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The Role of Social Capital in Corporations*

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1. Introduction

In the neoclassical model of the firm, managers combine capital and labour in the production process to maximise profits. Firms continue investing until the return on the marginal dollar of investment is equal to the cost of capital. A large literature has studied the various frictions that prevent firms from investing optimally, either because financing frictions prevent them from exhausting their investment opportunities (see Fazzari, Hubbard, and Petersen (1988), Kaplan and Zingales (1997), Whited and Wu (2006), Myers (1987), Stulz (1990)) or because inefficiencies in the contracting process between the firm and its executives lead firms to overinvest (see Jensen (1989), Stulz (1990)). Likewise, there is a large literature on the importance of human capital in the production process and the role of compensation, particularly at the CEO level, in affecting investment and firm performance (see Edmans and Gabaix (2016) for a review).

More recently, a literature has also emerged studying a firm's intellectual capital – investments in R&D (see, for example, Brown, Fazzari, and Petersen (2009)) and associated patents and patent citations (Trajtenberg (1990) and Hall, Jaffe, and Trajtenberg (2005)). Such investments are an obvious necessity to safeguard the future livelihood of the firm, and, in fact, many industries spend more on R&D than on physical capital. Broadly speaking though, investments in both physical and intellectual capital would be considered capital investments.

There is another type of capital, however, that has received much less attention in the literature, but may be as important as the other sources of capital. In fact, without it, the return on the investments in other capital may well be substantially diminished. This type of capital is called *social capital*, and consists broadly of the quality of the relationships that the firm has built with a variety of stakeholders. Firms with greater social capital engender a level of trust

and cooperation from stakeholders that can ultimately enhance profitability and firm valuation. Of course, as with all types of investment, the marginal product of social capital investment is likely to decline as further investments are made, implying that firms can spend ‘too much’ on social capital.¹

In this paper, we discuss the importance of social capital for corporations and its relation to trust building and the notion of corporate culture; we also review the current empirical evidence.

In the following section, we start by discussing the antecedents of the notion of social capital, which was originally defined at the level of the society at large and applied to each individual member of that society. Much of the current research on social capital continues to rely on this notion. However, as we argue in Section 3, social capital can also be defined at the firm level. We also maintain that investments in social capital can help build trust between the firm and its stakeholders and, thereby, can improve the performance of the firm. In Section 4, we discuss various ways of measuring social capital at the firm level and review the empirical evidence on the relation between social capital and performance. We also contribute to the debate as to whether firms are investing sufficiently in social capital. Section 5 concludes.

2. Social capital and economic performance

Early views of social capital focus on social capital defined for a community or society as a whole, encompassing specific regions of a country or even entire countries or groups of

¹ A recent literature has also examined a firm’s political capital, built up through donations to politicians, executives involved in government, or through other networks shared by both the firm’s executives and politicians (see, for example, Faccio (2006), Akay (2015), and Schoenherr (2016)). This political capital can be considered to be an element of the firm’s wider social capital.

countries. Exact definitions of social capital vary. For example, Putnam (1993, 2000) views social capital as the propensity of people in a society to cooperate to produce socially efficient outcomes. In his well-known 2000 book, he refers to “*social networks and the associated norms of reciprocity*”. Coleman (1990) refers to social capital as “*a resource available to individuals that emerges from social ties.*” Paldam (2000) suggests that there are three families of social capital concepts: (a) trust, (b) ease of cooperation, and (c) network. We will revert to these families of concepts later.

It is clear, however, that social capital is a very broad concept and, consequently, researchers have employed a large variety of measures to capture it. Because the notion of social capital is so broad, it is also a somewhat elusive concept, which has hampered research on the merits of developing social capital. In fact, Diekmann (2004) argues that “*unlike theories of physical capital or human capital, social capital theory is not a deductive set of propositions but a heuristic framework of more or less precise hypotheses.*” We tend to agree with this statement, but we do believe that since the publication of Diekmann’s work, progress has been made on developing proxies for social capital. It is also important to note Solow’s (1995) criticism related to the discussion surrounding social capital. Solow argues that “*if ‘social capital’ is to be more than a buzzword... There needs to be an identifiable process of ‘investment’ that adds to the stock, and possibly a process of ‘depreciation’ that subtracts from it. The stock of social capital should somehow be measurable, even inexactly. Observable changes in it should correspond to investment and depreciation.*” This critique is clearly more relevant when it comes to measuring social capital of an individual or an organisation and we will revisit it in section 3 of the paper.²

² An interesting paper studying the value of social capital in a society is by Hamilton, Helliwell, and Woolcock (2016). Using various surveys, they compute the wealth value of social trust and relate it to wealth arising from

Much of the early research was dedicated to examining the relation between various measures of social capital and economic outcomes, with social capital being defined at the country or regional level. From this research, two conclusions emerge. First, and perhaps not surprising given our prior discussion, a variety of proxies have been developed to measure social capital. Second, social capital – or at least the proxies employed for social capital in the literature – does appear to be related to a variety of outcomes, including a number of economic outcomes, although it is not always clear that the link is causal. In what follows, we discuss some of the more important findings of this literature in more detail, focusing on both the proxies employed as well as the key insights.

