempts to incorporate relational aspects into the theories on development have produced some interesting practical consequences in Italy (territorial pacts, business incubators, etc.). The concept has been frequently used in the strategic policies of many local authorities or non-profit associations. So, the need to measure it at national and territorial level has become a more urgent one.

The aim of this paper is to present the latest initiatives in measuring social capital in which the Italian National Statistical Institute (Istat) is involved. After a brief review of the theoretical literature and the main measurement experiences, the paper describes firstly the joint Istat - Bank of Italy attempt to produce a multidimensional measure of SC at regional level using different surveys, aimed to test a set of indicators to enclose in an *ad hoc* module on SC. Secondly the particularly relevant effort to insert the measurement of social capital dimensions in the debate on individual well-being and social progress made by the National Council for Economics and Labour (NCEL) – Istat's Project on Fair and Sustainable Well-being. And, finally, it presents the opportunities of analysis coming in the near future from the statistical use of the social reports of the enterprises, as envisioned by the Istat - Italian CSR Manager Network (CMN) collaboration connected to the Global Reporting Initiative (GRI).

2. Brief review of theoretical and empirical literature

2.1. Theoretical framework

The concept began to be used in the 1970s as a rehash of ideas not new to sociologists (Portes, 1998). Loury (1977) explains the different degree of success of young people in increasing their human capital using this concept. Granovetter shows how the social networks influence the job search, and how the employer's networks offer a fundamental resource for the organisation of production, that is trust (Granovetter, 1973).

In the 1980s, SC is described independently by Bourdieu and Coleman. Bourdieu (1986) explicitly distinguishes SC from economic and cultural capital, defining it as personal relations that can be directly mobilized by an individual to pursue his own ends and to improve his social position. SC is a capital because it can be converted into other forms of capital and because its maintenance and reproduction entails an investment of time and money on socializing. The quality and quantity of SC are directly related to the social position of those who possess it, the prestige of the reference group and the size of the networks. According to Coleman, the SC is not an individual resource but an attribute of social networks and social structure. SC is embedded in relations among people and it is a public good. Coleman identifies the following shapes of SC: obligations and expectations, information potential, norms and effective sanctions, authority relations, appropriable social organization and intentional organization (Coleman, 1988; 1990).

According to Putnam, SC is a set of features of social organization such as trust, norms and social networks (Putnam et al., 1993). In subsequent work he states that SC refers to interpersonal ties, social networks, reciprocity and trust arising from the ties (Putnam, 2000). For Putnam, it reflects essentially the involvement of individuals in social networks, the creation of reciprocity relations and interpersonal or generalized trust. Trust is considered a prerequisite for involvement in networks of civic engagement and for long-term preservation of social relations. Fukuyama further accentuates the importance of interpersonal trust, which he defines as a social virtue that would help reduce transaction costs and facilitate economic relations (Fukuyama, 1995).

Putnam understands that what is productive for a social group may be unproductive for another group and he identifies the different consequences of dealing with a bridging SC (aimed at creating links between groups) or a bonding SC (aimed at re-establishment of ties of a specific group) (Putnam, 2000). Lin, following the Coleman's approach, emphasizes the importance of the proactive investment in profitable relationships for the achievement of its own purposes (Lin, 2001). Moreover, having access to SC depends on the individual's position in the social structure, on its role within the network, on the strength of its strong ties (family relationships and friendship) and weak ties (other social relations, concepts already considered by Granovetter) (Lin, 2001). Even more clearly Rostila (2011) writes: "individual social capital is in fact 'ordinary' resources (money, information, material resources, knowledge, etc.) that are originally owned by an individual but become available to another individual and form his/her social capital".

In the relational approach, authors look primarily to social networks and the composition and the density of networks are thought to constitute important characteristics of the social interaction with implications for society at large (Granovetter, 1973). In fact, network analysis is an area of research well rooted in theory with research techniques and measurement tools particularly useful in the SC studies (Franke, 2005). Several countries have undertaken measurement using a network approach, including Australia, Canada, the United Kingdom and the United States.

In the institutional approach, trust and social participation (as creator of civic culture-link, however controversial and contested) are necessarily positive development, although there are different types of SC (Putnam, 2000). Networks come in three types (Woolcock, 2001). Bonding networks connect similar and equal individuals, groups or institutions (horizontal plane); Bridging networks connect dissimilar people at the same level (horizontal plane); Linking networks connect individuals, groups and institutions to authority (vertical plane). Some authors go further considering also the institutions (Putnam, 2002), both government institutions (Knack, 1999) and those created through the cooperation activities and the collective goods (Trigilia, 2005). According to Collier (1998), generalized trust and social relations define what is called civic social capital, while the formal institutional dimension (i.e. the political regime, political freedoms, civil rights) defines the governmental social capital (North, 1990; Knack and Keefer, 1997, Alesina et al., 1996).

