

“Thought Paper”: The Role of Social Capital in Frontier Capital Markets

#3: “Attempts to measure Social Capital”

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“[Social Capital is] the web of social relationships that influence individual behavior and thereby affects economic growth”, Karen Pennar: *Business Week*, Dec. 15, 1997

This paper is the third of a series of “thought papers” addressing social capital published by the Network Science Center at West Point. As our research teams conduct their analyses, certain findings and insights arise that may not be directly related to the research question at hand but, we believe, are important to both the academic and policy communities. This particular series of “thought papers” will address insights concerning social capital and its role economic development issues.

The Network Science Center at West Point has been involved in ongoing research exploring the network topologies of Capital Markets in Frontier Capital Markets. Frontier Markets are essentially a subset of Emerging Markets with lower market capitalization and liquidity. This term was coined in 1992 by the International Finance Corporation. Our team’s research has involved extensive data collection efforts including numerous interviews with financial leaders and innovators in these emerging economies.

During the course of this data collection and the subsequent analysis, the research team has identified additional topics that we believe are ripe for analysis. We believe that addressing these research topics is vital to understanding and devising potential innovations in economic development.

Throughout the course of our interviews with key actors and organizations within our networks of interest, it became apparent to the research team that the key individuals' social networks were amazingly powerful and influential. The team was aware of the concept of social capital and thought that it would be important to explore this concept in more depth and to further determine how to incorporate this concept more fully into our network analysis.

Literature Review of Social Capital Measurements

Besides lending credibility and adding reliability and consistency to social capital as a field of research (Van Der Gaag & Snijders 2002:1), measuring aspects of social capital could possibly make a difference in vital areas of everyday life. It promises to assist policy makers in many diverse fields including the fight against poverty, under-development, discrimination, and crime. But to date, there is no standardized method of quantifying the phenomenon of social capital. Past approaches to quantify aspects of social capital include McAllister and Fischer's name generator (1978), Lin's position generator (Lin & Dumin 1986, Lin et al. 2001), Van Der Gaag and Snijder's Resource Generator (2004), and Grootaert's Integrated Questionnaire of the Measurement of Social Capital (SC-IQ; Grootaert et al. 2004).

The Name Generator (also called "Interpreter approach") (McAllister, Fischer 1978) is a method that maps an ego-centered network and assembles an inventory of information about every social contact, such as the relationship between ego (the agent, or person, under analysis) and alters (the people in ego's network), the alters' social resources, and any opportunity to exchange them (Van Der Gaag & Snijders 2002:12). Researchers thus pose questions about the individual's contacts concerning the context of the relationship, the role the contact plays therein, geographic locations and specific periods of time. The name generator measures social capital through two indicators, network characteristics and the combination of alters' characteristics (mainly human capital and demographic attributes) as well as in relating all alters to each other in order to determine the best-possible resource (Lin 2001:62). This approach intends to limit distortions in form of social desirability in that ego has to name his social contacts

(hence the term name generator). It also allows for the study of the allocation of resources: do resources come in packages and what are the characteristics of alters holding specific resources? This approach comes with enormous effort and high costs, which some authors doubt is necessary for the research of social capital (Van Der Gaag & Snijders 2002:12). And because it goes into such detailed findings, the results are potentially incomparable and there is a great danger of inconsistency in the aggregated data (Van Der Gaag & Snijders 2004:5f). The limitation of this approach also lies in the preconception of the questions risking insufficient measurements without prior thorough exploration phase (Lin 2001:63).