Putnam's (1993, 2000) view is that the social capital of a society can be measured by the civic engagement of its members. In his 1993 book, he finds that there is a high positive correlation between various proxies for civic engagement and both government quality and economic performance across regions of Italy. Key is that such civic engagement enhances cooperation among the members of society and engenders reciprocity – the idea that I will cooperate with you now in the expectation that you will repay this favour in the future, even though there is no contractual or other requirement for you to do so. The concept of reciprocity is clearly a key component of social capital – the members of a society are more willing to take actions that would not appear in their self-interest simply in the anticipation that they too will be helped out during a time of need. The actions are both in anticipation of cooperation in the future (which could still be deemed to be in one's self-interest), but also as a reward for past cooperation. Reciprocity will be particularly important when we expand our discussion to include individual and corporate social capital. Another early contributor to the literature is

other types of capital (produced, natural, and human capital). For the U.S. and the U.K., they find that social trust is worth about 20% of the value of total capital in a society.

Fukuyama (1995) who also argues that social capital builds trust and that social capital is important for economic development.

Turning to a quantitative analysis of economic outcomes, Knack and Keefer (1997) find that social capital is related to economic performance. To measure social capital, they employ proxies that capture civic norms and trust, based on the World Values Survey. To measure civic norms, they gather responses on questions related to the deemed appropriateness of certain behaviours in society, such as claiming government benefits without being entitled to it, cheating on taxes, or failing to report damage accidentally caused to a parked vehicle. To capture trust, they look at the response to the question “generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?” from the World Values Survey. They find that both civic norms and trust measures are positively related to economic growth and investment. They find no evidence, however, that membership of civic groups, Putnam’s preferred measure of social capital, is related to trust or to economic performance.

La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997) further explore the relation between social capital, again measured using the World Values Survey response to the trust question as in Knack and Keefer (1997), and a number of economic outcomes. They find that trust is related to GDP growth, the size of the largest firms in the economy, tax compliance, and the lack of corruption. In support of Putnam’s (1993) view that social capital can be measured by civic participation, they also find that civic participation and membership of large organisations is related to trust. They further document that trust is lower in countries with dominant hierarchical religions, which may deter cooperation among people.

Finally, Zak and Knack (2001), also using the World Values Survey response to measure trust, find that both growth and investment are related to trust. They also explore the

determinants of trust and find trust to be negatively related to income inequality and corruption and positive related to contract enforceability and investors rights. This suggests that a country's formal institutional features are important in creating trust – it is therefore also crucial for researchers to establish that a role for trust persists after controlling for institutional features. Zak and Knack (2001) show that trust remains important after including such controls and, importantly, that much of the impact of formal institutional factors is due to their effect on trust.

The previous work is all focused on macro variables, both as the independent and dependent variables. Social capital is measured at the national or regional level, sometimes by averaging individual survey responses, while economic outcomes, such as GDP growth, are measured at the same level. Guiso, Sapienza, and Zingales (2004), on the other hand, relate social capital to the behaviour of individuals within a society. Thus, while social capital is still measured at the macro level, their work relates social capital to personal actions. Guiso, et al. (2004) find that in high-social-capital areas, households are more likely to use checks, invest less in cash and more in stocks, have higher access to institutional credit, and make less use of informal credit. Interestingly, they measure social capital as electoral turnout and blood donations, arguing that the more traditional measures, such as the response to “do you think people can be trusted?”, may be contaminated by other factors, such as law enforcement. They also argue that it is important to study these effects within countries, because differences in institutional features across countries may affect measures of social capital.

Guiso, et al. (2004) are not the first ones to argue that trust may not be a good measure of social capital. Earlier criticism of the use of trust as an explanatory variable, at least as measured by responses to the World Value Survey and General Social Survey question as to whether people can be trusted, can be found in Glaser, Laibson, Scheinkman, and Soutter (2000). Glaser,

et al. (2000) combine surveys and experiments (trust games) to determine whether survey questions regarding trust are good predictors of trusting behaviour. They find that this is not the case: subjects' attitudes toward trust based on surveys do not appear to coincide with their choices in a trust experiment. What is interesting is that these attitudes do capture trustworthiness; that is, the individuals who indicate that they are more likely to trust others behave in a more trustworthy manner themselves.³

One area that Glaser, et al. (2004) highlighted is the important distinction between trust and trustworthiness. Trust relates to how agents believe others will behave towards them; averaging trust out over survey respondents provides a measure of average trust in a society, which, as suggested previously, is often employed to measure social capital. In high-trust societies, agents expect others to act in a cooperative manner and not to take advantage of them. Trustworthiness, on the other hand, captures whether agents are indeed worthy of that trust and behave in the cooperative manner expected from them without taking advantage of the other party. If agents have high levels of trust in others, while others are not trustworthy, the agents will be taken advantage of in any type of economic exchange. This would then undermine their trust in others, which would eventually lead to a breakdown of trust in a society. We thus need an overall congruence between trust and trustworthiness. Of course, this does not mean that all agents within society need to be trusting or trustworthy.