While political and sociological studies on SC have common theoretical basis, the economic approach developed separately. Solow (1999), and Paldam and Svendsen (2000) even think that the term capital does not seem appropriate for this theme. The numerous definitions proposed have a common element: the reference to a relational dimension of the concept (for a review see Paldam, 2000). In recent years the use of the concept as a synonymous with trust, altruism and reciprocity for the study of the qualitative aspects of economic development is growing up (Sabatini, 2004). Works of several World Bank economists try to synthesize the network approach and the institutional approach by defining SC as the rules and networks that enable people to act collectively (Evans, 1996; Woolcock, 1998; Woolcock and Narayan, 2000). They seek synergies among government, market and civil society that promote SC, which plays a role as a surrogate of formal institutions too weak, hostile or indifferent (Woolcock and Narayan, 2000).

The local dimension is very important in the study of SC since contains both predominantly, locally occurring shared norms and values of a community and the highest number of interactions between economic actors. A good network of relationships between interest groups and local public institutions can facilitate the improvement of infrastructures and services, and investments (Sacco and Vanin, 2000). Social capital can therefore play an important role in regional development in a globalized world where it can help reduce the costs required for coordination of more and more specialised businesses (Saxenian, 1994).

Finally, it is important to also incorporate a line of studies concerning SC and the companies. Despite the contact points between SC and Corporate Social Responsibility (CRS). Some recent studies show that the dissemination of CSR practices can facilitate SC creation (Sacconi, Degli, and Antoni, 2011). Aoki (2001) deals with the public goods (social norms and social capital) which enterprises use to efficiently carry out their activities. These public goods benefit not only the company but also the stakeholders and, indirectly, the competitors. Degli Antoni and Portale (2009) focus on social cooperatives to prove that the adoption of CSR instruments promotes the creation of networks, generalized trust, and relational skills among workers.

2.2. From theory to measurement: experiences and open issues

The different theoretical approaches have consequences on the measurement. Researchers make a distinction between a structural component (density of civic associations, indicators of informal participation) and a cognitive component (linked to individual perceptions of interpersonal trust, solidarity and reciprocity). The first component is quantitative and is detectable in objects and events (therefore it is more used in the national statistical institutes' current surveys); the latter is qualitative and is detectable in attitudes and subjective opinions.

The empirical literature - mainly developed within academics - is now very wide. Studies have different degrees of in depth examination as regards methods and data collection. Very briefly, there are three main pillars in the measurement: 1) generalized trust; especially the economists attach great importance to this indicator, although there is evidence that questions on cognitive aspects lead to interpretation problems which weaken its importance (Bertrande and Mullainathan, 2001; Camerer and Fehr, 2003); 2) the intensity of the associative links; 3) civic and political participation expressed in various ways (from voter turnout to synthetic indicators of multiple dimensions). The three pillars tend to be combined in the measurements. Knack and Keefer (1997) primarily use as indicators the generalised trust and the norms of civic cooperation (measured through individual assessments). Glaeser et al. (2000), through questionnaires and behavioural experiments, show that the measure of trust used by Knack and Keefer actually reflects more the individual reliability than the degree of trust in others. The importance of trust for economic growth is also confirmed by Zak and Knack (2001) for a sample of countries. Trust seems positively linked to the education level and the ability of institutions to ensure contractual and property rights, and negatively to social and ethnic inequality (Knack and Keefer, 1997; DiPasquale and Glaeser, 1999; Helliwell and Putnam, 1999; Glaeser et al., 2000; Alesina and La Ferrara, 2005; Rothstein and Stolle, 2001; Uslaner, 2002). Buonanno et al. (2009) show how the development of associations and civic and altruistic norms (see the blood donations) can significantly reduce crime. Glaeser et al. (1996) illustrate the importance of local social interactions against the crime. Temple and Johnson (1998) use an alternative measure of social capabilities (a synthetic index of social development) significant for the economic growth in developing countries. Guiso et al. (2004) demonstrate that the concept (measured in terms of blood donations and voter turnout) is important to explain economic development. At the macro level, other studies show how social cohesion and civic engagement strengthen democratic institutions and improve efficiency / honesty of public administration (Putnam et al., 1993; De Blasio and Sestito, 2011).

NSIs have long been delayed in building the conceptual framework and producing indicators on these issues. In the year 2000 some National Statistical Institutes (NSIs) launched projects for measuring SC: Statistics Canada with the General Social Survey on Social Capital, the ONS Social Capital Project (OECD, UK ONS, 2002) in Great Britain and the project carried out by Statistics New Zealand and the Australian Bureau of Statistics. All these projects consider at least three pillars (social networks, social participation and trust). More, Statistics Canada distinguishes civic and political participation and considers religious participation. Very significant is the experience of the OECD and the Siena Group[a] which, for international comparisons purposes, identified four main SC dimensions (social participation, civic participation, social networks and support, trust and reciprocity) and key indicators, and prepared a harmonized questionnaire for the measurement .

Other surveys to be mentioned are the Social Capital Community Benchmark Survey in the United States and the broader World Bank project for the realization of surveys on SC and inequalities in developing countries (Rossing Feldman and Assaf, 1999).

