

# Is Social Capital Valuable? Evidence from Mergers and Acquisitions

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We use comprehensive social capital data of U.S. counties from the Social Capital Project and show that social capital has a positive effect on acquirer announcement returns. The effect is more pronounced where agency problems are more severe, that is, a supermajority is required to approve a merger, the acquirer size, the deal size, and the ratio of stock payment are larger, or the percentage of blockholder ownership is smaller. Additionally, higher social capital creates more synergies, enhances the acquirer's long-term performance, and shortens the deal duration. Overall, the results are consistent with the shareholder value maximization view that social capital constrains managerial opportunistic and self-serving behaviors in the acquiring firm, which leads to better acquisitions that benefit acquirer shareholders.

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## 1. Introduction

Social capital is characterized by societal relationships, connections, and norms that engender mutual trust and cooperation (Coleman, 1988; Guiso et al., 2011; Hasan et al., 2017b; Hasan et al., 2021; Putnam et al., Leonardi, & Nanetti, 1994). Guiso et al. (2011) and Hasan et al. (2017b) define social capital as the confluence of effects generated by social networks and cooperative norms. Recent studies have examined the impact of social capital on economic outcomes. Hasan et al. (2021) find that social capital affects the trustworthiness of trustees and the trust propensity of trustors in the context of peer-to-peer lending. Lins et al. (2017) emphasize the value of social capital to firms during the 2008-2009 financial crisis, documenting that high social capital firms have higher profitability, gross margins, and sales growth. Social capital also reduces executive compensation (Hoi et al., 2019), decreases corporate leverage (Huang & Shang, 2019), and lowers firms' cost of equity (Gupta et al., 2018). However, there is limited evidence on the impact of social capital on mergers and acquisitions (M&As), one of the most significant corporate investments. In this paper, we focus on the association between social capital and M&A outcomes.

Social capital has been shown to limit opportunistic behaviors, encourage cooperation, and mitigate agency problems. Hasan et al. (2017a) show that social capital acts as a governance mechanism which reduces self-serving behaviors such as tax avoidance. Further, Hoi et al. (2019) find that social capital reduces the levels of CEO compensation, CEO equity-based compensation, and the likelihood of opportunistic

option grant awards, suggesting that social capital restrains managerial rent extractions. Accordingly, we conjecture that high social capital environments limit opportunistic and self-serving behaviors, mitigating agency problems in acquiring firms (hereafter, the *shareholder value maximization view*), leading to an increase in acquirer announcement returns, improved transaction synergies, better long-term operating performance, higher long-term stock returns, and shorter deal duration.

We use a sample of 2,832 completed M&A deals in the U.S. from 2010 to 2019 and county-level social capital index data from the Social Capital Project (SCP). We find a positive relationship between the social capital of the county where the acquirer is located and the acquirer's announcement returns. The results suggest that a one standard deviation increase in social capital results in a \$46.79 million increase in the acquirer's value, *ceteris paribus*. Our results support the *shareholder value maximization view* as we find that the effect is more pronounced when agency problems are more severe in the acquiring firm, i.e., when a supermajority is needed to approve a merger, when the acquirer's size, the deal size, and the ratio of stock payment are larger, and when the percentage of blockholder ownership is smaller. Further, we find a positive relationship between social capital and transaction synergies. We document that social capital leads to higher long-term operating performance and long-term stock returns, emphasizing the long-term value of social capital to the acquirer. Finally, we show that social capital reduces deal duration, consistent with the argument that managers of acquirers located in high social capital counties exert greater effort to complete the transactions.

Our findings are robust after we address endogeneity concerns using instrumented regressions with three sets of instrumental variables based on racial fragmentation, religiosity, democratic state and ethnic homogeneity. Our results are also robust to controlling for corporate social responsibility (CSR), and are not sensitive to alternative measures of announcement returns and social capital. Overall, our findings support the *shareholder value maximization view* that managers of acquirers located in high social capital counties tend to complete acquisitions that benefit shareholders.