Before turning to a discussion of social capital measured at the individual or firm level, it is useful to relate social capital to another broad concept that has received growing attention in the recent literature: culture. In fact, the notions of culture and social capital are both often employed as capturing the same underlying construct. Guiso, Sapienza, and Zingales (2006)

³ This criticism on the use of survey evidence as a measure of trust has itself been challenged by Fehr, Fischbacher, von Rosenblat, Schupp, and Wagner (2003) and Bellemare and Kroger (2007).

define culture as “*those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation,*” while Guiso, et al. (2008b) define social capital as “*the set of beliefs and values that foster cooperation*” and argue that social capital captures the culture of a society. These definitions suggest that the social capital of a society is part of its culture. Culture consists of values and prior beliefs, while social capital focuses on those beliefs that enhance cooperation. Given that they both rely on prior beliefs and values, they cannot change easily over time. This allows for a cleaner identification of the causal effect of culture and social capital on economic outcomes.⁴

Guiso, Sapienza, and Zingales (2009) study the impact of culture on economic activity using trust as a measure of culture. They find that bilateral trust between European countries affects trade, portfolio investment, and direct investment, and that this trust factor is important even after controlling for other country characteristics.

The level of social capital present in a society also has implications for corporations operating in that society. For example, Hilary and Huang (2016) find that companies operating in U.S. counties where trust is more prevalent (using the General Social Survey response to the trust question) suffer less from agency problems, are more profitable, and have higher valuations, while Hasan, Hoi, Wu, and Zhang (2016) find that firms operating in counties with higher social capital (measured as voter turnout in presidential elections and census response rate) enjoy moderately better terms in private loan deals. Trust also appears to affect corporate policies and associated valuation consequences. Kelly (2014), for example, finds that dividend paying corporations that are headquartered in low-trust regions trade at a premium to other firms headquartered in those regions.

⁴ See also Karolyi (2016) for a recent discussion of the role of culture in finance.

It is important to note that social capital does not need to rely on slow-moving inherited beliefs, but that networks of contacts that foster cooperation can be actively built by individuals in a society. Thus, unlike in the work discussed previously where social capital, trust, and culture are measured for societies as a whole, we argue that these concepts can also be defined and measured at the individual or corporate level. This fact and its implications for individual behaviour and corporate performance are discussed in the next section.

3. Individual and firm social capital

Glaeser, Laibson, and Sacerdote (2002) are some of the first to argue that social capital can be defined at the individual level and need not be group-based. They define an individual's social capital as a person's "*social characteristics - including social skills, charisma, and the size of his Rolodex - which enables him to reap market and non-market returns from interactions with others.*" Glaser, et al. (2002) argue that this social capital can be viewed as part of an individual's human capital. They proceed to build a model of an individual's accumulation of social capital, and find that six factors affect an individual's level of social capital: (a) it rises with the discount rate, (b) it drops with social mobility, (c) it declines with the opportunity cost of time, (d) it increases with the occupational returns to social skills, (e) it declines with the rate of social capital depreciation, (f) it increases in communities with more aggregate social capital, (g) it declines with the rate of social capital depreciation due to relocation, and (h) it declines with age. They also draw a strong parallel between the notion of social capital and Becker's (1964) characterisation of firm-specific human capital.

Using data from the General Social Survey on organisation membership as a measure of individual social capital for a cross-section of 1200 to 2500 respondents over the period 1972-

1998, Glaser, et al. (2002) confirm many of the above predictions, with two exceptions. First, they find no evidence that individuals with higher wages, and therefore a higher opportunity cost of time, have less social capital, perhaps because social skills are required to earn higher wages. Second, there is no relation between the (instrumented) social capital of an individual's peer group and the social capital of the individual. The latter result, in particular, suggests that aggregating individual social capital proxies may not measure social capital at the group level, which affects the interpretation of the earlier work discussed in the prior section, much of which is based on such aggregation.

The above discussion also suggests that two aspects of social capital are important – the social capital of the agent, and the social capital of the society in which the agent operates. The agent cannot exert much influence on society's social capital, but can invest in its own social capital as argued by Glaser, et al. (2002). Relating this line of argument to the notion of trust, Amiraslani, Lins, Servaes, and Tamayo (2016) refer to *Endowed trust* and *Earned trust*. They define *Endowed trust* as the level of trust an agent has 'acquired' externally from being located in a high-trust society or environment, likely an environment with high social capital. *Earned trust*, on the other hand, is trust which an agent can generate internally through its own investment in social capital.

From the above discussion, it is clear that the agents we refer to need not be individuals but can also be firms. Leana and Van Buren (1999) define the term organizational social capital as “*a resource reflecting the character of social relations within the firm.*” They further argue that organisational social capital is realized through shared trust. Thus, by investing in social capital, firms can earn the trust of their stakeholders and the broader community. Of course, building up social capital as a company may not be worthwhile if there is limited social capital in

the region(s) in which the firm operates, similar to Glaeser, et al.'s (2002) argument about individual social capital.

Empirical work relating individual measures of social capital to decision making and individual economic outcomes is of a more recent vintage than work on aggregate social capital. Guiso, et al. (2008a) employ individual measures of trust to predict the behaviour of individuals. More trusting individuals in surveys of Dutch and Italians households are more likely to participate in the stock market, implying that the lack of trust can help explain the limited stock market participation puzzle. Kelly (2014), whom we discussed briefly when focusing on aggregate social capital, also finds that less trusting individuals are more likely to tilt their portfolios toward dividend paying stocks. This work is mainly concerned with how the trust of individual agents affects their decision making.