In the latest years a research field on SC, sustainable development and well-being has been growing, especially after the mention in the Report of the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz, Sen, and Fitoussi, 2009) that SC and institutional assets of our society pass to future generations is an important issue among non-monetary aspects of economic development. The Report of the Joint UNECE/OECD/Eurostat Working Group on Statistics for Sustainable Development focuses on two important areas: 1) the ability of a society to work together, 2) a stable political, legal and cultural framework. Therefore, indicators that focus on linking and bridging networks would seem most relevant to the SC approach and a preliminary set of indicators by network type is proposed (UNECE/OECD/Eurostat, 2008). Subsequently, the Steering Committee of Joint UNECE/Eurostat/OECD Working Group on Statistics for Sustainable Development proposed a measurement based on three pillars: 1) Trust, 2) Shared norms and values, 3) Institutions (UNECE, OECD, Eurostat, 2011). Finally, the OECD report "How is life?" notes the need for adequate measures of social connections, social network support, interpersonal trust and other dimensions in the absence of which the measurement of well-being remains challenging. The Report presents only placeholders for measurement in official statistics: social network support, frequency of social contacts, time spent in volunteering, trust (OECD, 2011).

The empirical approaches to the measure have raised several criticisms, the main concern the following aspects:

- *The unidimensionality of the approach*: Despite the concept of SC is generally recognized as a multidimensional one, many studies tend to focus on the measurement of a single dimension and above all to consider a single indicator.

- *The micro-macro relationship*: Bourdieu's approach emphasizes the role of the individual, which implies the need to investigate networks and investment in social relations. The unit of analysis is therefore the subject, but if the individual can rely on the resources available to the group, it is itself the depositary of the resources. Therefore, the analysis should be extended from the individual data to the structural data available from administrative sources. While in the micro-foundation of the relational concept, where the measure is given by the dimension and quality of social networks, in the macro-foundation the measure is provided primarily by trust and social participation. But the aggregate macro-level measures of micro collected data may diminish the value of the measure (Fine, 2001). Institutional/systemic aspects cannot be explained only by the nature of

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[a] The permanent forum of the NSIs and research organizations in the social-statistical field under the aegis of the United Nations.

the underlying networks (Mutti, 1998), recent works acknowledge that the links among sources, pillars and outcomes of SC are circular (Adam and Roncevic, 2003).

- *Outcomes*: Results are often affected by the widespread use of indicators referring to the outcomes (e.g., levels of crime, voter turnout, etc.). Often the empirical analysis come to not adequately justified conclusions because authors consider as causal relations simple statistical correlations, or because they consider the contribution of several independent variables neglecting interactions with other causal factors and variables exogenous to the model.

- *The inadequacy of conventional surveys*: Social desirability, cognitive problems and instability attitudes can generate a measurement error that appears to be correlated with respondents' characteristics; hence, civic values can be better measured through controlled experiments (Bertrande and Mullainathan, 2001). Camerer and Fehr (2003) provide a very useful overview of the methodologies for measuring social norms in a variety of games that involve cooperation, but the validity of using laboratory experiments to measure social preferences has been questioned by Levitt and List (2007).

3. Current measurement initiatives in official statistics

During the 80s and the early 90s, Istat gave a great push to data collection on social statistics introducing in the multipurpose household surveys. For the first time themes like social and political participation, aids and supports as well as subjective indicators on various life dimensions were investigated. At the beginning of 2000, given the large scientific interest and the pressure exercised by NSIs and international organizations on the topic, Istat started a research project of an "Atlas of Social Capital and Institutions" aimed at studying the presence/absence of institutions and social networks at territorial level and how all this affected socio-economic development (Righi, 2006). After the adoption of the OECD definition (OECD, 2001), the Project tackled the measurement of SC by mapping the sources and information inside Istat and other public agencies. Four main dimensions have been identified: social participation, civic participation; social interactions, social networks and supports; trust and reciprocity. A collection of over 400 questions from various sources allowed researchers to analyse the evolution of the four dimensions at regional and provincial level (Righi and Recchini, 2003).

3.1. Istat - Bank of Italy collaboration

For some years the collaboration between Istat and the Economic Research Unit of the Bank of Italy on SC studies has been responsible for the enhancement of the measurement[b] of the concept in Italy in order to improve the studies on the links between SC and local economic development (De Blasio and Nuzzo, 2006; 2010). Since currently in Italy there is not an official statistical survey devoted to SC, the collaboration has permitted to integrate data from different surveys with diverse SC indicators to perform new measures of SC based on more dimensions and it has allowed the identification of a minimum set of information to include in a SC ad hoc module of a future survey.

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[b] Bank of Italy's Survey of Household Income and Wealth (SHIW) in 2010 introduced a specific module on some SC cognitive aspects, particularly on trust and on civic norms and values received and transmitted from parents to children (similar to those in World value survey).

In a recent study the two major yearly Italian household surveys containing two different sets of SC indicators which have been used: the Istat Multipurpose Survey - Aspects of daily life (ADL)[c] 2009 micro data and the Bank of Italy's Survey of Household Income and Wealth (SHIW)[d] 2010 micro data (Righi and Scalise, 2012). The 23 SC variables show particularly strong positive correlations: a) among all the different forms of political participation; b) between the doing of unpaid work for a voluntary organization and to join the meetings of an association of volunteering; b) amongst working without pay for any type of organization and the funding of a political party; c) between speaking about politics at least once a week and all the other forms of information on politics (debate/ newspapers). And the negative correlations there are instead between: a) speaking about politics and all the forms of political participation; b) to join a cultural association meeting and the funding of associations; c) work without pay for a labour union and to join meetings of other associations. On the basis of these findings, variables were reduced to 12 dummies (yes/no). Very low correlations are found between variables related to Trust and Values (Appendix, Tables A1-A3).