We contribute to the broad literature that presents social capital as an important determinant of economic decisions. Studies focusing on the macro-level show the enhancement effect of social capital on economic growth and investment (Guiso et al., 2009; Knack & Keefer, 1997; La Porta et al., 1997; Zak & Knack, 2001). On the micro-level, social capital affects stock market participation (Guiso et al., 2008), financial preferences of households (Guiso et al., 2004), firm valuation (Deng et al., 2013), and private loan contracts (Hasan et al., 2017b). We find a positive impact of social capital on M&A outcomes.

We add to the literature on external corporate governance (e.g., Giroud & Mueller, 2010; Straska & Waller, 2014). In high social capital environments, managers are constrained from self-serving and opportunistic behaviors and undertake value-added acquisitions. We complement research that identifies the role of social capital in mitigating agency problems in various contexts, such as executive compensation (Hoi et

al., 2019), corporate leverage structure (Huang & Shang, 2019), cost of equity (Gupta et al., 2018), and debt contracting (Hasan et al., 2017b).

The rest of the paper proceeds as follows. Section 2 presents literature review and hypothesis development while Section 3 describes social capital measurements, the SCP, and data collection. Section 4 discusses the effect of social capital on the acquirer's announcement returns. Section 5 provides additional analyses, Section 6 shows robustness tests, and Section 7 concludes the paper.

## **2. Literature Review and Hypothesis Development**

M&A activities are often inefficient as they are driven by agency problems (Duchin & Schmidt, 2013; Jensen, 1986; Zhao, 2013). As a result, monitoring mechanisms are required to address the opportunistic and self-serving behaviors of the acquirer's managers (Chi & Lee, 2010). Previous studies discuss the role of the takeover market and product market competition as external monitoring mechanisms (Chi & Lee, 2010; Masulis et al., 2007). In contrast, we focus on social capital as an external monitoring mechanism, a collective of societal attributes that captures the benefits of social relationships, social networks, and cooperative societal norms, which acts as an effective deterrent to opportunistic and self-serving behaviors.

Social capital captures the effects of close social relationships and shared societal norms that encourage cooperation in society (Hasan et al., 2017b; Hoi et al., 2019). More specifically, in environments with high social capital, the existence of more connected social relationships, denser social networks, and more frequent social interactions helps

to communicate and enforce good codes of conduct (Coleman, 1988; Spagnolo, 1999). Consequentially, individuals are more likely to behave according to societal norms.

In addition, there exist high marginal costs and penalties for individuals breaching social norms. In the corporate context, managers face significant penalties when they engage in socially unacceptable financial misbehaviors, such as restrictions in future employment, criminal charges, and other severe disciplinary actions (Fich & Shivdasani, 2007; Karpoff et al., 2008; Srinivasan, 2005). There are also non-quantifiable costs such as external social sanctions in the form of social ostracism (Uhlener, 1989) and stigmatization (Posner, 2000) when others expose the misbehavior; and psychological costs such as negative moral sentiments, i.e., guilt and shame (Elster, 1989; Higgins, 1987; Mazar et al., 2008). Such costs of misconduct are magnified in high social capital regions, and consequentially, individuals are more likely to constrain opportunistic behaviors (Coleman, 1988; Elster, 1989; Hasan et al., 2017b).

We hypothesize that in a high social capital environment, managers are less likely to engage in opportunistic and self-serving behaviors, and they tend to act in the interest of shareholders by making value-added acquisitions (the *shareholder value maximization view*). Consistent with this view, Hasan et al. (2017a) argue that civic norms cause managers to anticipate higher psychic costs and higher social sanctions when they avoid taxes. As a result, they show that social capital reduces tax avoidance. Hasan et al. (2017b) argue that social capital causes environmental pressure that constrains firms' opportunistic behaviors, which benefits debt holders, resulting in lower bank loan

spreads and at-issue public debt spreads. Hoi et al. (2019) show that social capital mitigates the agency problems in CEO compensation, and Huang and Shang (2019) find that social capital reduces firm leverage and short-term debt ratios. Social capital also lowers the firm's cost of equity, and the effect is more pronounced when firms have less effective monitoring (Gupta et al., 2018).

