



*Social Capital Initiative  
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# **SOCIAL CAPITAL: THE MISSING LINK?**

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## FOREWORD

There is growing empirical evidence that social capital contributes significantly to sustainable development. Sustainability is to leave future generations as many, or more, opportunities as we ourselves have had. Growing opportunity requires an expanding stock of capital. The traditional composition of natural capital, physical or produced capital, and human capital needs to be broadened to include social capital. Social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions in which they are embedded. Social capital is the glue that holds societies together and without which there can be no economic growth or human well-being. Without social capital, society at large will collapse, and today's world presents some very sad examples of this.

The challenge of development agencies such as the World Bank is to operationalize the concept of social capital and to demonstrate how and how much it affects development outcomes. Ways need to be found to create an environment supportive of the emergence of social capital as well as to invest in it directly. These are the objectives of the Social Capital Initiative (SCI). With the help of a generous grant of the Government of Denmark, the Initiative has funded a set of twelve projects which will help define and measure social capital in better ways, and lead to improved monitoring of the stock, evolution and impact of social capital. The SCI seeks to provide empirical evidence from more than a dozen countries, as a basis to design better development interventions which can both safeguard existing social capital and promote the creation of new social capital.

This working paper series reports on the progress of the SCI. It hopes to contribute to the international debate on the role of social capital as an element of sustainable development.

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# THE INITIATIVE ON DEFINING, MONITORING AND MEASURING SOCIAL CAPITAL

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# **SOCIAL CAPITAL: THE MISSING LINK?**

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# SOCIAL CAPITAL: THE MISSING LINK?

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Sustainable development has been defined as a process whereby future generations receive as much capital per capita as — or more than — the current generation has available (Serageldin 1996a, 1996b). Traditionally, this has included natural capital, physical or produced capital, and human capital. Together they constitute the wealth of nations and form the basis of economic development and growth. In this process the composition of capital changes. Some natural capital will be depleted and transformed into physical capital. The latter will depreciate, and we expect technology to yield a more efficient replacement. This century has seen a massive accumulation of human capital.

It has now become recognized that these three types of capital determine only partially the process of economic growth because they overlook the way in which the economic actors interact and organize themselves to generate growth and development. The missing link is social capital. At this broad level of conceptualization there is little disagreement about the relevance of social capital. There is, however, no consensus about which aspects of interaction and organization merit the label of social capital, nor in fact about the validity of the term *capital* to describe this. Least progress has been made in measuring social capital and in determining empirically its contribution to economic growth and development. This chapter will address each of these issues in turn.<sup>1</sup>

## **The Concept of Social Capital**

Countries with similar endowments of natural, physical, and human capital have achieved very different levels of economic performance. So have regions or cities within countries, and even communities within regions or cities.

- Case 1: The high growth rates of the East Asian "miracle" economies, relative to other parts of the world, can only in part be explained by conventional factors such as investments in human and physical capital and technology. Government policies provided an enabling environment, characterized by institutional arrangements and organizational designs that enhanced efficiency, exchange of information, and cooperation between government and industry (World Bank 1993; Stiglitz 1996).
- Case 2: In a study of Italy, Putnam argues that the higher density of voluntary associations among people in northern Italy explains the region's economic success relative to southern Italy, where such associations are less frequent (Putnam and others 1993).

- Case 3: After the 1991 fall of Somalia's government civil disorder prevailed and incomes declined throughout most of the country. An exception was the port city of Boosaaso, where a local warlord organized a security force and a council of clan elders with support from local people. Trade flourished and incomes improved (Buckley 1996).
- Case 4: In Gujarat, India, violent confrontations between local people and government officials over the way forests were managed led to economic stagnation. After communities were mobilized and joint forest management was instituted, conflicts declined and land productivity and village incomes rose (Pathan and others 1993).

Each one of these cases displays an aspect of social capital and its contribution to economic growth.

The term *social capital* has found its way into economic analysis only recently, although various elements of the concept have been present under different names for a long time. The economic literature on the role of institutions, which goes back at least to the 1920s, is especially relevant. The focus on institutions has been revived recently in the "new institutional economics" literature. In the political science, sociological, and anthropological literature social capital generally refers to the set of norms, networks, and organizations through which people gain access to power and resources, and through which decision making and policy formulation occur.<sup>2</sup> Economists have added the focus on the contribution of social capital to economic growth. At the microeconomic level this is seen primarily through the ways social capital improves the functioning of markets. At the macroeconomic level institutions, legal frameworks, and the government's role in the organization of production are seen as affecting macroeconomic performance.

The most narrow concept of social capital is associated with Putnam (Putnam 1993; Putnam and others 1993). He views it as a set of "horizontal associations" between people: social capital consists of social networks ("networks of civic engagement") and associated norms that have an effect on the productivity of the community. Two empirical presumptions underlie this concept: networks and norms are empirically associated, and these have important economic consequences. While originally this concept of social capital was limited to associations having positive effects on development, recently it has been relaxed to include groups that may have undesirable outcomes as well, such as associations with rent-seeking behavior (for example, the Mafia in southern Italy) and even militia. The key feature of social capital in this definition is that it facilitates coordination and cooperation for the mutual benefit of the members of the association (Putnam 1993).

This relaxation of the concept brings it a big step closer to operationalization and measurement. In principle it is fairly straightforward to count civic associations, their membership, and the number of times they meet. However, if such associations are only considered as social capital if they achieve desirable outcomes, this implies that somehow agreement must be obtained on what constitutes desirable outcomes. Further, it needs to be determined whether each association strives in effect for such an outcome. In practice there

are likely to be major judgment and consensus-building problems associated with constructing a list of desirable outcomes and the effort may well not be feasible in most settings.