From a corporate perspective, what is more important is to ascertain what firms can do to build their social capital and, consequently, earn the trust of their stakeholders, and whether this leads to improved valuations and performance. These issues are explored next.

4. Social capital: measures and impact on performance

4.1. Measuring the payoffs to social capital – a precursor

Even if we had the perfect measure of social capital, the topic for discussion in the next subsection, the question of how to relate social capital to performance metrics relies on what our beliefs are about the efficiency of financial markets.

If markets are at least semi-strong efficient, implying that all public information is reflected in the current stock price, then looking at subsequent stock price performance to

capture the value of social capital is not useful, since any value of investments in social capital is already imbedded in the share price. Other metrics of operating performance measures, such as operating profitability, or metrics of firm growth or employee productivity could be studied instead, but determining whether the effect of social capital is causal is not straightforward. Another option is to examine the relation between valuation metrics, such as Tobin's Q, and measures of social capital. Of course, a regression of performance metrics as a function of social capital illustrates association but will not allow for causal inference as social capital and performance will be optimized jointly. If panel data are available, then inclusion of firm fixed effects will absorb any firm-specific time-invariant component of social capital, which may alleviate some of these concerns, but, ultimately, without exogenous variation in social capital, it remains difficult to draw conclusions on causality. As we will discuss in the next subsection, instruments for social capital are hard to come by.

If markets are not semi-strong efficient, the task is easier; all that is required is to determine whether firms with high social capital earn excess stock returns in subsequent years, when the misvaluation is corrected. Studying operating performance and valuation metrics could also shed further light on the question, but the return evidence is likely to be the most compelling.

The above discussion assumes that social capital can be measured and that this can be done systematically for a large sample of firms. In the next subsection we discuss how firms can build social capital and various approaches that can therefore be employed to measure it.

4.2. *Building social capital*

There is no generally agreed view as to what firms can do to build their social capital and trust associated with it, but virtually all articles on the subject suggest that building social capital is related to efforts to promote the well-being of all stakeholders in the firm. As such, investments that are generally categorized under the corporate social responsibility (CSR) remit could be considered building blocks of a firm's social capital. This view has been expounded by practitioners and academics alike. For example, Niall Fitzgerald, who was Chairman of Unilever from 1996 to 2004 delivered a speech at London Business School in 2003 entitled: “*CSR: Rebuilding trust in business*” (see, Fitzgerald (2003)). In it, he argued that CSR has moved from the periphery of business to the central stage and that companies must set out their own values and build trust by applying these values to everything they do.

Since the financial crisis, when trust in markets, institutions, and corporations suffered a substantial breakdown, the idea that firms can engage in CSR activities to rebuild trust has gained even further prominence. For example, two consecutive CEO surveys conducted by Price Waterhouse Coopers in 2013 and 2014 suggest that regaining trust has become critically important in business and that the majority of CEOs (56% in the 2013 survey) believe that building a more ethical culture is the starting point. Fifty percent want to improve workforce diversity and inclusion and 49% reduce their environmental impact. The Interim Report on The Purposeful Company published by the Big Innovation Centre (2016) makes arguments along similar lines, suggesting that *Purpose* needs to be at the forefront of all corporate thinking and that such purpose implies a framework involving engagement with all stakeholders.

From an academic perspective, a recent book edited by Sacconi and Degli Antoni (2011) contains many academic references suggesting that CSR can be one way of building social

capital in the firm. Aoki (2011), for example, argues that in response to social contributions (referring to CSR investments) citizens may ascribe social recognitions to provider corporations, which would constitute their social capital. He further points out that “*higher social corporate capital may serve as a positive signal (analogous to advertisement) and contribute to prospects of long-term profits net of costs of CSR.*” Degli Antoni and Sacconi (2011) develop a model in which CSR investments, combined with the social capital of individual agents, generates social capital for the firm. An important ingredient of their work is that stakeholders will sanction firms that do not follow through on their commitments.

While we believe that studying various aspect of CSR is a very promising avenue to measure a firm’s social capital, it is not the only approach, however. Nor do we argue that CSR is a perfect measure of a firm’s social capital; firms that just pay lip service to CSR without full and proper organisational commitment to such activities are unlikely to build up any social capital at all. In several of the empirical papers that will be discussed in subsequent sections, this congruence between the firm’s CSR activities and its overall reputation is crucial.

In addition to CSR activities, there are a number of other ways that could be employed to measure social capital. One approach could be to look at how central a firm is in its relations with customers and suppliers. Ahern (2013), for example, has developed measures of centrality based on a firm’s network of intersectoral trade. He finds that stocks in more central firms earn higher returns, which he ascribes to their greater exposure to sectoral industry shocks. Such firms are also likely to be more networked, however, and may well have higher levels of social capital, as well. Disentangling the social capital effects from other effects, such as the one identified by Ahern (2013), will be challenging though. It is also not clear how a firm can directly influence its position in a network and become more central. It could develop

relationships with more suppliers, attempt to expand its customer base or increase its product lines either organically or by acquisition, but all of these will likely entail a substantial cost.