A Principal Component Analysis (PCA) on the Istat Multipurpose ADL survey micro data has allowed the identification of four synthetic factors (synthesized in Table 1 with the deriving items): 1) Social participation (in associations or volunteering), 2) Political participation, 3) Participation in professional/particularistic purposes associations, 4) Friendship relations. The PCA on Bank of Italy SHIW survey micro data has identified three factors capturing respectively the degree of generalized trust, the degree of trust in the family and in friends/neighbours and the relevance of civic values - including tolerance, respect for the law and trust (Table 1). The PCA has been repeated separately for each dimension to produce non-orthogonal indicators and the results were the same (Appendix, Table A4).

Elementary SC variables in the two surveys show a good correlation within each SC dimension and always one major component to synthesize the information for each dimension comes out, except for the Trust dimension. Variables identifying the Social and Political participation dimensions refers, on the one hand, to unpaid work made for an association, to the associative participation and to the funding of associations, on the other hand, to the participation to political party meeting and to the funding of a political party and are almost the same already considered in a previous paper on the regional SC Benchmarking in Italy (Righi and Turi, 2007). Instead, the Particularistic social participation (unions and professional association) is a newly identified dimension, as the Norms and values (received and given) which are extremely important dimensions never considered before altogether with the other SC factors. Friendship relations emerge as a very different factor from the Social and Political participation factors.

The trust in the family and inner circle seems to emerge as a concept different from the generalized trust[e]. Recent studies have begun to uncover the relationship between particular and general social trust, but with very different results. Some have found that they are distinct and sometimes incompatible set of attitudes (Stolle, 2001; 2002; Uslaner 2002; Newton, 1999; Zak and Knack, 2001), others have found that the two can coexist or that specific trust can promote general trust (Freitag and Taunmüller, 2009) and others find that particular trust seems to play an important part in creating and sustaining high levels of general and political trust (Zmerli and Newton, 2008).

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[c] The survey covers a wide range of aspects: household relationships, living conditions, political and social participation, health condition and lifestyle, leisure time, culture, readiness for IT and approach to old and new media, opinion about public services. More than 19 thousands households, with a total of about 48,000 individuals were interviewed. Two stage sampling has been employed, with Italian municipalities as primary sampling units and randomly extracted families as second stage units.

[d] The sample surveys comprises about 8,000 households (24,000 individuals), distributed over about 300 Italian municipalities. The scope of the survey includes wealth and other aspects of households' economic and financial behaviour.

[e] This result could partly depend from an unclear wording of the question of the generalized trust in the SHIW Survey.

Then, the information in the two datasets was matched after having made homogeneous the common variables (age, sex, marital status, education, professional status, geographic area, etc.) and having aggregated the information into different types of individuals according to socio-demographic characteristics and SC factors (Ridder and Moffitt, 2005).

Table 1. SC synthetic factors and their elementary items deriving from Istat Multipurpose (ADL) survey, Italy 2009, and Bank of Italy SHIW survey, Italy – 2010.

Istat Multipurpose (ADL) survey		*Bank of Italy SHIW survey*	
Factor	*Item*	*Factor*	*item*
1) Social participation	Have you done any unpaid work for a voluntary organization or for any other type of organization? UNPAIDW	1) Generalized Trust	Do you think that most people can be trusted or that you're never too careful and cautious in dealing with people? GENTRUST
	Have you joined a meeting of an association of voluntary work or of an ecological or cultural association? PARTAS		Do you trust people from the same region or from other Italian regions? TRUSTW
	Did you fund an association? FINAS		
2) Participation in professional/particularistic purposes associations	Have you joined a meeting of a labour union or have you done any unpaid work for a labour union? UNION	2) Trust in "Strong ties"	Do you trust your family members and neighbours? TRUSTS
	Have you joined a meeting of a professional association? PROFPART		
3) Friendship Relations	Do you meet your friends in leisure time at least once a week? FRIENDS	3) Norms/Values	Did your parents in your education stress 1) tolerance for different opinions, 2) to be careful in trusting people? VALUER
4) Political participation	Have you joined a meeting of a political party or have you done any unpaid work for a political party? PARTY		In the education which you give to your son what did you stress the most 1) tolerance for different opinions, 2) to be careful in trusting people? VALUEG
	Have you fund a political party? FINPA		

Source: authors elaborations

On the joint dataset a cluster analysis is carried out with Ward's hierarchical method on standardized data and Euclidean distances and conducted on the seven synthetic factors identified in the two datasets. Three clusters of Italian regions were identified (Table 2). According to the results, in 2010 there is still a substantial gap in SC endowment persists between the northern/central and southern regions; North-eastern regions (with Trento and Bolzano leading the ranking in most dimensions), in particular, show endowments of different types of SC much higher than the national average, confirming the results of previous studies (Putnam, 1993; Nuzzo and Righi, 2005; Cartocci, 2007; Righi and Turi, 2007). But the introduction in the analysis of seven SC factors has made it possible to overcome the traditional North-South representation of the Italian regions for the SC endowment: Basilicata and Sardinia are in fact outside from the cluster of the South. The SC endowment of the first cluster,

joining the north/central regions is consistent with the concept of "Weak ties", presenting more pro-social behaviours and very high importance of intergenerational values. Conversely, a greater part of the southern regions and some central regions are otherwise characterized by low participation and generalized trust and high particularistic trust. Interestingly, the variable capturing the frequency of interactions with friends is the only dimension in which southern regions lead. It represents a different aspect of relational social capital, relating the networks and the links already existing amongst defined and probably homogenous groups of people. Basilicata and Sardinia, outside from the cluster of the southern regions, are characterized by strong political participation, friendship relations and generalized trust. So, the characteristics of Cluster 2 could recall the concept of "Strong ties" evoked by Granovetter (1973).