According to the *shareholder value maximization view*, we form the following testable predictions. First, acquirers located in counties with higher social capital experience higher announcement returns as their managers undertake deals that benefit shareholders. Second, acquirers in high social capital counties experience larger transaction synergies. Jensen (1986), Scharfstein and Stein (2000), Shah and Thakor (1987), and Rajan et al. (2000), suggest that agency costs give rise to negative operational synergies. Li et al. (2018) argue that opportunistic behaviors cause the highest-synergy bidder, i.e., the bidder that can generate the highest synergy with the target, to fail in acquiring the target, leading to inefficient M&As. Thus, social capital, which mitigates agency problems, is expected to have a positive association with transaction synergies. Third, acquirers situated in areas with higher social capital have better deal selection and target assessment, leading to higher long-term operating performance and long-term stock returns. Finally, the managers of acquirers in high social capital counties exert more effort to complete the transaction, suggesting a negative relationship between social capital and deal duration.

### 3. Data Collection and Summary Statistics

#### 3.1. Social Capital Measurements and the Social Capital Project

Hasan et al. (2020) note that social capital can arise and accumulate at the individual, institutional, and societal levels. Lins et al. (2017) suggest that there are two approaches to measure social capital. The first approach is to measure social capital at the societal level which then applies to individuals of that society. The second approach is to measure social capital at the corporation level. The former is usually measured at the nation, state, or county level (Gupta et al., 2018; Hasan et al., 2017b; Hoi et al., 2019). The latter is either captured by the social networks of the firm's management or CSR activities (Deng et al., 2013; Lins et al., 2017; Sacconi & Antoni, 2010).

As the corporate level measurements of social capital have limitations in capturing the multi-dimension concept of social capital (Lins et al., 2017), we use social capital at the broader societal level. Specifically, we use county-level measures from the Social Capital Project (SCP), a project of the United States Congress Joint Economic Committee<sup>1</sup>. The county-level social capital index (SC index) has four dimensions, comprised of three sub-indexes and one standalone indicator: (i) family unity subindex; (ii) community health subindex; (iii) institutional health subindex; and (iv) Collective Efficacy. The details

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<sup>1</sup> The data can be obtained from the official website of the Social Capital Project. <https://www.lee.senate.gov/public/index.cfm/scp-index> This county-level index provides social capital scores for 2,992 of 3,142 counties, containing 99.7% of the American population. It is generated using ten indicators collected from various data sources dated between 2008 and 2016, primarily from 2013.



of each subindex are described in Appendix A. Importantly, Principal Components Analysis (PCA) was used to generate weights for each dimension to create the SC index. As the data were summarized and reported in April 2018, we follow Gompers et al. (2003), Hasan et al. (2017b), Hilary and Hui (2009), and Hoi et al. (2019) and fill our sample period from 2010 to 2019 with the latest SC index.

The SCP's index has a number of advantages compared to commonly used state level measures such as the Putnam (2000) index and the General Social Survey (GSS) index. First, the SCP SC index is constructed using principal components analysis so that the weight of subindexes ensures better representability. Second, the SCP SC index makes use of higher quality and more recent data.<sup>2</sup> Third, the SCP SC index captures diversity of social capital across counties within states. Figures B1 and B2 present the spatial distribution of *SCAPITAL* at the county level and the state level, respectively. From Figure B1, we can conclude that the social capital of counties within states varies to a significant extent<sup>3</sup>.

In terms of county-level data, one of the most influential and widely used social capital indexes is the Penn State Index. However, this index has shortcomings. When benchmarked against 50 county-level benchmarks reflecting a range of economic, social,

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<sup>2</sup> Data used in the Putnam (2000) index, for example, only covered the period from 1975, the 1980s, and the first half of the 1990s.

<sup>3</sup> For example, the overall state-level SC index for Texas is -1.00. However, the overall county-level index for Texas ranges from 1.31 for Briscoe County to -2.44 for Willacy County.

demographic, educational, health, and other outcomes, the Penn state index does not show strong correlations. In comparison, the SCP SC index correlates strongly (above 0.5 or below -0.5) for 17 indicators. The Penn State index also fails to account for variables relevant to social capital such as family health, the level of volunteering, charitable donation, informal community engagement, social support, or collective efficacy.

