Journal of Banking and Finance 87 (2018) 102–117

Contents lists available at ScienceDirect

Journal of Banking and Finance

journal homepage: www.elsevier.com/locate/jbf

Social capital and the cost of equity

Atul Gupta*, Kartik Raman, Chenguang Shang

Department of Finance, Bentley University, Waltham, MA 02452, United States

ARTICLE INFO

Article history:
Received 29 March 2016
Accepted 4 October 2017
Available online 5 October 2017

JEL classification:
G32
G39
M41
O16
Z13

Keywords:
Social capital
Trust
Moral hazard
Agency
Cost of equity

ABSTRACT

We find that a firm's cost of equity is inversely related to the level of social capital in the state where the firm is headquartered. Further, the cost of equity declines when firms move their headquarters from a low-social-capital state to a state with higher social capital. The negative relation between social capital and the cost of equity is statistically significant only for firms facing relatively low levels of product–market competition and is not significant for firms with good firm-specific reputations. We interpret these findings as indicating that social capital serves as a societal monitoring mechanism, and can be value-enhancing for firms that are perceived as having greater agency problems and face weak product market monitoring.

1. Introduction

Economists have long recognized that a key component of social capital, viz., the level of trust, is essential to economic success in society (Arrow, 1972; Coleman, 1990; Putnam, 1993; Fukuyama, 1995). At the macro level, social capital enhances the performance of local and national governments, and facilitates economic growth (Putnam, 1993; La Porta et al., 1997; Knack and Keefer, 1997). More recently, a growing stream of research suggests that a high level of social capital engenders more trust between individuals, and thereby promotes the participation of individuals in financial transactions. Guiso et al. (2004), for example, report that households living in low social capital areas are less likely to use checks because of a lack of trust in the individual writing the check. El-Attar and Poschke (2011) find that less trusting Spanish households invest more in housing and less in financial assets, particularly risky ones. At the firm level, Hasan et al. (2017) report that firms headquartered in high social capital areas have lower spreads in bank loans and lower at-issue spreads in public debt issues. These findings support the proposition that lenders use managerial trust, as proxied by the level of social capital in the region where the firm is headquartered, when determining the risk of lending money to the firm.

We contribute to this literature by examining the effect, if any, of social capital on the rate of return required by equity investors in public companies. We focus on the firm's cost of equity because as residual claimants, common stockholders bear the greatest exposure to the risk of self-serving managerial actions. If the level of social capital in a region where a firm is headquartered proxies for managerial trustworthiness, then the valuation impact of differences in social capital are most likely to be observed in the rate of return demanded by the firm's stockholders.

The literature suggests that areas with high social capital are characterized by social norms that engender mutual trust and cooperative behavior. For example, Guiso et al. (2008b) define social capital as "the set of beliefs and values that foster cooperation." Fukuyama (1997) notes that "social capital can be defined simply as the existence of a certain set of informal values or norms shared among members of a group that permits cooperation among them." Similarly, Guisoet al. (2004) predict that "high levels of social capital generate higher levels of trust toward others." In addition, investors are more likely to trust people who are trusted by those around them, as is the case in high social capital environments (Pevzner et al., 2015). Consequently, information emanating from managers of firms headquartered in high (low) social capital regions may be viewed as being more (less) credible if the managers are perceived to be more trustworthy. Further, if

* Corresponding author.
E-mail addresses: agupta@bentley.edu (A. Gupta), kraman@bentley.edu (K. Raman), cshang@bentley.edu (C. Shang).

https://doi.org/10.1016/j.jbankfin.2017.10.002
0378-4266/

reputational penalties for misbehavior are higher in societies with stronger social norms, then managers headquartered in high social capital areas are less likely to take self-serving actions that reduce shareholder value (Coleman, 1988; Spagnolo, 1999). Consequently, we expect investors to require a higher return on the equity of firms headquartered in low social capital regions.

Our empirical analysis utilizes a panel of firm-year data to examine the hypothesized relation between the level of social capital in a region where the firm is headquartered and its cost of equity. We recognize the possibly endogenous nature of this relation, and adopt an instrumental variable approach to address the issue by using the degree of racial heterogeneity in 1970 as an instrument for social capital. We discuss in detail the economic and statistical relevance of the instrument later in the paper.

We use three different measures of social capital at the state level; these are from Putnam (2000): (i) Putnam index, (ii) Putnam honesty, and (iii) Putnam trust. The Putnam index, in particular, uses principal components analysis to create a state-level social capital index based on fourteen different factors. In addition to these state level measures, we also use a county level survey-based measure of social capital constructed by Rupasingha and Goetz (2008). We describe the measures of social capital in more detail later in the paper. Although the Putnam index appears to be the broadest of these measures, accounting for formal membership and participation in informal networks and including indicators of social trust among people, we use all the proxies noted above in our main analyses largely to ascertain the directional consistency of the results.