Table 2. Score of the SC factors for the clusters of Italian regions

Factors	*Cluster 1: "Weak ties"*	*Cluster 2: "Strong ties"*	*Cluster 3: Low participation and high particularistic trust*
	Piedmont, Lombardy, VDA, Trentino A.A., Veneto, FVG, Liguria, Emilia R., Tuscany, Umbria, Molise	Basilicata and Sardinia	Marche, Lazio, Abruzzo, Campania, Puglia, Calabria, Sicily
Associations membership	MAX	MEDIUM	MIN
Political participation	MEDIUM	MAX	MIN
Participation in professional/particularistic purposes associations	MEDIUM	MAX	MIN
Frequency of friendship relations	MIN	MAX	MEDIUM
Generalized trust	MEDIUM	MAX	MIN
Particularistic trust	MEDIUM	MIN	MAX
Importance of intergenerational values	HIGH	MIN	MIN

Source: Righi and Scalise, 2012

However for Basilicata this result is not a complete novelty. Already in the early 2000s Basilicata was in the top positions of the ranking of Italian regions for average performance of the SC indicators (Righi and Turi, 2007). Amongst the possible reasons for this different position of Sardinia and Basilicata regions with respect to the other southern regions, it should be noted that Sardinia - from the beginning of the 19th century - was characterized at the national level by a high level of political engagement[f]. More, Sardinia at least since the mid-90s has had the highest level of GDP per capita among the southern regions. In recent decades, the economic and industrial development of Basilicata has radically changed the situation that Banfield encountered in 1958 in the village of Montegrano. The increase in per capita GDP observed in the period 1995-2009 was well above the average for the South and today Basilicata has a per capita GDP higher than the average in the South and the region has started to catch-up processes regarding many civic dimensions since the 80s (Nuzzo, 2006; Cartocci, 2007). A cluster analysis confirmed that people with higher levels of education and professional status present higher levels of generalized trust and social and political participation and lower levels of trust in the inner circle and friendship relations and four clusters of individuals emerge, whose main features are: 1) the pro-social, people involved in associations and political life, with high level of interpersonal trust and intergenerational civic values but with a few friendship relations; 2) the isolated, socially disengaged young women and relationally

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[f] It is really well known the separatist party Sardinian Action Party, founded in 1921 by veterans who had fought in the World War I, which deeply influenced the political life of the region.

isolated with low interpersonal trust and high level of intergenerational civic values; 3) the relationals, people involved in associations with many social relations and high interpersonal trust, who assign little importance to the intergenerational civic values; 4) the bonding ties holders, people especially located in the South and on the Islands with high participation in professional/particularistic purposes associations, many friendship relations but low interpersonal trust and importance to the values transmitted (Righi and Scalise, 2012).

It is a promising result and it would not be possible to offer such a wide spectrum of information for identifying the clusters considering only one of the two surveys used in this study. The SC variables determining the 7 factors identified could be generally used in the designing of the questionnaire of an ad hoc SC module of a household survey to synthesize in few questions the best information on the topic. Instead, the four social types of individuals according SC characteristics, incorporating norms and values related to the cultural heritage of the Italian population, hardly could be identified in other countries.

3.2. The Social relations domain in the National Council for Economics and Labour (NCEL) - Istat Project on Fair and Sustainable Well-being

A joint initiative of the National Council for Economics and Labour (NCEL) and Istat to measure the fair and sustainable well-being started in April 2011. The project follows the lively international debate on the "Beyond GDP" measures, stimulated by the widespread belief that the progress of a society should not be measured only with economic indicators but also with social and environmental indicators. The ultimate goal of the NCEL-Istat initiative is to share a set of official statistic indicators able to represent the progress of Italian society, possibly taking into account economic, environmental and social sustainability and inequalities (Istat, 2012).

Istat created a Scientific Committee to study the most appropriate statistical indicators for several dimensions, decided in agreement with the NCEL. Social relations is one of these dimensions, as the joint initiative states that "the intensity of social relations and social networks affects the physic and mental well-being of individuals and represents an investment enhancing the effects of human and social capital". The family is a privileged observation point, along with friendships and working relationships, community and neighbourhood networks, civic engagement and volunteering. Also the interpersonal trust is a considered indicator in the domain" (Istat, 2012).