### *3.2. Data Collection of Mergers and Acquisitions*

The sample comprises 2,832 completed M&A deals between 2010 to 2019 from Thomson SDC. We impose the following screening criteria: (i) both the acquirer and the target are located in the U.S.; (ii) the acquirer is a public firm, and the target can be a public or a private firm; (iii) the deal value is equal to or greater than \$5 million, (iv) the deal is not classified as spin-offs, recapitalizations, self-tenders, exchange offers, repurchases, acquisitions of remaining interest or a minority stake, and privatizations, and (v) the deal is completed.

Following the literature, we exclude firms from the utility (Standard Industrial Classification (SIC) codes 4900–4999) and the financial industries (SIC codes 6000–6999). As the acquirer's county information is not available in SDC, we use zip codes and detailed address information to identify the county name and county code of the acquirers. Stock price information is obtained from the Center for Research in Security Prices (CRSP). Acquirer characteristics are obtained from Compustat. To mitigate the potential influence of outliers, we winsorize all continuous variables at 2.5% and 97.5%. The summary statistics of the variables are presented in Table 1.

## 4. Empirical Results

### 4.1. Social Capital and Acquirer's Announcement Returns

We estimate the following cross-sectional linear regression to test the empirical relationship between social capital and the acquirer's announcement returns:

$$CAR(-2, 2)(t) = f(\text{Social capital}, \text{Acquirer attributes}(t-1), \text{Deal attributes}(t), \text{Industry dummies}, \text{and Year dummies}) \quad (1)$$

where the dependent variable,  $CAR(-2, 2)$ , is the acquirer's cumulative abnormal returns around the announcement date (date 0), from day -2 to 2. The main independent variable,  $SCAPITAL$ , is the social capital index of the county where the acquirer is located. We follow the M&A literature and control for acquirer characteristics including firm size, proxied by total assets -  $LN(AT)$ , leverage ( $LEVERAGE$ ), return on assets ( $ROA$ ), capital expenditure ( $INVESTMENT$ ), and Tobin's Q (Moeller et al., 2004; John et al., 2015; Lee et al., 2018; Li, 2013; Masulis et al., 2007; McConnell & Muscarella, 1985; Schmidt, 2015). We further control for deal characteristics including deal size ( $LN(DEALVAL)$ ), whether the target is public ( $PUBLIC$ ), whether the acquirer and target are located in the same state ( $SAMESTATE$ ), ratio of stock payment ( $STOCKRATIO$ ), whether the deal is a tender offer ( $TENDER$ ), and whether the acquirer and target are in the same industry ( $SAMEIND$ ) (Bates & Lemmon, 2003; Ishii & Xuan, 2014; John et al., 2015; Kimbrough & Louis, 2012; Moeller et al., 2004; Masulis et al., 2007). We also control for industry (defined by Fama and French 30 industries) and year fixed effects in all specifications and cluster the

standard errors at the industry level. The definitions of variables are provided in Appendix A.

Table 2 reports the estimation results of Equation (1). As shown in Column (1), the coefficient of *SCAPITAL* is positive (0.003) and statistically significant at 5%, consistent with our prediction that social capital positively affects the acquirer's announcement returns. The results suggest that a one standard deviation increase in *SCAPITAL* is associated with a 28-basis-point increase in the acquirer's announcement returns, which translates into an increase of \$46.79 million, given that the average acquirer market capitalization four weeks prior to the announcement date is \$16,712 million.

We further control for the social capital of the county where the target is located, *T\_SCAPITAL*, to address the concern that acquirers located in high social capital counties may choose a target with a high level of social capital, and the selection drives the main results. Column (2) shows that our results remain robust after controlling for target social capital, *T\_SCAPITAL*. Specifically, the coefficient of *T\_SCAPITAL* is statistically insignificant, while the coefficient of *SCAPITAL* is quantitatively similar.