Another approach to measuring a firm's social capital relies on the social networks built by its managers and directors. The availability of more refined data on the board members of many publicly traded companies in the U.S. and elsewhere through LinkedIn and other data providers allows researchers to prepare a detailed mapping of director and executive networks. We can establish, for example, whether directors and top executives of different companies know each other through educational or social networks. This information has been exploited in a number of contexts. For instance, it has been used to track information flows between firms and fund managers (Cohen, Frazzini, and Malloy (2008)) and to measure power such as between CEOs and divisional managers (Glaser, Lopez-de-Silanes, and Sautner (2013)). Information on these networks could also be employed to study the social capital of the firm, albeit that the captured dimension would inevitably be more concerned about the networks built by top executives and directors and not the firm as a whole. Such networks are easier to develop, for example by adding well-connected directors to the board or by seeking out C-suite executives that are well connected. In particular, as firms are becoming ever more global looking, adding talent from a diverse international background is likely to improve top level social capital.

The above discussion also highlights that it may be important to differentiate between the social capital of the firm and the social capital of its executives. While current research focuses on one or the other, their joint consideration is clearly important, as is the question as to whether they are complements or substitutes. In addition, there is no particular reason to concentrate on executives only. All of the firm's employees have their own networks through which they have

built their own social capital. How, or whether, this social capital aggregates or contributes to the firm's overall social capital is an open question.

One could also measure aspects of social capital that apply to just one stakeholder. Edmans (2011), for example, focuses on employees by studying rankings of the best companies to work for, while Canayaz, Mayer, Ozbas, and Ozsoylev (2016) focus on consumer reputation using brand imagery surveys.

The sets of metrics of social capital discussed in this section are unlikely to be exhaustive and as research on this topic progresses, we expect further development of social capital measures.

4.3. The relation between social capital and performance

Are firms paying enough attention to social capital? Are they investing enough in it? Do such investments pay off? These are ultimately the crucial questions that need to be answered. As mentioned in section 4.1., determining whether social capital investments are value creating is not straightforward.

Much of the focus of this research has been about the relation between CSR and performance. Before discussing this research, we provide some data on the amount companies actually invest in CSR. Because companies do not have to make formal disclosures of CSR investments, determining how much they actually spend on such efforts is fraught with problems. A recent global study on CSR by EPG Economic and Strategy Consulting estimates (based on surveys and interviews with corporations) that firms in the 2013 Fortune Global 500

spent a combined \$19.9 billion on CSR activities on a yearly basis over the period 2011-2013. Of this amount, \$10.25 billion was spent by 132 US companies and \$2.65 billion by 26 U.K. companies. The U.S. company with the highest spending was Oracle, with average annual CSR expenses of approximately \$2.3 billion; AstraZeneca was the highest spending U.K. company with average expenditures of around \$1.2 billion. To put these numbers in perspective, average R&D over the years 2011-2013 for Oracle was \$4.8 billion, while average capital spending was \$626 million. For Astra Zeneca, R&D averaged \$5.2 billion, while capital spending averaged \$751 million. Of course, these are the firms with the highest levels of CSR spending, but the amounts are certainly substantial.

Using data from EPG on the 100 firms with the largest CSR budgets, we have conducted some additional analysis on CSR spending. Total spending by these companies alone amounts to \$17.7 billion, thus comprising almost 90% of the total CSR investments of the Global Fortune 500 companies. For those firms with data available on the Compustat database, we have also related this level of expenditures to profitability and investment. Median CSR spending comprises 4.7% of capital expenditures (n=76) and 0.8% of EBITDA (n=79). Relative to R&D, for those firms that disclose R&D spending, median CSR amounts to 9% (n=44). While they still relate to the firms with the largest levels of CSR spending, these are significant levels of investment.

Another approach to estimating firm spending on CSR investments is followed by Di Giuli and Kostovetsky (2014). They gather data on firms' Selling, General, and Administrative (SG&A) expenses, which they regress on CSR proxies and a number of control variables (industry, firm characteristics, and CEO characteristics). This approach does not allow them to assign a figure to the exact amount of CSR spending, but they can back out how much extra

money is spent on CSR by firms with high levels of CSR spending compared to those with low levels of CSR spending. They report that a one standard deviation increase in their CSR measure is associated with an extra 6.4% increase in SG&A expenses, which represents an extra 1.2% of firm revenues. They also convert these numbers into dollar amounts for the Russell 3000 firms, which are roughly the 3000 largest U.S. companies. The 6.4% increase in CSR spending represents an extra \$44 million investment for the average Russell 3000 company and an extra \$201 million of the average S&P 500 firm. Again, these levels of investment are substantial.

Do these investments in CSR pay off? An extensive literature in strategy and management indeed shows a positive relation between various performance measures and measures of corporate social responsibility (see Friede, Busch, and Bassen (2012) for a review paper). However, only recently have attempts been made to draw causal inferences and assess whether prior work suffers from an omitted variable bias. Servaes and Tamayo (2013), for example, illustrate that the well-known relation between CSR and value (measured using Tobin's Q in their study) disappears when firm fixed effects are included in a panel regression model. This suggests that earlier findings are partly due to the failure to control for unobservable time-invariant firm characteristics. They do find a positive relation between value and CSR interacted with advertising, which they interpret as evidence that information about the firm's CSR activities needs to be in the public domain, something that is more likely to happen in advertising intensive firms. They also study whether the CSR efforts are perceived to be genuine by gathering data on Fortune's Most Admired Companies and find that the impact of the CSR-advertising interaction is strengthened for companies that feature more prominently on Fortune's ranking. For firms at the bottom of the ranking, however, the impact reverses. Servaes and Tamayo (2013) interpret this evidence to suggest that firm CSR efforts that are not deemed to be

genuine and in line with the firm's prior reputation do not pay off. It is important to note that while Servaes and Tamayo (2013) employ a fixed effects model, inclusion of firm fixed effects alone, of course, does not allow for inferences that fully establish causality.