Following the literature (e.g., Hail and Leuz, 2006; Dhaliwal et al., 2006; Chen et al., 2011), we measure the cost of equity as the median of four different estimates of the implied cost of equity minus the risk free rate; estimation details are given in Appendix A. In OLS regressions we find that the four proxies for social capital all have the appropriate signs. However, two of the four proxies have coefficients that are not statistically significant and one has a coefficient that is significant at the 10% level; the Putnam index is the only proxy with a reliably significant coefficient. In contrast, instrumental variables estimation yields negative and statistically significant coefficient estimates for all four proxies for social capital. These findings are consistent with the hypothesis that investors require lower rates of return on the equity of firms headquartered in high social capital regions.

We check the robustness of these findings by examining whether the cost of equity changes when firms move their headquarters to a state with a different level of social capital. If social capital matters in influencing investors' trust in management, one would expect the cost of equity to decline following a move to a state with higher social capital. We use a difference-in-difference (DiD) regression to test the effect of firm relocation, which leads to a change in the social capital of the firm's location of headquarters, on the cost of equity. The results from the DiD analysis indicate that on average the cost of equity decreases after social capital increasing relocations. The results complement the evidence in Hasan et al. (2017) who show that the cost of debt declines following social capital increasing relocations. Collectively, the evidence in this study supports the proposition that investors' trust in management, as manifested in the social capital of the firm's headquarters location, is an important determinant of the cost of equity.

We conduct additional tests to get a better understanding of the underlying drivers of the observed negative relation between social capital and the cost of equity. First, we explore the relation between social capital, managerial monitoring, and the cost of equity. The literature suggests that social capital creates trust by reducing the likelihood of managers taking self-serving actions and by enhancing the penalties for misbehavior. Social capital, in other words, engenders trust in a manner similar to how other monitoring mechanisms (board quality, analyst following, product–market competition) create trust; by reducing the likelihood of managers taking self-serving actions and by enhancing the penalties for misbehavior. High levels of social capital can therefore be viewed as environments where managers face high levels of societal monitoring.

Given that firms are monitored in multiple ways, incremental monitoring provided by social capital should have value only when alternate monitoring systems are less effective. Following Giroud and Mueller (2010, 2011), we use the level of product–market competition in the firm's industry (the sales-based Herfindahl index) to proxy for the level of monitoring effectiveness, and find that the significant negative relation between social capital and the cost of equity holds only for firms that face lower levels of product–market competition (i.e. high Herfindahl index). We interpret these findings as confirming that social capital serves as a monitoring mechanism, and this additional layer of monitoring results in a significant decline in the cost of equity when other monitoring systems are weak.

Next, we explore how different firm characteristics might influence the strength of the relation between social capital and the cost of equity. One such characteristic is firm-specific reputation.[1] Empirically, we categorize firm-specific reputation using firm membership in the *100 Best Companies to Work For in America* published by Fortune magazine as a proxy for good firm-specific reputation. We find that the relation between social capital and the cost of equity is negative and statistically significant only for firms that are not on this list, and is insignificant for firms on this list. This finding indicates that good firm-specific reputation reduces investor concerns regarding agency problems, thus reducing the value-relevance of social capital.

We use firm age and firm size as additional proxies for firm-specific reputation, and find that the relation between social capital and the cost of equity varies with the strength of existing monitoring, as proxied by the level of product–market competition. In particular, the relation between social capital and the cost of equity is negative and significant for older and larger firms facing weak product–market competition. We interpret these findings as indicating that the monitoring role of social capital is value-enhancing for firms that have a weaker firm-specific reputation and face relatively weak external monitoring. The evidence also suggests that social capital adds value for smaller firms, regardless of the existing monitoring environment. The latter findings, though weak, provide some support for the argument that the monitoring function of social capital adds value for smaller firms which may not have much firm-specific reputation.

To our knowledge, this is the first study to present evidence on the effect of social capital on one aspect of a firm's contracting costs, viz., the cost of equity. In the context of the literature, our findings suggest that in addition to its effect on governments and individuals (e.g., Guiso et al., 2008a), social capital also affects corporations by providing an incremental monitoring function, which allays investor concerns about potential agency problems. Additionally, the study contributes to the literature on the determinants of firms' costs of equity. In particular, given that social capital is persistent over time (Putnam, 1993; Guiso et al., 2008b), the findings in our study have implications regarding the permanence of the effects of social capital on firms' costs of equity. While prior research largely emphasizes firm-specific characteristics, the findings in our study suggest that the environment in which firms operate also plays a significant role in influencing investors' required rates of return on equity capital.

[1] We thank an anonymous referee for suggesting this line of reasoning.