A second and broader concept of social capital was put forth by Coleman (1988),<sup>3</sup> who defines social capital as "a variety of different entities, with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of actors — whether personal or corporate actors — within the structure" (p. 598). This broadens the concept to include vertical as well as horizontal associations, and also the behavior among other entities such as firms.<sup>4</sup> Vertical associations are characterized by hierarchical relationships and an unequal power distribution among members. Clearly, this wider range of associations covers a wider range of objectives — positive as well as negative. Coleman is explicit about this: "A given form of social capital that is valuable in facilitating certain actions may be useless or even harmful for others" (p. 598). In fact, this view of social capital captures social structure at large, as well as the ensemble of norms governing interpersonal behavior.

A third and most encompassing view of social capital includes the social and political environment that enables norms to develop and shapes social structure. In addition to the largely informal, and often local, horizontal and hierarchical relationships of the first two concepts, this view also includes the more formalized institutional relationships and structures, such as government, the political regime, the rule of law, the court system, and civil and political liberties. This focus on institutions draws on North (1990) and Olson (1982), who have argued that such institutions have an important effect on the rate and pattern of economic development.

### *How Does Social Capital Affect Economic Outcomes?*

There is growing evidence that social capital, under any of the three definitions, can have an impact on development outcomes — growth, equity, and poverty alleviation. Associations and institutions provide an informal framework to organize information sharing, coordination of activities, and collective decision making. Bardhan (1995) has argued that what makes this work is peer monitoring, a common set of norms and local-level sanctions. The well-known case of the Grameen Bank in Bangladesh illustrates how these factors can be used to overcome the poor's lack of access to credit markets. However, Bardhan also warns against overstating the role of local institutions: local overlords may find it easy to capture local institutions, externalities of development may surpass the working area of local institutions, and they may have little or no revenue-raising capacity. Hence what is needed is a balanced view of the role of the central, state, and local-level institutions. This suggests that three definitions of social capital are not really alternative views, but rather complementary dimensions of the same process (box 6.1).

*Information sharing.* Decisions by economic agents are often inefficient because they lack adequate or accurate information. In some circumstances one agent derives a benefit from relaying incorrect information to the other. Credit or employment applications are examples of such a situation. In other circumstances "optimal" decisions are difficult because of

uncertainty over a future state of the world and the response of other agents to that state. These situations represent cases of market failure.<sup>5</sup> Social capital, under any of its definitions, can contribute to alleviating such failures. Social capital does not remove the uncertainty, but it may create mutual knowledge about how agents will respond to different states. It may also serve as an enforcement mechanism to ensure that these expectations about mutual behavior are in fact realized. This reduces contracting costs.

**Box 6.1. Three views on social capital: common features**

The three views on social capital broaden the concept from mostly informal and local horizontal associations to include hierarchical associations and formalized national structures, such as government and the rule of law. Yet they share several common features:

- All link the economic, social, and political spheres. They share the belief that social relationships affect economic outcomes and are affected by them.
- All focus on relationships among economic agents and how the formal or informal organization of those can improve the efficiency of economic activities.
- All recognize the potential created by social relationships for improving development outcomes but also recognize the danger for negative effects. Which outcome prevails depends on the nature of the relationship (horizontal versus hierarchical) and the wider legal and political context.
- All imply that “desirable” social relationships and institutions have positive externalities. Because these cannot be appropriated by any one individual, each agent has a tendency to underinvest in social capital; hence, there is a role for public support of social capital building.

Group-based lending schemes — from tontine in West Africa to the Grameen Bank — work because members have better information on each other than banks do. In general, information problems can be particularly severe in capital markets. One response was the so-called Deliberation Councils in Japan and Korea, which managed competition among firms for credit and foreign exchange in a transparent process that encouraged cooperative behavior and information sharing among firms by taking away incentives for rent-seeking behavior (World Bank 1993; Campos and Root 1996). The rule of law and a well-functioning court system (elements of social capital in its broadest definition) also contribute to reducing uncertainty by enforcing contracts and thus providing a priori information to contracting parties about the penalties for noncompliance. In the absence of effective courts many informal associations internalize this policing role for their members. A striking example is that of diamond merchants, who often trade millions of dollars worth of diamonds with a handshake. However, failure to deliver will irrevocably lead to expulsion from the group — and all members realize this. Unfortunately, this mechanism also works for groups pursuing “undesirable” outcomes — which makes criminal mafias more efficient as well.

The information-sharing role of social capital is of key importance for poverty alleviation. The case of mutual credit groups is one important example. These groups permit the poor to overcome one of their main constraints, namely access to credit. The poor also generally have limited ability to cope with risk and hence are more vulnerable to income fluctuations. Access to insurance against future calamities is an important aspect of their

survival strategy. As with credit, the poor can usually not access the formal insurance market, and local associations can provide an informal substitute. Often this occurs within a kinship context and consists of a series of mutual obligations and rights — the rural-to-urban migrant sends money back to his village of origin, but can count on food shipments from the village if he encounters hard times. A farmers' cooperative agreeing to share resources in case of a harvest failure is another example. Donor agencies concerned with poverty alleviation can enhance the effectiveness of their strategies by stimulating the formation of social capital as part of these strategies. Nevertheless, it needs to be pointed out that mutual credit and insurance groups have limitations. In particular, they are vulnerable to groupwide shocks (for example, weather problems), which more formal credit and insurance mechanisms would be able to diversify against.