Recent work that tries to draw causal inferences is by Flammer (2015). She employs a regression discontinuity approach using votes by shareholders on CSR proposals. By studying proposals that pass or fail with a small margin, she comes close to random assignment of firms into those that do more and less CSR. She finds that firms that adopt close call CSR proposals exhibit positive announcement returns and improved accounting performance, suggesting that CSR is value adding.

Eccles, Ioannou, and Serafeim (2014) compare 90 high sustainability firms with a matched sample and also find superior subsequent stock market and accounting performance. Di Giuli and Kostovetsky (2014), on the other hand, find that future stock returns of S&P500 firms are negatively related to the lagged change in the firm's CSR metrics, particularly CSR strengths: increasing CSR strengths by 1 lead to stock price underperformance of 2.4% in the following year.

Edmans (2011) focuses on employee satisfaction, one element that can be (but need not be) due to CSR investments. He employs the list of the 100 Best Companies to Work for in America from 1984 onwards and finds that companies that appear on this list exhibit excess stock market performance in subsequent years between 2% and 3.5%. Edmans (2011) argues that this evidence implies that the stock market does not fully incorporate the value of employee satisfaction into share prices. He also finds that the effect has abated somewhat over time, suggesting that the market is now learning about the added benefits of employee satisfaction.

Guiso, Sapienza, and Zingales (2015) find a positive the relation between performance and employees' perception of top managers as being trustworthy and ethical, which they argue are aspects of corporate culture. They conclude, however, that they cannot draw causal inferences.

Kacperczyk (2008) uses a Delaware court decision in 1996 that reduces the threat of hostile takeovers for firms with staggered boards to identify the effect of takeover protection on CSR activities and subsequent performance. Using a difference-in-differences approach, she finds that when firms become less susceptible to a takeover attempt, they pay more attention to the community and the natural environment (but not to employees, minorities, or customers). Those firms that increase their attention to stakeholders exhibit improved long-term shareholder value. This evidence suggests that takeover threats prevent firms from building social capital, which is ultimately bad for shareholders. The fact that firms appear to need takeover protection to 'do the right thing' also suggests that investment in building social capital are not fully incorporated in the share price.

Ferrell, Liang, and Renneboog (2016), using a global sample, find that better governed firms engage in more CSR, which does not support the view that CSR investments are due to agency problems. They also report a modest positive relation between instrumented CSR and Tobin's q , albeit that their specification does not include firm fixed effects and winsorizes q at the 95th percentile.

Lins, Servaes, and Tamayo (2017) study the relation between CSR and returns during the financial crisis. They focus in particular on the period from August 2008 to March 2009 when trust in firms, markets, and institutions eroded (see Sapienza and Zingales (2012)). They find

they firms that entered the crisis with CSR scores in the top quartile earned stock returns during the crisis of about five to seven percentage points higher compared firms from the lowest quartile. However, before and after the crisis, they find no evidence that high CSR firms outperformed, suggesting that any benefits from CSR are already imbedded in the share price during normal times. During a crisis, however, social capital becomes more important and those firms that happen to have selected high levels of CSR during normal times benefitted accordingly. Amiraslani, et al. (2016) report that these benefits also extend to the bond market: high CSR firms had lower debt spreads during the crisis period.

Popadak (2013) uses a variety of approaches to study the consequences of actions that improve governance. She combines a regression discontinuity analysis of proposals to improve governance, an instrumental variables approach, and interventions by activist hedge funds relative to a matched sample. All three approaches yield similar conclusions: improvements in governance have a detrimental impact on aspects of culture such as customer-orientation, integrity, and collaboration. Interestingly, while this appears to lead to positive market-adjusted stock returns in the short run, these effects appear to reverse in the long-run, leading to statistically significant underperformance of 1.4% by the eighth quarter after the governance improvements. These findings appear to be consistent with a short-term orientation on the part of shareholders since the long-run consequences of these decisions are not reflected in the immediate share price response of the firm.

Graham, Harvey, Popadak, and Rajgopal (2016) survey 1,300 North American firms to assess the importance of culture. Their work does not directly speak to the relation between social capital and value, but it does provide important evidence on the perspectives of executives on the importance of culture and social capital more generally. They report that 90% of

executives believe that culture is important or very important and that 92% believe improving culture would increase firm value. The key cultural values they identify are integrity, collaboration, and adaptability. The first two are clearly tied to the firm's social capital as discussed previously.