The results for the control variables are consistent with the M&A literature. Larger transactions ( $LN(DEALVAL)$ )<sup>4</sup> are associated with higher announcement returns, and transactions with a higher ratio of stock payment (*STOCKRATIO*) are associated with lower announcement returns. Larger acquirers and acquirers with a higher Q experience lower announcement returns, whereas acquirer leverage increases announcement

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<sup>4</sup> The results are robust to using relative deal size.

returns. Overall, our findings support the *shareholder value maximization view* that acquirers located in a high social capital county tend to make acquisitions that are beneficial to shareholders.

#### 4.2. Instrumented Regressions

The results show a positive relationship between social capital and the acquirer's announcement returns, providing support to the *shareholder value maximization view*. Although we control for various acquirer and deal characteristics and the target's social capital, our findings could be biased due to omitted confounding factors correlated with social capital and announcement returns. To address this endogeneity concern, we use instrumented regressions.

We first use a group of two instruments for social capital, *RACE\_HFD* and *RELIGION*, as in Alesina and La Ferrara (2000), Deng et al. (2013) and Gupta et al. (2018). *RACE\_HFD* is the reverse measurement of racial fragmentation of the acquirer's county. It is the Herfindahl index of three general racial categories: Black, White, and other races using data for the year 1970 provided by the U.S. Census Bureau.<sup>5</sup> We measure *RACE\_HFD* for a given county,  $i$ , as  $RACE\_HFD = \sum_x s_{xi}^2$ , where  $i$  represents a county,  $x$  represents a racial category, and  $s_{xi}$  represents the ratio of the racial population  $x$  in

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<sup>5</sup> Our results remain robust when we use race data in 1990 and 2000 to calculate *RACE\_HFD*. Data can be collected from <https://www.nber.org/research/data/us-intercensal-county-population-data-age-sex-race-and-hispanic-origin>

county  $i$  scaled by the population of that county. A higher value of *RACE\_HFD* indicates a lower level of racial fragmentation, which leads to a higher level of social capital.

*RELIGION* is defined as the ratio of the number of religious adherents in the acquirer's county scaled by the total population of that county in 2000. A higher ratio indicates higher religiosity (Deng et al., 2013). To measure *RELIGION*, we use the U.S. Religion Census data from the Religious Congregations and Membership Study (2000), provided by the Association of Religion Data Archive (ADRA)<sup>6</sup>. The two instruments satisfy the exclusion restriction as it is unlikely that historical measurements of racial fragmentation and religiosity are related to the recent M&A outcomes.

The second group of instruments includes *BLUESTATE* and *ETHNICITY\_HFD*, following Deng et al. (2013) and Hasan et al. (2017b). *BLUESTATE* is a dummy variable equal to one if the acquirer is located in a blue state and zero otherwise. We define a state as a blue state when the Democratic party won the greatest percentage of votes in that state using data for the 2004 U.S. presidential election returns<sup>7</sup>. Blue states tend to be associated with higher levels of social capital (Deng et al., 2013).

*ETHNICITY\_HFD* is the ethnic homogeneity of the acquirer's county, measured by a Herfindahl index generated across four basic ethnic categories: Hispanic, non-Hispanic white, non-Hispanic black, and Asian. We calculate *ETHNICITY\_HFD* using the

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<sup>6</sup> The ARDA provides information on the religiosity of U.S. counties and state every decade.

<sup>7</sup> This data is obtained from the MIT Election Data and Science Lab. <https://electionlab.mit.edu/data>.

following equation:  $ETHNICITY\_HFD = \sum_y s_{yi}^2$ , where  $i$  represents a county,  $y$  represents an ethnic category, and  $s_{yi}$  represents the ratio of the population of ethnic group  $y$  in county  $i$  scaled by the population in that county. We use intercensal estimates data for the year 2000 provided by the U.S. Census Bureau. A higher value of  $ETHNICITY\_HFD$  will represent a higher level of ethnic homogeneity, i.e., less diversity in ethnic groups. Putnam (2007) argues that “people living in ethnically diverse settings appear to ‘hunker down’ – that is, to pull in like a turtle.”, suggesting that ethnic homogeneity leads to an increase in social capital. It is unlikely that historical election returns and ethnic homogeneity are associated to the performance of recent M&As.