*Coordination of activities.* Uncoordinated or opportunistic behavior by economic agents can also lead to market failure. This can occur as a result of imperfect information (see above) but also simply because the benefits of not complying with an agreement or an expected line of behavior (a "norm") are greater than the expected penalty. This has been the main reason why a number of irrigation projects have failed — some farmers could successfully deviate water to the detriment of others or did not contribute sufficiently to maintenance costs because formal or social means of imposing equal sharing were absent. Effective social capital in the form of water user groups can overcome such problems (Meinzen-Dick and others 1995; Ostrom 1995). The example cited at the beginning of this chapter relating to forest management — whereby villages and government jointly manage a common resource — also falls in this category.<sup>6</sup>

Associations reduce opportunistic behavior by creating repeated interaction among individuals, which enhances trust (Dasgupta 1988). This "backward-looking" motivation for trust has been discussed in the social psychology literature. Trust can also be "forward looking" and based on the perception of retaliation in case of untrustworthy behavior. This basis for trust has been the subject of game theory. It is not always necessary (though often preferred) that interaction among individuals occurs in the same activity where a risk for opportunistic behavior exists. For example, repeated credit transactions among the members of a tontine will strengthen trust, reduce uncertainty about repayment behavior, and in effect reduce transaction costs overall. However, members of a soccer club who regularly play together may still be more inclined to lend money to each other than to strangers, even though here the potential penalty is less: exclusion from the soccer club may have less serious consequences than exclusion from the tontine. A cohesive association creates trust<sup>7</sup> and changes, in a way, the identity and the objective function of the economic agent: utility of the group is partly or wholly substituted for personal utility, and it is the former that is maximized. Although this can occur in horizontal and vertical associations, the creation of trust and reciprocity is more likely in horizontal groups, especially those based on kinship or other dense networks (for example, based on gender, ethnicity, or caste). For that reason, for example, the Grameen Bank as well as many informal rotational savings and credit associations rely primarily on groups of women.

One implication of a trust-based functioning of networks and associations is that it is helped by stability of membership and damaged by mobility. A development path characterized by massive rural-to-urban migration thus runs the risk of eroding social capital. Rural associations may be thinned out by departing members and lose critical density. Urban areas may not readily provide a suitable environment for recreating these associations. However, in some cases migrants have formed urban groups (often along ethnic lines or by common region of origin) to share information about available jobs and to channel this information back to their place of origin to help prospective migrants. Like migration, involuntary resettlement due to dams or other development projects can damage social capital.

Ironically, the efficiency of markets itself may also undermine the existence of networks in the long-term. Large anonymous markets can be more efficient than networks because the best buyer or seller may not be part of the network. If the development path is supported by a solid court system and contract enforcement, anonymous markets will replace the "named" transactions within networks over time, with gains for all participating economic agents. If one adheres to a narrow definition of social capital, this will be registered as a decline of social capital. But in the broader concept the same phenomenon will be seen as substitution of one form of social capital (the rule of law) for another (horizontal associations). This provides one reason why a broader definition of social capital seems preferable — to better understand the social dynamics that accompany economic development.

*Collective decisionmaking.* This is a necessary condition for the provision of public goods and the management of externalities to market processes. It is a basic *raison d'être* for government. However, just as not all government decisions are in the best interest of their constituencies, local and voluntary associations do not always effectively maximize their joint utility. The extent to which they do this depends upon how well they address the information and incentive problems discussed earlier. One important aspect of this is equity.

There is some evidence that local institutions are more effective at enforcing common agreements and cooperative action when the local distribution of assets is more equal and the benefits are shared more equally. This then provides a "local" case of how efficiency and equity go together: better sharing provides an incentive for better coordination in managing local public goods, which increases productivity for everyone.

*A caveat.* A word of caution is necessary following this discussion. Social capital is no panacea for all market failures or impediments to development due to information, coordination, or collective decision making problems. There are many examples of local associations that have made a positive difference. However, by themselves these associations may not always matter. If a village lacks economic opportunities, credit associations may not be able to raise incomes. This is simply to say that social capital — like natural, physical, and human capital — has limited value if not combined with other forms of capital. One important attribute of social capital is that it can make the other types of capital and their productive combination more efficient. We return to this point in the next section.

*Macro-level social capital.* Civic associations promote efficient market outcomes by sharing information, aligning individual incentives with group objectives, and improving collective decision making. This microfocus on markets is, however, only part of the story. Even if social capital is defined only at the microlevel (the narrow definition, of horizontal associations, or the intermediate definition, which includes hierarchical associations), it must be recognized that market outcomes are influenced by the macroeconomic and political environment as well. The latter can be an enabling environment, enhancing the effect of civil associations (as was arguably the case in the East Asian success stories) but the macro environment can also damage or undo the effect of local-level social capital. Just as it makes little sense to assess a given investment project without looking at its sector as a whole and the relevant macroeconomic policy environment, it makes little sense to consider local associations in isolation.

The ways in which social capital affects macroeconomic outcomes have been investigated in the "new institutional economics" framework associated with North, and with the "aggregated social capital" argument associated with Olson. The basic argument is that differences in per capita incomes across countries cannot be explained by the distribution of productive resources per capita: land and natural resources, human capital, and produced capital (including technology). However, countries also differ in institutions and other forms of social capital and in public policies. These determine the returns that a country can extract from its other forms of capital. Olson argues that low-income countries cannot obtain large gains from investment, specialization, and trade (even if they have a large resource base) because they lack the institutions that enforce contracts impartially and secure property rights over the long run, and because they have misguided economic policies.

The importance of macro-level social capital is illustrated dramatically in some of the transition economies of Eastern Europe and the former Soviet Union. The sudden disappearance of government from many social and economic functions has led to a collapse of trust and forced people to rely on local networks and informal associations. Richard Rose's "new democracies barometer" has attempted to measure this phenomenon (Rose 1995b). One effect is the withdrawal of people from the "official" economy and the reliance upon multiple informal economies to satisfy most needs. Informal activities include growing food, repairing houses, and exchanging help with friends. While in a well-functioning market economy these activities may be a hobby or a reflection of friendship, in transition this "social economy" exists out of necessity. In Ukraine, for example, three-fourths of the households are involved in such activities (Rose, 1995a). In Russia the transition has led to what Rose has called an "hourglass society" (Rose 1995c). At the base there is a rich social life, consisting of strong informal networks relying on trust between friends and on face-to-face interaction. The Russian proverb, "A hundred friends are worth more than a hundred rubles," epitomizes the importance of these networks. At the top there is also a rich political and social life among the elite, who compete among themselves for power and wealth. However, the links between top and base are very limited and are characterized by civic distrust by the base. Fewer than one in three Russians expect fair treatment by the police or their municipal office (the post office is the most trusted institution). It is difficult to conceive of sustainable economic growth in

Russia without a change for the better in the linkages between micro- and macro-level institutions.