The sub-Committee appointed to make a proposal on Social relations indicators has decided to use the SC concept to fulfil their duties. According to the literature, there are three main channels through which SC may affect human well-being:

1. The creation of social networks may have a direct well-being effect as individuals who are strongly embedded in societal networks tend to be happier and more satisfied with life than those who are less integrated in society;

2. SC can stimulate increases in other types of capital and in their productivity: a) natural capital - a more sustainable use of natural resources can be achieved through networks where environmentally friendly norms and values are built up (Ostrom and Ahn, 2003); b) economic capital - many authors show that co-operation between firms (firms and universities) stimulates the productivity through the share of knowledge; c) human capital - Teachman et al. (1997) stress the importance of SC in the process of human capital formation and Putnam (2000) considers education as an important determinant of SC, as the norms and values that children develop at school enable them to participate in society;

3. SC formation may lead to increases in efficiency and declines in transaction costs. According to Fukuyama (1995) the 'informal' contacts that generalised trust creates proof to it being a less costly alternative than enforcing formal, institutionalised contracts. Durlauf and Fafchamps (2006) point at other efficiency-enhancing effects of SC which facilitate social and economic transactions. More, the literature has also emphasized the importance of good relations between state and society. A balance of power between state and society produces favourable growth paths (Acemoglu et al., 2004). Contacts with universal welfare-state institutions tend to increase social trust. Therefore empirical analysis suggests that the specific design of welfare-state policies matters for the production of SC (Kumlin and Rothstein, 2005).

Given the particularistic-clientelistic configuration of the Italian welfare system, these reflections offer a variety of ideas for the development of empirical SC indicators. So, an institutionalist-type conceptual scheme was adopted by the sub-Committee: the Institutions, the Civil society, the Social economics and the Family are the four drivers of the well-being of individuals, families and social groups at local and national level (Istat - Commissione Istat per la misura del Benessere equo e sostenibile, Sotto-Commissione di lavoro Relazioni sociali e partecipazione & Politica e Istituzioni, 2012). Indicators associated with the four drivers of the domain of Social relations were proposed and discussed with the Scientific Committee. The highest number of indicators soon appeared to belong to the pillars of Civil society and Institutions, although the lack of official statistical information emerged for several important themes, i.e. a) the number of associations which every individual is associated (density of relationships), b) informal networks, c) the time spent in associations, recreational or cultural activities, d) the civic norms and values, e) trust in particular social groups; f) religious participation[g].

The interaction amongst the sub-Committee, the Scientific Committee and the NCEL Commission has determined that the initial Social relation domain was split in two distinct domains and other two main adjustments: the enhancing of the Family and Social economics pillars with respect to the others, and the underlining of the individual type perspective with respect to a macro level perspective (i.e. the inclusion of indicators on satisfaction with family/friendship relationships). The final selected indicators being aimed at the measurement of the well-being of a society are in Table 3.

In the Social relations domain a synthetic indicator of social participation and one of association funding have been considered alongside items on aids. The NCEL representatives of civil society and of the Unions pushed to extend the Social economic indicators to emphasize the economic importance of social relations for well-being. This led to the inclusion of indicators on social co-operatives and volunteer work, besides the non-profit organizations. But it became clear that the information used in the measurement of well-being and social capital only partially reflects the changes occurring in society as offering economic and social indicators is only partially overcome. While there are not any indicators on new forms of participation, solidarity and values in recent years have gained increasing social importance (critical consumption, protest movements, flash mobs, examples of direct democracy, etc.). Finally, besides the degree of satisfaction, the percentage of children who play with their parents has been considered in order to try to assess the quality of relationships within the family.

The Politics and Institutions domain joins civic and political participation measures (traditional measures such as the voting turnout and more innovative measures of political participation), this has also determined the split of the trust dimension between the trust in the institutions and the generalized trust (in the domain Social relations).

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[g] However, the information gap on religious participation was bridged by including a specific question in the yearly Istat Multipurpose Survey - Aspects of daily life, 2011.

Table 3. Selected indicators referring Social relations and Policy and Institutions

Social relations	*Policy and institutions*
Social participation based on: percentage of people aged 14 and over who during the past 12 months:	Civic and political participation based on: share of people aged 14 and over who:
- have participated in meetings of associations (cultural/recreational, ecological, civil rights, peace);	- talk about politics at least once a week;
	- seek information about Italian politics at least once a week;
- have participated in meetings of trade unions and of professional associations;	- in the past three months have taken part to online consultations or polls on civic/political issues (e.g. urban planning, signing a petition);
- have participated in meetings or activities (cultural, sporting, recreational, spiritual), organized or promoted from parishes, religious or spiritual organizations/groups;	- in the past three months have read and posted on the web opinions on social/political issues
- have attended meetings of political parties and/or have worked free for a party;	
- who pay monthly or periodical fees for a club/sports club	
Generalized trust: share of population aged 14 and over who believes that most of the people are trustworthy	Voter turnout: percentage of eligible voter who cast a ballot in the last election for the European Parliament
Non-profit organizations per 10,000 inhab.	Trust: percentage of people aged 14 and over who declared to trust:
	- the Parliament
	- the judicial system
	- political parties
	- local institutions (regional, provincial and municipal governments)
	- other institutions (police/ fire brigade)
Social co-operatives per 10,000 inhab.	Share of women and political representation in Parliament and in regional councils
Volunteer work: population aged 14 and over who in the past 12 months performed non-paid volunteer work for associations or volunteer groups	Share of women:
	- in decision-making bodies (Constitutional court, Magistrates' Governing Council, Regulatory authorities, Embassies);
	- in the boards of companies listed in stock exchange
Provided aids: share of population aged 14 and over who in past 12 months have given unpaid aid to non-cohabiting relatives and non-relatives	Median age of members of Parliament
Association funding: share of population aged 14 and over who in the past 12 months have funded associations	Length of civil proceedings of ordinary cognisance of first and second degree: average time elapsed between entry and closing of proceedings
Satisfaction with relationships: share of population aged 14 and over who have declared to be very satisfied:	
- with his/her family relationships;	
- with the relationship with his/her friends	
Percentage of people of 14 years and over which have relatives, friends or neighbours on which they can count	
Percentage of children aged 3 to 10 years who play with their parents	