Our third group of instruments for social capital include  $RACE\_HFD$ ,  $RELIGION$ , and  $BLUESTATE$ .

The results of instrumented regressions are reported in Table 3. The first-stage regression results in Column (1) show a significant negative (positive) relationship between racial fragmentation (religiosity) and social capital. The two coefficients are also jointly significant ( $F$ -statistic) at 1%. The second-stage regression results are shown in Column (2). We find that  $SCAP\_HAT1$ , the predicted value of social capital in Column (1), is positive and statistically significant, consistent with our main findings.

Similarly, in Column (3), the coefficients of  $ETHNICITY\_HFD$  and  $BLUESTATE$  are both positive and statistically significant in the first-stage regression, suggesting that ethnic homogeneity has a positive relationship with social capital, and counties located in Democratic states tend to have higher levels of social capital relative to those in

Republican states. The two coefficients are jointly significant. The second-stage regression results in Column (4) suggest the main results are robust as *SCAP\_HAT2* is positive and statistically significant.

Columns (5) and (6) report the first-stage and second-stage regression results respectively when we use *RACE\_HFD*, *RELIGION*, and *BLUESTATE* as instruments for social capital. The coefficients of the instruments are positive and the *F*-statistics for the three instruments is jointly statistically significant, suggesting that the instruments satisfy the relevance condition. In Column (6), *SCAP\_HAT3* is positive and statistically significant effect. Overall, the results of instrumented regressions suggest our baseline results are robust to endogeneity concerns.

#### *4.3. Cross-sectional Analyses*

We further investigate the role of social capital as a societal monitoring mechanism. We suggest that social capital has a greater impact where agency problems are more severe. We first examine the conditional effect of social capital on the supermajority required to approve a merger. Gompers et al. (2003) state that the supermajority requirement acts as a form of antitakeover amendment which increases the difficulty of taking over and replacing management. The supermajority requirement limits the extent to which shareholders can affect manager decisions (Bebchuk et al., 2009), thus exacerbating agency problems in the acquiring firm.

The results in Column (1) of Table 4 show that the interaction term between social capital (*SCAPITAL*) and the supermajority required for a merger decision



(*SUPERMAJORITY*), is positive and statistically significant, consistent with our prediction.

Second, we examine the effect of social capital conditional on the acquirer's blockholder ownership. Shleifer and Vishny (1986) state that blockholders as large shareholders can monitor managers. They are willing (large cash flow rights) and able (large voting power) to be involved in the firm's internal decision process, mitigating agency problems and improving firm valuation (e.g., Boubaker et al., 2014; Laeven and Levine, 2008; Maury and Pajuste, 2005).<sup>8</sup> Therefore, we expect the effect of social capital to be less pronounced when the acquirer's blockholder ownership is larger. We define *BLOCKHOLDERS* as the percentage of stock held by owners with five percent or more ownership in the acquirer. The results in Column (2) show that the interaction term between social capital (*SCAPITAL*) and blockholders (*BLOCKHOLDERS*) is negative and statistically significant, consistent with our prediction.

Third, we examine the effect of social capital conditional on acquirer firm size. Large firms tend to have more severe agency problems. They have higher managerial entrenchment costs (Humphery-Jenner and Powell, 2014) and firm size can insulate managers from external discipline by the takeover market, causing managerial entrenchment and value-destruction (Offenberg, 2009; Harford et al., 2012). Larger

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<sup>8</sup> Literature documents the monitoring effort exerted by blockholders both directly (Attig et al., 2009; Cheng et al., 2020; Maury and Pajuste, 2005) and indirectly (Attig et al., 2008; Ben-Nasr et al., 2015; Boubaker et al., 2017).

acquirers make worse acquisitions and experience lower announcement returns (Moeller et al., 2004). We, therefore, expect that social capital will have a larger impact on announcement returns for larger acquirers. The results in Column (3) of Table 4 show that the interaction term of between social capital (*SCAPITAL*) and firm size (*LN(AT)*) is positive and (weakly) significant.