### *Is It Capital?*

The examples given so far make it clear that social capital is an input into the development process together with the other forms of capital. However, it is also an output of this process — a feature it shares with human capital. Education is worth pursuing for its own sake, and a well-educated population is an important outcome of successful development. Likewise, many people would agree that a rich network of civic associations and a well-functioning set of government institutions are worth having, independent of their effect on future economic growth. Human and social capital thus share the attribute that they are simultaneously a consumption good and an investment. The critical difference is that education can be embodied in one individual and can be acquired by one individual regardless of what other people do. By definition social capital can only be acquired by a group of people and requires a form of cooperation among them.

This gives social capital an inevitable public good character and has implications for its production (Coleman 1988, 1990). In particular, like all public goods, it will tend to be underproduced relative to the social optimum unless the group responsible for its production can internalize the externality involved. This is why horizontal associations, characterized by equitable power sharing among members, tend to be more successful at generating social capital. Members are more likely to contribute because they have a better chance of obtaining their fair share of the benefit.

Clearly then, in most cases it is not costless to produce social capital. It requires resources — especially time. The amount of social capital that will be produced is therefore in part a function of the opportunity cost of time and the expected return from the social capital (that is, the extent to which an economic agent will enjoy the public good that is created). Which group is best suited to producing social capital depends largely on the scope of the created externality and thus the size of the group needed to internalize it effectively and avoid free riders: in the case of tontine it is local; in the case of the rule of law it is national and the central government needs to play the essential role. However, as an externality, social capital can come to be a by-product of other production processes. For example, if the workers in a factory develop associations for leisure activities, which in turn reduce crime in the neighborhood, the "cost" of bringing people together and developing trust is largely absorbed in the factory's production process. Certainly, the cost is less than if those associations were to be created by people not knowing each other through a common workplace.

While there is a growing body of empirical evidence on the benefits of social capital (see next section), there are very few data on the cost side. In part this has to do with the difficulties of measuring social capital. It is easier to determine the cost of a machine or building, because it is well defined, than the cost of creating an association or a certain level of trust. However, investment decisions for social capital, like any form of capital, require a comparison of costs and benefits. This comparison is done implicitly by the individuals who

set up or join an association, but governments, donors, or other institutions who wish to invest in social capital may well want to make more explicit calculations. As a first step this will require improved operational definitions of social capital.

The process of producing economic growth requires the combination of different types of capital. Social capital is one of them, but it has a unique feature in that it also enhances the efficiency of the combination process itself. In Putnam's (1993) words: "Social capital enhances the benefits of investment in physical and human capital" (p. 36). In other words it is not just an input into the production function, but it is also a shift factor (or exponent) of the entire production function. As such it is more akin to technology.

The application of social capital in development is not a distribution-neutral process. The better organized segments of society may well succeed in affecting economic policy to their own advantage and to the detriment of other groups or even to society at large. There can be significant concentrations of social capital in some communities with few ties to other communities. Social capital accumulation can be segmented along spatial or ethnic lines (Fox 1995). In principle there is thus no guarantee that enhancing social capital will lead to a more equitable society. This is similar, of course, to what has happened historically when human capital accumulation started: initially, when education was an elite privilege, it led to increased inequality of economic outcomes. The more the acquisition of education became universal, the more the distribution of economic benefits became equalized. Although this has not yet been demonstrated empirically, the same process is likely to happen with social capital. The more widespread it is, the more likely it will contribute to achieving equity.

Although, as we have argued, social capital can promote and sustain economic development in many ways, it should be emphasized that the historically and cross-sectionally strong correlation between human capital acquisition and levels of development has not yet been demonstrated empirically for social capital. No country has achieved sustained economic growth without high levels of education, but some highly developed economies have low and arguably declining levels of social capital, as measured, for example, through rising crime rates, declining family and kinship cohesion, and falling trust in government, and participation in the political process. Analysis by the Inter-American Development Bank suggests that in some Latin American countries the paths of economic development have so weakened prior social and institutional relationships that the resulting potential for social conflict may undermine sustainable economic growth. Such situations underline the need for interventions aimed at offsetting eroding social capital and creating new forms of social capital conducive to sustainable development.

## Measuring Social Capital and Its Impact

Measurement presupposes that one can define fairly well what needs to be measured. As the previous section indicated, definitions of social capital vary greatly. This makes it inherently difficult to propose a list of indicators for social capital. They will have to evolve as the conceptual definition and, more important, the operational definition of social capital are developed. Meaningful use of indicators requires a conceptual framework within which they can serve to assess a current state, to measure linkages between policy and outcome variables, and to assess policy options (box 6.2). Such a framework is further advanced for the narrower definitions of social capital (micro-institutional in focus) than for the broader definitions, which attempt to link institutions at the macrolevel with economic outcomes. One can thus expect to define a more suitable set of indicators for the notions of social capital that focus on horizontal and hierarchical local associations. Of course this does not imply that actual data exist more abundantly at that level. Practically, the selection and development of indicators for social capital can proceed along two lines: (1) according to the breadth of relationships and institutions involved; and (2) according to the types of impact social capital has on the development process, in which the key dimensions are growth, equity, and poverty alleviation.