Source: http://www.misuredelbenessere.it/fileadmin/upload/docPdf/LISTA_INDICATORI_ENG.pdf

The NCEL representatives pushed to include the indicators on the share of women in various positions and the median age of members of Parliament, considering that an equal gender/age distribution in political representations, in the institutions and in the boards of companies is a sign of fair relations within the society. The length of civil proceedings of ordinary cognizance has been chosen to represent an aspect of quality of functioning of the state, which, through the creation of trust, can foster the social and economic transactions.

The analysis has shown that the information currently used only partially reflects the changes occurring in society. This applies, in particular, for new forms of participation, reciprocity, ideals, ethical or religious values, which in recent years have increasingly gained social importance (i.e., critical consumption, protest movements, flash mobs, forms of direct democracy on particular issues, etc.). Even the conventional surveys used in research on SC and well-being are largely inadequate. To catch the actual individual behaviour in real situations new tools are needed, such as anchoring vignettes (Hopkins and King, 2010) and stories (Marradi, 2005), this of course implies a profound renewal in the research design and in the measurement techniques.

3.3. *Social capital and Corporate Social Responsibility (CSR): the Global Reporting Initiative (GRI) and the Istat - Italian CSR Manager Network (CMN) initiative on harmonisation*

In 1992, in the aftermath of the Rio Earth Summit and the drafting of Agenda 21, the Corporate Social Responsibility (CSR) becomes an environmental and social engagement for enterprises. At that time, in fact, the United Nations invited the major multinationals to establish trade agreements and contracts including the protection of workers' human rights and of the environment, to guarantee minimal ethical standards (e.g., rejection of child labour and human exploitation, support for equal opportunities, etc.). Special tools to spread the best practices of enterprises have been developed, the most common are: codes of ethics, social reports and sustainability reports, social quality marks. The main measuring tool in the CSR is the social report and the Global Reporting Initiative (GRI) - launched in 1997 by the CERES in partnership with the United Nations Environmental Program (UNEP) - develops international guidelines to make comparable and verifiable the corporate reporting on social and environmental performance. These international guidelines are the most relevant to produce a social report instrumental in ensuring the social sustainability of the economic decisions of enterprises. Anyway, for this to happen a bridge between social reports and the official measurement of social and environmental phenomena is needed.

An analysis of the GRI indicators allowed us to verify to what extent social reports offer relevant information for the measurement of SC and well-being. About 20 indicators can be to some extent traced back to the domain of Relations within or outside the company (in respect to consumers and stakeholders). The performance indicators focused on *Labor Practices and Decent Work*, *Human Rights*, *Society* (Local community, Public policy, Corruption, Anti-competitive behavior, Compliance, etc.) and *Product Responsibility* (i.e., relationships with consumers) (Righi and Recchini, 2012).

Could a standardization of social reports made by enterprises in accordance with the GRI Guidelines be beneficial to the development of new measures and studies on SC in the perspective of the sustainable well-being? Probably yes and a pioneering step forward in this direction is the on-going collaboration between Istat and the Italian CSR Manager Network – CMN (a national association of professionals engaged in the management of socio-environmental and sustainability-related themes in companies and firms) for the standardization of definitions and classifications of the GRI based indicators, in a way that meets the requirements in use within the Italian National Statistical System. Up until now there seems to be a considerable difference between the proposed GRI definitions and what is actually collected by enterprises in terms of data. The aim of the partnership is to provide support to the CSR Manager Network (CMN) to activate amongst the enterprises a system of data collection on a regular basis to measure the most significant CSR annual trends in a way that makes the indicators used comparable with official statistic data. Leading public companies (i.e. listed

on Stock Exchange) participate in the experiment. The partnership is focusing on 10 GRI indicators related to economic or environmental performance, to human capital and relations within the enterprise: Total workforce by employment type, employment contract, and region, broken down by gender. (LA1); Total number and rate of new employee hires and employee turnover by age group, gender, and region (LA2); Hours of Training (LA10); Equal remuneration for women and men (LA14); Return to work and retention rates after parental leave, by gender (LA15). For all these indicators Istat offers detailed tools. The indicator closest to the SC concept is the Number of incidents of discrimination and corrective actions taken (HR4) belonging to the pillar of *Human rights*; other four indicators on *Labour Practices and Decent Work* are also considered. Unfortunately, indicators related to the domain *Society* have not yet been considered, because they refer to issues not covered by the NSI data collection. In the next future more research has to be developed in this specific field.