Fourth, we examine the effect of social capital conditional on deal value. Prior studies suggest that larger deal value is often associated with more severe agency problems in the acquiring firm. Overconfident managers tend to bid for larger targets as they overestimate their ability to extract acquisition benefits (Hayward & Hambrick, 1997; Malmendier & Tate, 2008; Roll, 1986). Additionally, these managers may pay excessively for larger targets because of higher private benefits (Grinstein & Hribar, 2004; Harford & Li, 2007; Loderer & Martin, 1990; Morck, Shleifer, & Vishny, 1990). We, therefore, expect that in larger-size transactions, social capital will have a larger impact on the acquirer's announcement returns. The results in Column (4) of Table 4 show that the interaction term between social capital (*SCAPITAL*) and deal size (*LN(DEALVAL)*) is positive and (weakly) significant.

Finally, we examine the effect of social capital conditional on the ratio of stock payment. It is well documented that stock-financed acquisitions are associated with overvaluation in the acquiring firm. Overvalued acquirers often overpay for their target when using stock as the method of payment, and are motivated by managers' self-serving behavior (Fu et al., 2013; Harford & Li, 2007). Hence, we expect that social capital will

have a greater impact on the acquirer's announcement returns in stock-financed transactions. The results in Column (5) of Table 4 show that the interaction term between social capital (*SCAPITAL*) and the ratio of stock payment (*STOCKRATIO*) is positive and significant.

## 5. Additional Analyses

### 5.1. Social Capital and Synergies

The *shareholder value maximization view* suggests that the managers of acquirers located in high social capital counties are less likely to have opportunistic and self-serving behaviors. It is expected that these managers will exert effort to identify targets that deliver economic gains through better due diligence and target assessment. To shed light on this view, we examine the relationship between social capital and transaction synergies:

$$SCAR(-2, 2)(t) = f(\text{Social capital, Acquirer attributes}(t-1), \text{Deal attributes}(t), \text{Industry dummies, and Year dummies}) \quad (2)$$

We follow Moeller et al., (2004), Offenbergl et al., (2014) and Wang & Xie (2009) and measure transaction synergies, *SCAR*(-2, 2), as the value-weighted portfolio of cumulative abnormal returns of the target and the acquirer from day -2 to 2, around the announcement date (day 0).<sup>9</sup> We use the market-adjusted model to measure announcement returns. The portfolio weights are the target's and the acquirer's market

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<sup>9</sup> Our full sample includes 2050 private targets and 782 public targets. We identify 403 transactions where both targets and acquirers are publicly listed.

capitalization four weeks before the announcement date scaled by the sum of their market capitalization.

The results in Column (1) of Table 5 show a positive and significant relationship between social capital and transaction synergies. Specifically, a one standard deviation increase in *SCAPITAL* leads to an increase of 56 basis points in the value-weighted announcement returns. In Column (2), we control for both acquirer and transaction characteristics and find consistent results. Overall, the findings support the *shareholder value maximization view* that acquirers located in higher social capital counties generate greater transaction synergies.

## 5.2. Social Capital and the Acquirer's Long-term Operating Performance

The *shareholder value maximization view* suggests that social capital has a positive impact on the acquirer's long-term operating performance. We follow Huang et al. (2014) and measure the change in operating performance as the difference between the industry-adjusted operating performance before the announcement date (time  $-1$ ) and  $t$  years after the announcement date ( $t$ ), where  $t$  varies from 2 to 5. The industry-adjusted operating performance, *AROA*, is defined as the difference between the acquirer's operating performance and the median operating performance of matched Compustat-listed firms that are in the same 2-digit SIC group. We require that the size (total assets) of the matched firms is between +50% and +150% of the size of the acquirer.

The results in Table 6 show that social capital is positively related to long term operating performance and is statistically significant for longer time horizons (where  $t$  is

between +3 and +5). In Column (2) where operating performance is measured for 3 years after the acquisition ( $\Delta AROA(-1, 3)$ ), the coefficient of *SCAPITAL* (0.005) suggests that a one standard deviation increase in *SCAPITAL* leads to a 26.11% change in industry-adjusted operating performance.<sup>10</sup> Overall, the evidence suggests that social capital increases the acquirer's long-term operating performance.