The Position Generator (Lin, Dumin 1986; Lin et. al. 2001) circumvents the massive effort of mapping an individual's social network before locating the social resources in it. By approaching the ego's network through the analysis of his connections to prominent structural positions in the community or society (e.g. occupations, authorities, class), researchers are able to construct measures that obtain information on the strength of ties and structural holes such as (Lin 2001:63):

- Range of (potential) access to different hierarchical positions (e.g. distance between highest and lowest accessible position)
- Heterogeneity ("extensity") of the positions (potentially) accessible to the individual
- The individual's best-available position ("upper reachability")

This instrument is suitable for cross-cultural research due to its freedom from preconceptions concerning context and content of the individual's relationships. Only after the mapping of the individual's observable and relatively objective ties (ego is held to be on a first-name basis with respective social contacts), the content and nature of the relationships are assessed (Lin 2001: 63). In their empirical testing of the position generator, Lin and his colleagues were concerned with access to occupations via network members (Lin 2001: 65ff.). Helpful and observable qualities in this context are a network members' position in his network(s) derived from job prestige and hierarchy (Lin 2001:64f.). Informative findings from this study included gender-based inequality in

access to social capital amongst the Taiwanese sample population. Males tended to benefit from social capital on the labor market, whereas females fared better when relying on their human capital (i.e. education). Greater extensity of ties proved to be important in respect to gaining access to higher valued social resources. However, in order to obtain important structural positions non-kin (relationships to other than family members) ties are apparently more helpful than family ties. The researchers also found a positive correlation between location in the network and access to better social capital (Lin 2001:75f.). The position generator is economical and easy to administer and the measures have a theoretically sound foundation (Lin 1982). The questionnaire is also adjustable to different societies (North America, Asia, and Europe), populations (communities, the unemployed, members of different organizations and institutions), and political economies (East Germany, Hungary, China, as well as capitalist states), which makes it an optimal instrument in cross-cultural research (Lin 2001:76). Nevertheless, the position generator has its drawbacks, as only a small amount of specific information concerning social resources is collected and the resulting compilation is highly diverse. The instrument is derived from a theory (Lin 1982) that focuses on resources connected to attributes of network members (here: job prestige), thus being of limited scope (Van Der Gaag & Snijders 2003:12f). Moreover, goal- and context-specificity of social capital is not accounted for (Van Der Gaag & Snijders 2004:6f).

The Integrated Questionnaire of the Measurement of Social Capital (SC-IQ) (Grootaert et al. 2004) is the World Bank's approach to measure social capital and is inherently cross-cultural in scope. This instrument originally focused on developing countries as a tool to assist the fight against poverty. With an improved understanding of the social dimensions of economic development, more effective poverty reduction strategies can be conceived and implemented. The SC-IQ aims to generate quantitative data on various dimensions of social capital as part of a larger household survey (e.g. Living Standards Measurement Survey, the authors developed a long and a short version of the SC-IQ) (Grootaert et al. 2004:1). It is based and structured along six

dimensions of social capital including social networks, trust and solidarity, collective action and cooperation, information and communication, social cohesion and inclusion, and finally empowerment and political action (Grootaert et al. 2004: 5). This emphasis reveals the instrument's focus on the development of communities as it includes social capital as a collective resource. The SC-IQ was pilot-tested in Albania and Nigeria in 2002 (Grootaert et al. 2004: 21f.). As a result of the tests, the researchers found that local adaptation and thorough training of local interviewers are essential to reduce problems in the field and save time, money and improve accuracy in the long run (Grootaert et al. 2004: 23). Because the instrument is set up for research in different cultures, the authors point out that it needs adjustment to include locally-important issues and to exclude locally inappropriate questions. Finally, in cross-cultural research, special attention is always owed to linguistic matters: translations may not easily convey the intended meaning (e.g. different understandings of relationships, appropriateness of used vocabulary) (Grootaert et al. 2004: 2).