For the narrowest concept of social capital, one can inventory civic associations and their attributes (number of members; frequency of meetings; dimensions of membership along ethnic, kinship, or other lines; type of decision making). In practice such inventories are rarely available, and one typically gains insights into them only through anthropological or sociological case studies, which tend to have a limited geographical focus. The value of such studies lies primarily in analyzing the dynamics of creating associations (how, why, and by whom are they created?) and their effectiveness. As such they are a complementary effort to that of inventorying associations.

### Box 6.2 Desirable properties of indicators

The following is a nonexhaustive list of properties that indicators should possess. Indicators must:

- Be developed within an agreed on conceptual and operational framework
- Be clearly defined and easy to understand
- Be subject to aggregation (from household to community, from community to nation)
- Be objective (be independent of the data collector)
- Have reasonable data requirements — either available data or data that can be collected at limited cost and within the capacity of the country's statistical apparatus
- Have "ownership" by users
- Be limited in number
- Reflect input, process, or outcome (or, as used in the environment literature, pressure, state, response).

Work is currently under way at the World Bank to collect data for a profile of local institutions in twenty countries. The context is how decentralization can help in implementing effective rural development strategies and whether it results in better targeting to the poor. The study aims to collect data on the institutions that function at the local level in the provision of various services (health, education, agricultural extension, water supply, forestry). These institutions include nongovernmental organizations (NGOs) as well as the

local political and administrative organization. In three countries (Bolivia, Burkina Faso, Indonesia) this profile will be further detailed and supplemented with data at the household level. Specifically, the extent of household participation in different local organizations, and the way in which the organizations contribute to different dimensions of household well-being will be explored through a household survey. In order to find out which associations have the most impact on development outcomes and how they do so, detailed information on the associations will be collected: type of organization (formal or informal), degree of internal homogeneity (by gender, ethnicity, occupation), membership requirements, and the type of services provided. The availability of measures of economic and social outcomes, at both the village and the household level, will make it possible to test empirically hypotheses regarding the impact of social capital on poverty, effectiveness of public programs and projects, and access to health, education, and credit.

For the intermediate conceptualization of social capital, which includes hierarchical associations, the same indicators of associations can be used, except that they now cover a wider range of social relationships. In the macro conceptualization, legal and judicial systems and aspects of government functioning (such as the ability to enforce contracts) all become part of social capital. This approach solves, in part, the measurement problem because the social norms and networks are anchored in an institution or other "visible" structure that can be identified.

Clearly, to capture the full scope of social capital, measurement has to occur and indicators need to be developed at the micro and macro levels. At the microlevel the impact of social capital is to be assessed primarily by the extent to which the association or institution contributes to making more efficient market outcomes possible (by reducing information or incentive problems) or to providing the "optimum" amount of public goods (by making collective decision making more efficient). Obviously, it is very difficult to measure this empirically since so many different factors affect market outcomes simultaneously, but this problem is really external to the definition and measurement of social capital per se. An analogy: it is possible to measure land even if it is difficult to measure how much the land contributes to value added in agriculture.

Significant and growing evidence exists that local associations and networks have a positive impact on local development and the well-being of households. Work in India has shown that such social capital enhanced the ability of the poor to allocate resources efficiently and increased their resilience to hazards (Townsend 1994). A study of 750 households from 45 villages in Tanzania suggests that social capital makes a significant contribution to household welfare. Social capital was measured by membership in groups and networks. Multivariate regression analysis established that village-level social capital was a key contributor to household welfare even after taking into account the size of household, male schooling, female schooling, household assets, market access, and agro-ecological zone. In some cases, the effect of village-level social capital outweighed that of market access or female schooling. On the other hand household-level social capital appeared to be less significant than village-level social capital (Narayan and Pritchett 1996).

Social capital can also improve the quality of education. A study of U.S. schools showed lower dropout rates in religious schools in tight communities than in other public and private schools, even after controlling religion and household financial position (Coleman 1988). In a similar vein the breakdown of networks can lead to crime and violence. A study of urban communities in Ecuador, Hungary, the Philippines, and Zambia showed that depletion of economic assets led to lower involvement in community organizations, weaker informal ties among residents, and increased crime and violence (Moser 1996).

There is much evidence that local associations play a key role in environmental management, especially where common property resources (water, forests) are concerned. This has been especially well documented in the case of irrigation and water supply projects. In Côte d'Ivoire, for example, rural water supply improved significantly after responsibility for maintenance was shifted from the national water distribution company to community water groups. Breakdown rates were reduced from 50 percent to 11 percent at a third of the cost. However, these results were sustained only in villages with a high demand for water and where well-functioning community organizations already existed (Hino 1993). Experiences with water user associations in countries as diverse as Pakistan and the United States, have indicated that sustainability depends on empowering of the participating farmers to negotiate with the relevant water authority and the installation of a framework that clearly sets out rights and benefits as well as duties and responsibilities (Meinzen-Dick and others, 1995; Narayan 1995; Ostrom 1995). Because the formation and maintenance of a water user group (or any group) demands effort and resources from the participants, the sustainability of a group is further enhanced when the stakes are high, as in the case of Côte d'Ivoire, where the demand for and value of water are high.

Regarding forests, we cited earlier the role played by community groups in Gujarat to end violence over forest management issues and to develop a joint approach between government and local people (Pathan and others 1993). In a remote area of Zimbabwe a small community took over management of wildlife resources. They negotiated the revenue-sharing process and division of responsibilities with government. The results have been better wildlife protection and increased revenue from safaris and tourism for both the local community and the government (Scoones and Matose 1993). As in the case of water associations, the keys to success include clear rules of membership, accountability, and sanctioning developed jointly between the local community and the central authority (Narayan 1995).