What are the implications of the above evidence for corporate policies? Are firms investing optimally in social capital or is there room for improvement? The evidence that firms with better metrics on CSR, sustainability and employee satisfaction appear to earn excess future stock returns suggests that the benefits of these activities are not fully incorporated into the share price, but there is countervailing evidence as well. Similarly, since in the short run the market positively responds to the perceived weakening of corporate culture, managers may decide not to pursue strategies within the CSR remit as they may not pay off immediately. This is just a manifestation of a more general phenomenon that is usually described as short-termism.

In the next subsection, we examine in more detail whether firms are not investing enough in social capital and why that might be the case. It is important to note, though, that all of the above evidence only considers social capital as measured by CSR, corporate culture, or elements related to these two concepts such as job satisfaction. There is little or no evidence on the relevance of others metrics of social capital such as those related to networks. Therefore, it is not possible at this point to assess the quality and quantity of firms' investments in other types of social capital.

4.4. *Evaluating optimal investment in social capital*

If we treat investments in social capital as any other investment, then we would expect firms to add to their social capital up to the point where the return on the marginal dollar of investment is equal to the cost of capital. If firms do not behave this way, then we need to understand what frictions lead firms to invest too little (or indeed too much). At their core, many of these frictions are not different from the frictions that affect companies when making regular investments. What are those frictions? How can we distinguish among them? And what can be done to overcome the frictions?

Capital constraints. One friction already alluded to in the introduction of this paper is that some firms are capital constrained and, therefore, unable to take all good investment opportunities they encounter, including opportunities to invest in social capital. Constraints often arise because firms cannot convey the merits of a potential investment opportunity to prospective investors, leading them to not provide funding for the investment or to ask for egregious terms such that the investment is no longer economically viable. This phenomenon could be particularly relevant for investments in social capital because it may be even more difficult to convey the virtues of such investments. Better communication with the investment community, perhaps using examples of other companies that have made successful investments in social capital, could alleviate some of the constraints. This could be tested through an analysis of the spending on social capital (maybe proxied by CSR investments) as a function of proxies for financial constraints, very much in the spirit of the early work on capital investment and financial constraints (see Fazzari, et al. (1988)), although dealing with some of the criticisms of this line of work is not straightforward (see, for example, Kaplan and Zingales (1997), Fazzari, et al. (2000)).

Hong, Kubik, and Scheinkman (2012) conduct such an analysis for S&P 500 firms. In normal times, they find that more constrained firms conduct less CSR, thus suggesting that financial constraints do play a role in limiting CSR investments. During the Internet bubble, which relaxed financial constraints for both technology and non-technology firms, they find that non-technology firms that were financially constrained, increased their goodness (i.e., their CSR scores) more than unconstrained firms. This effect is also much stronger than for capital expenditures and R&D expenditures. According to the authors this implies that firms only do good after they have done well and that goodness spending is an offset or secondary to investment or R&D expenditures. Thus, they do not believe that financial constraints prevent firms from exhausting their CSR investments.

We agree with the above implication that financial constraints are unlikely to prevent most firms from making optimal investments in social capital. Many firms appear to have sufficient slack to increase investments in both real and social capital and simply decide that it is optimal for them not to make them.

Lack of information on the part of companies. Perhaps companies are not investing enough in social capital because they do not fully understand the associated benefits. This implies that they are making optimal investments, given the available information. Over time, as new information becomes available about the benefits of building up social capital, and firms learn about these from observing other players in the industry, they adjust their investments to reach the optimal level. This may well explain the growing interest in CSR investment from the part of companies. Companies may also learn from recent research. For example, the evidence in Servaes and Tamayo (2013) that firms with high advertising intensity that conduct CSR are

valued at a premium may help firms decide that it is important to provide information about their CSR activities for their customer to reward them with higher sales levels.

After many years of research on the topic, however, we would expect companies to now be rather cognizant about the merits of building social capital; we therefore do not believe that the lack of information about its merits is the main culprit preventing firms from making these investments, but we do recognize that the actual merits of building social capital could be changing over time, thus leading firms to play catch-up.

Lack of information on the part of investors. Another possibility is that investors do not fully understand the merits of social capital investments because social capital is an intangible asset and it may take a long period of time before the investments bear fruit, while the costs are borne immediately. Such costs may indeed be substantial as discussed in Section 4.3. The obvious solution would be to provide investors with sufficient information such that they can assess the merits of these investments. Of course, disclosing the amounts spent on CSR alone may not be sufficient – investors still need to assess whether the investments also make sense, and it is certainly possible that investors do not always possess sufficient information to determine whether the investment are indeed building up social capital or are perhaps due to agency problems within the firm. This inference problem is likely exacerbated by recent conflicting research about the role of agency problems in determining charitable giving. Masulis and Reza (2015), for example, find that corporate giving declines in CEO ownership and increases in their charity connections, suggesting that such donations are wrought with agency problems (see also Cheng, Hong, and Shue (2016)). Liang and Renneboog (2017), on the other hand, reach the opposite conclusion and find that charitable donations are positively related to performance and firm value.

We would venture to argue, however, that if lack of information is indeed a problem, this should attenuate over time as the benefits of social capital investments materialise, and investors' and firms' understanding of the merits of these expenditures advances.