The GRI started following the Istat – CMN initiative and seems to be interested in promoting similar collaborations at the international level to raise awareness among enterprises of the importance of data quality. Thus, the Italian collaboration will be internationally presented as a best practice in terms of interaction on sustainability themes between the business world and the National Statistical System. This could open a great opportunity of exploitation of the social report as a new data source.

4. Conclusion

The attempt to capture the SC multidimensionality through the combination of micro-level information contained in two different sources appears to be very promising. The analysis identified a set of indicators for the various SC dimensions to investigate the characteristics of individuals associated with different values of these dimensions. The results, which allow the identification of a minimum set of information to include in a SC *ad hoc* module of a future survey, allow to overcome the traditional finding of North-Centre *vs.* South division of the regions according to SC endowment and this could not be identified on the basis of only one of the two surveys used.

But the on-going experiences of data collection and in the production of reliable measures of SC clearly show that the focus is still placed on the need for new information sources. The conventional surveys used in research on social capital are largely inadequate, as demonstrated by the experience of the National Council for Economics and Labour (NCEL) – the Istat Project on Fair and Sustainable Well-being. Such new sources should be able to ensure the multidimensional measurement of the concept, expanding the understanding of SC together with the well-being and the socio-economic sustainability. To catch the actual individual behaviour in real situations new tools are needed, such as anchoring vignettes and stories, this of course implies a profound renewal in the research design and in the measurement techniques.

From the enterprise side new opportunities in the data collection, especially on trust and social relations within and outside enterprises, could come from the standardization of definitions and classifications of the GRI indicators in social reports. A first step forward in this direction is the on-going collaboration between Istat and the Italian CSR Manager Network for the harmonisation of indicators calculated according to the GRI guidelines with definitions and classifications of the Italian National Statistical System.

About the author

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Appendix A. Correlation matrices

Table A.1. Correlation among variables of "Civic SC"

	volunt	unpaidw	meetvol	polit	debpol	news	distrustpol	notintepol	finpa	meetpol	electspeech	unpaidwpol
volun	1											
unpaidw	0.74	1										
meetvol	0.96	0.63	1									
polit	0.62	0.54	0.55	1								
debpol	0.36	0.42	0.33	0.47	1							
news	0.70	0.70	0.63	0.80	0.45	1						
distrustpol	0.66	0.60	0.59	0.80	0.48	0.88	1					
notintepol	0.48	0.41	0.34	0.85	0.41	0.82	0.83	1				
finpa	0.52	0.85	0.37	0.39	0.45	0.61	0.52	0.42	1			
meetpol	0.26	0.58	0.24	-0.04	0.58	0.22	0.20	-0.11	0.60	1		
electspeech	-0.02	0.43	-0.01	-0.23	0.38	0.00	-0.03	-0.30	0.50	0.90	1	
unpaidwpol	0.19	0.32	0.15	-0.06	0.45	0.20	0.20	-0.03	0.52	0.81	0.70	1

Table A.2. Correlation among variables of "Relational SC"

	ecopart	cultpart	profpart	finas	union	unpaidwunion	Friends
ecopart	1						
cultpart	0.61	1					
profpart	0.73	0.85	1				
finas	0.71	0.86	0.88	1			
union	0.62	0.44	0.73	0.66	1		
unpaidwunion	-0.10	-0.23	0.06	0.07	0.33	1	
friends	-0.33	-0.20	-0.10	-0.41	-0.22	-0.13	1

Table A.3.Correlation among variables of Trust and Values/Norms

	gentrust	*trustW*	*trustS*	*valueR*	*valueG*
gentrust	1				
trustW	0.26	1			
trustS	0.04	0.07	1		
valueR	-0.02	0.04	0.07	1	
valueG	-0.02	0.06	0.08	0.75	1

Table A.4. Correlation between variables and the Principal Components

Social participation		*Civic awareness*		*Trust*		
Variable	Component load	Variable	Component load	Variable	Component load	
Unpaidw	0.60	polit	0.62		Comp. 1	Comp. 2
Partas	0.61	news	0.53	Gentrust	0.68	-0.22
Finas	0.50	dibpo	0.57	Trusts	0.27	0.97
% var explained	0.62	% var explained	0.51	Trustw	0.69	-0.16
Eigenvalue 1st comp.	1.85	Eigenvalue 1st comp.	1.57	% var explained	0.59	
Eigenvalue 2nd comp.	0.70	Eigenvalue 2nd comp	0.79	Eigenvalue 1st comp.	1.28	
				Eigenvalue 2nd comp.	0.96	
				Eigenvalue 3rd comp.	0.74	
Particularistic social participation		*Political participation*		*Values*		
Variable	Component load	Variable	Component load	Variable	Component load	
Union	0.70	Party	0.70	Valuer	0.70	
Profpart	0.70	Finpa	0.70	Valueg	0.70	
% var explained	0.57	% var explained	0.80	% var explained	0.80	
Eigenvalue 1st comp.	1.15	Eigenvalue 1st comp.	1.40	Eigenvalue 1st comp.	1.65	
Eigenvalue 2nd comp.	0.84	Eigenvalue 2nd comp.	0.50	Eigenvalue 2nd comp.	1.31	