The links between civil society and government also affect the outcomes of government programs. A study of municipal government in northeast Brazil showed how the creation of relationships between civil servants and local associations enhanced the effectiveness of municipal programs. When the staff of a Cereia health program focused on building trust with clients in the communities in which they worked, the quality and impact of the program increased — more families were served, and infant mortality declined (Freedheim 1988).

The garment industry in Brazil and Chile is an example of the role of professional associations in solving information and incentive problems (Stone and others 1992). Brazil

has a complex regulatory system, laws are sometimes inconsistent with one another, and courts are very expensive. For day-to-day operations business has to rely on informal alternatives to govern transactions with customers or suppliers, especially when credit is involved. Brazilian garment entrepreneurs worked out an effective informal credit information system, which places a premium on an untarnished reputation. Nevertheless, contracts remain insecure and are frequently renegotiated, even up to the very moment of delivery. Brazilian entrepreneurs must therefore adopt risk-reducing strategies, such as producing only noncustomized items and reducing the size of orders, which ultimately hurts the expansion of business. In contrast, in Chile legal simplicity and consistent enforcement of contracts have led to a more secure contracting process and very few renegotiations. This has reduced the default rate on debt. This case study clearly suggests that there is a limit to the extent to which informal associations can replace the rule of law and a formal court system. This underlines both the role of social capital in making business possible and the role of government in providing an enabling environment. Simplicity, transparency, and consistency need to be the key features of this environment. A study of Peru further illustrated how the sheer complexity of laws and regulations can undermine their effectiveness and provide strong disincentives to economic agents to adhere to formality. In Peru it led to the shifting of economic transactions to an informal sector not protected by formal law, but functioning thanks to informal substitutes (de Soto 1989).

Research also shows that the impact of social capital can be indirect. Rural economic organizations in Bolivia succeeded in pushing up producer prices in local markets so that members as well as nonmembers benefited (Tendler and others 1982). This impact depends, however, on the nature of the organization. In Bolivia and Ecuador rural organizations enhanced the poor's access to markets and government institutions, but the membership principles and barriers to entry of each organization influenced who did and did not benefit from the links with government agencies (Bebbington 1996). More generally, Olson has shown how strong lobbying organizations can benefit their own members, but can have adverse impacts on economic development through special interest group influence on policymaking.

Evidence on the positive impact of hierarchical associations is more limited and ambiguous. In Nigeria such groups reduced food insecurity by giving poor people moral entitlements on which to draw during famine years (Watts 1983). In the case of Boosaaso, Somalia, cited at the beginning of this chapter, hierarchical clan-based and intergenerational relationships became the means by which local stability and security were ensured, which resulted in a big upturn of economic activity.

At the macro-level, social capital becomes the fourth category of capital in the production function (with physical, natural, and human capital). Its contribution to economic growth, investment, or equity can then be assessed in two ways. A first approximation is obtained from accounting-type production function models, which explain GDP growth as a function of growth of labor, capital, and technology. After accounting for physical and natural capital, a "residual" is obtained that lumps together social and human capital. Separating social from human capital requires a direct estimation of human capital. This has not yet been

done successfully. The growth accounting models routinely rely on enrollment figures, but this has been criticized. In principle the advantage of the residual approach is that it identifies the contribution of social capital in its entirety (at least if one accepts the assumption that growth is a sole function of the four identified factors of production). An example of this approach is the earlier cited East Asian Miracle study, which found that growth accounting models could only explain 17 to 36 percent of the difference in growth performance between East Asia and other parts of the world (World Bank 1993).<sup>8</sup>

An alternative method is the direct estimation of the impact on growth, investment, or equity of specific components of social capital. There is a rapidly growing body of literature that has attempted to do this, often focusing on the political or democratic aspects of society. Indicators include measures of political instability (government changes, coups); Gastil's measures of civil and political liberty; measures of expropriation risk, corruption, enforcement of contracts and property rights; and measures of political and economic discrimination and social disintegration (crime, suicide, riots, illegitimacy, divorce, and so on). Box 6.3 contains a partial list of such variables, which have been used in cross-country analyses and are therefore available for a number of countries.

### 6.3 Indicators of Social Capital

The following indicators have all been used in empirical studies. Indicators of horizontal associations take a microperspective and typically have been collected for analysis within a country. The other sets of indicators have been calculated at the national level and have been used in cross-country research.

#### *Horizontal associations*

Number and type of associations or local institutions	Extent of trust in trade unions
Extent of membership	Perception of extent of community organization
Extent of participatory decisionmaking	Reliance on networks of support
Extent of kin homogeneity within the association	Percentage of household income from remittances
Extent of income and occupation homogeneity within the association	Percentage of household expenditure for gifts and transfers
Extent of trust in village members and households	Old-age dependency ratio
Extent of trust in government	

#### *Civil and political society*

Index of civil liberties (Gastil, Freedom House)	Index of democracy
Percentage of population facing political discrimination	Index of corruption
Index of intensity of political discrimination	Index of government inefficiency
Percentage of population facing economic discrimination	Strength of democratic institutions
Index of intensity of economic discrimination	Measure of "human liberty"
Percentage of population involved in separatist movements	Measure of political stability
Gastil's index of political rights	Degree of decentralization of government
Freedom House index of political freedoms	Voter turnout
	Political assassinations
	Constitutional government changes
	Coups

#### *Social Integration*

Indicator of social mobility	Other crime rates
Measure of strength of "social tensions"	Prisoners per 100,000 people
Ethnolinguistic fragmentation	Illegitimacy rates
Riots and protest demonstrations	Percentage of single-parent homes
Strikes	Divorce rate
Homicide rates	Youth unemployment rate
Suicide rates	

#### *Legal and governance aspects*

Quality of bureaucracy	Repudiation of contracts by government
Independence of court system	Contract enforceability
Expropriation and nationalization risk	Contract-intensive money (currency/ M2)

One study of twenty-nine countries included direct measures of trust and civic cooperation (taken from the World Values Survey) in a cross-country growth equation, and found that each variable had a significant positive effect, after controlling for other determinants of growth. The importance of trust was found to be greatest in low-income countries, where it is assumed to operate as a substitute for formal institutions that enforce property rights and contracts (Knack and Keefer 1996).