It is important to note, though, that lack of information on the part of investors alone is not sufficient for companies to underinvest in CSR and social capital. If managers have proper, long-dated incentives, they will still make the right investments, because the payoffs will materialise eventually. We are not aware of any research that specifically studies the relation between CEO incentives and social capital investments, but the work of Masulis and Reza (2015) just discussed finds an inverse relation between corporate giving and CEO ownership.

Short termism in general. Even if investors have all the information about the potential merits of social capital expenditures, if capital markets are short-term oriented in that longer term payoffs are either ignored or discounted at too high a rate, then it is indeed possible that firms underinvest in social capital. As in the previous paragraph on lack of information, this explanation also requires short-dated incentives on the part of managers. We have pointed previously to evidence by Edmans (2011) and Popadak (2013) consistent with short termism in the context of employee satisfaction and corporate culture, and there is a much broader literature on short termism in general (see, for example Stein (1988)), although some of the arguments rely on the lack of information rather than short termism per se. Analyzing evidence for and against short-termism is beyond the scope of this article, but we believe that if prices do not fully reflect the fundamentals of a company and if this information is readily available, there is sufficient arbitrage capital available to correct any mispricing.

The Big Innovation Centre (2016) and Mayer (2013) argue that the lack of long-term committed capital is the root cause of short-termism and suggest a number of solutions, such as allowing firms to introduce dual class shares, restricting hostile takeovers, increasing the voting rights of investors who intend to keep their shares for longer, and preventing merger arbitrageurs from influencing takeover outcomes. While corporations in the U.S. are currently allowed to adopt many of these solutions, U.K. firms are more limited in which of these structures they can adopt. Mayer (2013) also makes the more drastic recommendation that firms should (at least consider) appointing a board of trustees which oversees the values of the organisation and ensures that executives adhere to those values. The board of directors, in Mayer's (2013) scheme, would maintain its advisory role, but could lose much of its oversight over management. Trustees, under this proposal, could be self-elected or elected by shareholders. Regarding the initial suggestions to allow U.K. companies greater freedom in having shares with different voting rights and restricting takeover activity, we are certainly supportive of freedom of contracting, and, as long as approved by shareholders, companies should be allowed to make these changes. Having a board of trustees in addition to a board of directors may be very complicated to implement, but it is certainly an idea that should be studied in greater detail.

At this point, we do not believe, however, that there is a compelling case to be made for firms to invest more in social capital, but more study is certainly required. The single strongest argument in favour of the underinvestment conjecture is that the stock market does not fully value intangibles, but that alone is not sufficient to posit that firms are not doing enough (we also need managerial incentives to be distorted), and the evidence seems to suggest that the market is learning over time. As we discussed in Section 4.3., companies spend a substantial amount on CSR. Before suggesting that companies should do more, we need to better understand the

marginal benefits of these additional investments so that they can be properly compared against the costs.

It is also important to make sure that it does not become a rat race. For example, since firms that feature on the list of 100 Best Companies to Work For appear to outperform the market in subsequent years, there might be a temptation for firms to increase their CSR efforts towards employees so that they are included in the list in subsequent years. The investment to do so may well be substantial and will, of course, lead to other firms being removed from the list. If all firms aim for inclusion in the list, while those on the list have every intent of remaining there, spending on employee welfare will likely become extreme and could spiral out of control.

One further objection to the notion that more needs to be done on CSR is that this prescription is not tailored at all to the firm's or its industry's specific circumstances. This may be the case because we have little or no evidence on the competitive interaction effects of CSR. Are there industries in which all firms behave more responsibly than others, and, if so, should firms not tailor their CSR efforts towards the industry norm? And what are the costs to deviating from the industry norm? These questions remain unresolved at this point.

5. Conclusion

In this article we discuss the role of social capital with particular emphasis on corporations, and argue that social capital is likely to contribute substantially to firm value. Without social capital, the returns on other forms of capital, such as physical, intellectual, and human capital are likely to be lower. Social capital is important because it builds trust among the firm's stakeholders, thus enhancing the productivity of the firm. Firms are endowed with some of their social capital, simply because they are headquartered or operate in regions where the

population is more willing to trust; the only way a firm can alter this is by changing location. However, social capital can also be accumulated through specific investments in networks, and in CSR activities. There is clear evidence that CSR investments pay off, but it would be wrong to conclude that this necessarily implies that firms are not doing enough since the costs associated with building stronger networks and improving the wellbeing of stakeholders are likely substantial. Even if these intangible benefits are not fully incorporated in stock prices, this does not imply that managers are not making the necessary investments.

There is clearly ample need for further research on the importance of social capital and its role in enhancing firm value. First, we need a better understanding of the various ways in which firms can build social capital. While studying CSR expenditures is clearly useful, looking at the networks of firms, executives, and other employees will likely yield further insights. This should also allow us to distinguish between the social capital of the firm and that of individuals within the firm. Second, the view that “one size fits all” is clearly too simplistic. Social capital may be more important for some firms than others; there is a need for a better understanding of how social capital affects product market competition. Third, if some firms are not doing enough, while other firms are doing too much, we need to better understand what agency problems or other frictions lead to such suboptimal behaviour and what the costs of fixing it are. Fourth, if there is a lack of CSR investment due to short-dated incentives, such a relation should show up in the data. Addressing these questions will be fruitful areas of research as the study of social capital becomes more mainstream in finance and economics.

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