Van Der Gaag and Snijders developed a measurement they called Resource Generator aligning it with the two previously introduced methods (Van Der Gaag & Snijders 2003:11ff; Van Der Gaag & Snijders 2004:7f). The authors state that they are attempting to correct and address shortcomings inherent in the previous methods. Thus, other than the name generator approach, it considers one alter providing a given resources as generally sufficient (Van Der Gaag & Snijders 2002:13 and 2003:12f). It is an actor-centered (Van Der Gaag & Snijders 2003:11) approach that emphasizes the potential access an individual has to resources embedded in his social network. The researchers decided to measure the access to social capital, because the mobilization of social resources occurs less often than having (potential) access and thus can be assumed to be a subset of the latter (Van Der Gaag & Snijders 2002: 6f). Thus, the questionnaire entails items concerning the access to a fixed list of resources (Van Der Gaag & Snijders 2004:7). To assess the accessibility of the social resources the individual perceives he has access to, Van Der Gaag and Snijders determine on the alters' willingness to provide his resources by measuring tie-strength (via role of ties, i.e.

kin, friends, acquaintances). Over the course of the years, the researchers would only document the alter who has the strongest ties to ego for each resource. (In the 2002 paper, “An Approach to the Measurement of Individual Social Capital,” the authors include the possibility to document more than one alter, but all publications emphasize the importance of differing tie strengths-emphasizing strong ties) (Van Der Gaag & Snijders 2002: 15, 2003: 13, and 2004:7). The Resource Generator was designed with the goal in mind to help describe the “general collections of social resources in the general population” (Van Der Gaag & Snijders 2002:4). The results would allow comparisons between social groups: insights into the structure and distribution of social capital in different social groups (Van Der Gaag & Snijders 2002:5). The Resource Generator was fielded in 1999/2000 and returned data from a sample of 1,007 Dutch individuals aged 18-65 (Van Der Gaag & Snijders 2003:21). The interpretation of the results showed correlations between social capital items in the questionnaire, which allowed the researchers to group them into four categories (social capital domains). Items in the respective categories are routinely (amongst the sample population) accessed together with other items in the same category, but independently from items in the other categories (Van Der Gaag & Snijders 2003:21). The authors of the study labeled the four domains ‘prestige’, ‘information’, ‘skills’, and ‘support’ (Van Der Gaag & Snijders 2003: 24). The ‘prestige’ subscale was found to correlate with the socio-demographic factor education and with network size and variety. It also conforms strongly with Lin’s Position Generator measures of highest access prestige, range of prestige, and the number of positions accessed, suggesting that access to positions of prestige also provides access to more (diverse) social resources. The other categories represent distinct elements of social capital (Van Der Gaag & Snijders 2003:24f.). Like the name generator approach the Resource Generator fails to capture important information by restricting the documentation of available social resources to either the closest network member (Lin 2001:63; Van Der Gaag & Snijders 2003:13) or the alter with the strongest tie (Van Der Gaag & Snijders 2004:16). Hence, both approaches lack empirical data to support or dismiss Granovetter’s strength-of-weak ties proposition (Lin 2001:63). It is also not an adequate instrument in comparative, cross-cultural research

due to the variability of specific resource items over populations (Van Der Gaag & Snijders 2004:8).

The detriments of all these approaches lie in the (mis-)perception of the individual and the latency of the object to be measured. Inaccurate recounts and social desirability often cloud an individual's account. How close an individual is to his social contacts is not only subject to his subjective estimate or his desire of how close he would like to be, but is also determined whether or not his social contact agrees with this perception. The intangibility of the object to be measured, social capital, was sufficiently established in an earlier "Thought Paper", but needs to be recalled especially in this context. Further critique can be brought forth in respect to the social capital items researchers choose to include in their instrument. As Van Der Gaag and Snijders point out, it is inconceivable to include every aspect and element of social capital due to the limited frame an interview situation provides (Van Der Gaag & Snijders 2002: 18). To assist with this challenge, researchers have either reduced the scope of their work or included multiple measures that represent social capital in each life domain. These measures are derived from the study of individual goals in and the meanings of different social resources to the population in focus (Van Der Gaag & Snijders 2002: 18ff.).

The Way Ahead

Sociologists and economists are in general agreement that social capital needs to be taken into consideration and quantification is vitally important when attempting to understand the networks involved in economics especially when analyzing economic development. Our research team has completed a "pilot" social capital data collection project. Our next paper will include an analysis of this data, present some initial findings, and we will discuss challenges inherent in this type of data collection and analysis.