Analyses of cross-country data have also been undertaken in which the regression model includes the political regime as an explanatory variable. Civil and political liberties were found to have a positive correlation with growth, while repressive regimes yield lower growth rates (Scully 1988; Grier and Tullock 1989; Barro 1989). Political instability has also been associated empirically with lower growth. However, these correlations have failed to support conclusively a causal model and competing theories abound. For example, it has been argued that freedom enhances market efficiency and economic performance, while others claim that rapid growth requires controls and reduced freedom. Still others see freedom affecting growth mainly through investment behavior (de Haan and Siermann 1996). Political factors can influence not only national economic performance, but also that of development projects. A study of World Bank-financed projects showed that in countries with the best civil liberties the economic rate of return of these projects was significantly higher than in the countries with the worst civil liberties, after controlling for a variety of other determinants of project performance. However, political regimes (democracy versus non-democracy) and political liberties did not play a significant role in project performance (Isham and others 1995).

Economists often argue that government's main economic role is the enforcement of property rights and the management of externalities to economic processes (including public goods). It stands to reason, therefore, that economic growth is likely to be hampered when these functions are not properly undertaken. Some of the transition economies are a case in point, because they have not yet had sufficient time to establish a well-functioning and well-integrated legal framework and judicial system to enforce contracts and property rights. Likewise, the management of externalities is more of a challenge in a market economy than in a controlled economy (where, by definition, they are internalized since the government controls the economic processes that generate them). Some empirical studies have found that variables measuring contract enforcement, expropriation risk, corruption, and quality of government bureaucracy are powerful explanatory factors of growth rates, in some cases with effects as strong as those of education (Knack and Keefer 1995). Furthermore, countries with formal institutions that effectively protect property and contract rights provide a more conducive environment for trust and civil cooperation to develop (Knack and Keefer 1996).

Other studies have gone beyond the political and government factors and looked at the effects of social integration and disintegration on economic performance. Again, the transition economies of Eastern Europe and the former Soviet Union provide some powerful evidence of the catastrophic interaction that can occur between economic and social decline. The trouble is that here too, to cite Klitgaard and Fedderke (1995), "there is no agreed upon theory to apply." Hence, investigations are largely inductive, seeking for meaningful correlation. The evidence so far seems to indicate that good economic performers score higher on some dimensions of social integration and stability of social institutions but not on others. Those aspects of social integration linked to the political process seem to matter most, which is in line with the previously discussed studies focusing explicitly on the political regime (Klitgaard and Fedderke 1995).

One of the most disruptive forms of social disintegration is ethnic conflict. It destroys physical capital, disrupts the economy, deteriorates human capital, and dissolves social capital. More than half the world's low-income countries have experienced conflict during the past ten years. Of those countries, thirty have had more than 10 percent of their population dislocated, and in ten countries 40 percent of the population has been dislocated. Ethnicity-based conflict is emerging as a key factor contributing to Africa's economic decline. Studies have suggested that ethnic diversity may lead to increased civil strife and political instability. Ethnically fragmented societies are prone to competitive rent-seeking behavior by the different ethnic groups and have difficulty agreeing on public goods like education, infrastructure, and good policies. The role of ethnic diversity in affecting growth performance has been quantified in a cross-country study of Sub-Saharan Africa (Easterly and Levine 1995). The study controlled for a wide array of growth determinants, such as initial income level, schooling, political stability, and monetary, fiscal, trade, exchange rate, and financial sector policies. It also included measures of infrastructure development, cultural diversity, and economic spillovers from neighbors' growth. Yet the study found that ethnic diversity independently accounted for approximately 35 percent of Africa's growth differential with the rest of the world. When the indirect effects on policies were also considered, this figure rose to 45 percent.

The indicators of social capital used in these studies all represent quantitative or qualitative measures of social capital, but without any attempt at direct valuation. Only the "residual" approach derived from growth accounting models is an indirect valuation method. While we have argued that social capital affects market outcomes and macroeconomic outcomes, the absence of a market for social capital, due to its public good character, makes valuation inherently difficult.<sup>9</sup> However, valuation is inevitable if social capital is to be seen as a final or intermediate economic output and to be included in the national accounts. One of the innovations of the 1993 United Nations System of National Accounts (SNA) was the inclusion of satellite accounts that incorporate the depletion of natural resources and selected environmental costs. This makes possible the calculation of "environmentally adjusted net national income" and so-called "genuine saving" (the residual of production minus consumption, depreciation of produced assets and drawing down of natural resources). The key purpose is to recognize that GDP will overstate economic gain if output is achieved by depleting natural capital (Serageldin 1996a, 1996b; Hamilton and Lutz 1996). Similarly, if economic growth severs social relations and depletes social capital, "genuine" growth will be lower than the standard GDP aggregate will suggest. Useful lessons can be learned from the environment accounts for the valuation of social capital. It is likely that the construction of a satellite accounting system for social capital would present the most feasible way of linking social capital to the SNA. The key account is the capital account, which must meet the following identity:

Closing stock	=	opening stock
	+	production of capital
	-	consumption of capital
	±	revaluation of capital

The latter account adjusts the value of assets due to price changes. Progress on the environmental accounts was only made possible after inventories of national capital stocks were measured and progress was made on valuing differing types of natural capital. The same lines of inquiry will be needed for social capital before advances will be possible toward an integrated system of social and economic accounting.

Finally, it should be pointed out that a number of authors purposely blur the distinction between social and human capital — taking both to be embodied in people and hence using indicators about people as opposed to measures about institutions or associations. The context is the concern with social welfare or human development. In this context many conventional human capital indicators are given social connotations. For example the U.S. President's Council on Sustainable Development (1996) lists access to education and health care as indicators of social equity, and the percentage of population attending college as a measure of participation in decision making. Likewise the United Nations Development Programme's Human Development Index has been used as a measure of social development. In effect, social indicators are used (almost) synonymously with social capital indicators. This approach, of course, enhances greatly the number of available measures of social capital, but this direction of operationalizing social capital is not consistent with the definitions of social capital discussed earlier in this chapter.

### **Role of Donors**

It has been argued in this chapter that certain forms of social capital can have strong positive effects on economic growth and can contribute to creating sustainable development. At the same time warning was given that an inappropriate path of development can destroy social capital, setting off a vicious circle of social and economic decline. There is thus clearly a role for government in promoting "desirable" forms of social capital. The public good nature of social capital further underlines this role, as does the fact that the functioning of government itself is a part of social capital in its broadest sense.

It is logical therefore to ask what the role is of donor agencies that are concerned with development — national as well as international, public and private — in creating or stimulating the creation of social capital. The World Bank has recently examined its own potential role, concluding that it needs to increase the extent to which it takes social relationships and local and national networks and institutions into account in its project design and policy advice. Five areas were identified for action.

### *Do Your Homework, Do No Harm*

The Bank needs to better understand existing social capital in a country prior to developing policies and as part of the process of project design. Assessments of social capital could be combined with poverty and social assessments, and would identify existing institutions, social relationships, and networks that contribute to growth and poverty alleviation, and also those that impede it. Such assessments would prevent projects from weakening existing positive social capital and suggest ways to strengthen it.

### *Use Local-level Social Capital to Deliver Projects*

Existing associations and organizations can be called upon to take part in the delivery of a project. This has the potential to improve beneficiary targeting, reduce project cost, and enhance the sustainability of projects by increasing "ownership." Furthermore, the participating institutions can become strengthened due to their involvement, thus enhancing social capital. This will require care in the selection of organizations so that they are truly inclusive of the intended beneficiaries (especially the poor) and have objectives in line with the project.

### *Create Enabling Environments*

The scope for effective use and strengthening of social capital depends critically on the nature of the wider political and policy environment. The latter can encourage or discourage local organization and provide incentives or disincentives for people to participate. An enabling environment is characterized by general good governance, enforcement of property rights, an independent judicial system, a competent and transparent bureaucracy, and mechanisms to promote dialogue and resolve conflict among economic agents.

### *Invest in Social Capital*

Direct investment in social capital means direct support to existing and emerging organizations. In practice, nongovernmental organizations and local government may often be in the best position to do so, given that most civic associations are small and local. National or international donors can support international NGOs and confederations of local associations. Participatory processes in project design often contribute to social capital building by inducing the formation of local user groups.

### *Promote Research and Learning*

As this chapter illustrated earlier, the measurement of social capital and the empirical assessment of its contribution to achieving growth and equity objectives is only just beginning. Such work, including new data collection, needs to be promoted further. Research is also needed on the most appropriate strategies for working with local organizations. Finally, the micro-macro linkage between social capital and macroeconomic performance needs to be explored further conceptually as well as empirically.

## Notes

This paper was originally printed as Chapter 6 of *World Bank, Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development, 1997, Washington, D.C.* It draws heavily from the work and report of the Satellite Group on Social Capital of the Social Development Task Force, which convened regularly at the World Bank in the spring of 1996. It also incorporates some of the discussions of the first Social Capital Workshop, organized by the Environmentally Sustainable Development Vice-Presidency of the World Bank on April 17-18, 1996. Intellectual debt to the participants of both working groups is herewith acknowledged. Special thanks are due to Gloria Davis, John Dixon, Philip Keefer, Deepa Narayan, Mead Over, Ismail Serageldin, Zmarak Shalizi, and Alison Van Rooy for very helpful comments and suggestions on an earlier draft.

1. It is *not* our objective, however, to provide a full literature review.
2. Some social scientists claim that the term *social capital* has been coined only to make the underlying concepts acceptable to economics. Economists reply that institutions and other aspects of social capital have always been present in economic analysis.
3. Coleman has been credited with introducing the term social capital into the sociological literature in his 1988 article, "Social Capital in the Creation of Human Capital," *American Journal of Sociology*. However, Loury introduced the concept of social capital into economics in 1977 in an analysis of racial inequality, to describe the social resources of ethnic communities.
4. This concept of social capital leans closely to the treatment of firms and other hierarchical organizations in institutional economics, where the purpose of the organization is seen as to minimize transaction costs (Williamson 1985, 1993).
5. Applications of game theory to economics, as well as the literature on the economics of information, have attempted to address such situations.
6. It needs to be pointed out that the existence per se of a group (such as a water user group) does not imply social capital. It is the mechanism underlying the group's ability to enforce group norms that constitutes the social capital in that setting.
7. According to Putnam, it is preferable to speak about trustworthiness rather than trust. Dasgupta considers that trust is merely confidence in an expected outcome (based either on past experience or on anticipated contract enforcement). For further discussion of trust see Gambetta (1988) and Fukuyama (1995).
8. There are dissenting views on the role of social capital in the explanation of East Asian growth rates. Some authors argue that most or even all of these growth rates can be explained by increased mobilization of resources (increases in labor force participation rates, education, and investment in physical capital) (Krugman 1994). Others, relying on endogenous growth models, argue that the low-income inequality that characterized the East Asian economies was in itself an important stimulus for growth (Birdsall and others 1995). For a recent review and interpretation of the evidence see Stiglitz (1996).
9. One aspect of social capital is routinely valued and traded in the market, namely, the "goodwill" of a corporation. Essentially, goodwill is the network of clients and suppliers of the corporation.

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