### 5.3. Social Capital and Acquirer's Long-term Stock Returns

In this section, we examine the effect of social capital on the acquirer's long-term stock returns. We employ a calendar-time portfolio regression method to calculate long-term stock returns. Specifically, we construct an equally weighted portfolio of acquirers that completed their transactions for each calendar month between 2010 to 2019 as in Moeller et al. (2004). The portfolio is rebalanced every month by removing the acquirers that are in the portfolio for 36 months and including the acquirers that have just completed an acquisition. Finally, we regress the portfolio's monthly excess returns on 3 factors, 5 factors, 6 factors, and 7 factors (Carhart, 1997; Fama & French 1992, 1993).

Panel A of Table 7 reports the long-term abnormal returns ( $\alpha$ ) of the equally weighted portfolio of all acquirers.  $\alpha$  is negative in all columns and is significant in Column (1) (3 factor model), weakly significant in column (2) and insignificant in Columns (3) and (4). The results provide limited support that acquirers experience

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<sup>10</sup> The long-term operating performance increases by 0.0047 with a one standard deviation increase in *SCAPITAL*. The average of *AROA(-1)* is 0.018, thus the increase translates into a 26.11% change in the industry-adjusted operating performance.

negative long-term abnormal returns on average, consistent with findings in prior studies (Agrawal et al., 1992).

We split our main sample by the median of social capital and provide the long-term abnormal returns for each subsample in in Panel B (low social capital) and C (high social capital) of Table 7. In Panel B,  $\alpha$  is negative and significant in all models, suggesting that acquirers located in low social capital counties experience negative long-term abnormal returns. The monthly abnormal returns of -0.003 in Columns (1) and (2) are equivalent to an annualized abnormal return of -3.67%, while the monthly abnormal returns of -0.002 in Columns (3) and (4) suggests annualized abnormal returns of -2.43%. Overall, the evidence suggests that acquisitions by firms located in low social capital counties are value-destroying in the long term.

In Panel C of Table 7, we examine the subsample of acquirers in high social capital counties. The  $\alpha$  values are statistically insignificant in all columns, implying that the acquisitions by acquirers located in high social capital counties are not value-destroying in the long term.

In Panel D, we form a long-short strategy and generate its long-term abnormal returns. Specifically, we form portfolios of acquirers located in low and high social capital counties as above and calculate the time series of the differences of the portfolios' excess returns. We then generate  $\alpha$  values for the strategy, i.e., holding the long position for the high social capital portfolio and the short position for the low social capital portfolio. In Panel D, Table 7,  $\alpha$  is positive (0.002) in all specifications, which is equivalent to

annualized abnormal returns of +2.43%. Overall, the evidence suggests a positive impact of social capital on acquirer long-term stock returns.

#### 5.4. Social Capital and Deal Duration

According to the *shareholder maximization view*, social capital prevents the acquirer's managers from engaging in deals that are not in shareholders' interests. As a result, managers will exert more efforts to complete deals, and it is expected that the deal duration is shorter when the social capital of the acquirer's county is high.

We measure deal duration,  $LN(1+DURATION)$ , as the natural logarithm of one plus the number of days between the announcement date and the effective date (Song et al., 2013). The results in Column (1), Table 8 show that the coefficient of *SCAPITAL* is negative and significant, suggesting that social capital reduces deal duration. Specifically, one standard deviation increase in *SCAPITAL* is associated with a 7.12% decrease in deal duration.

We examine deals financed entirely with cash in Column (2) and find that the coefficient of *SCAPITAL* is insignificant. However, for deals financed with a mixture of cash and stock in Column (3), the effect of social capital is more pronounced. The coefficient of *SCAPITAL* of -0.106 indicates that one standard deviation increase in *SCAPITAL* leads to a 9.37% decrease in deal duration. This evidence suggests that the effect of social capital on deal duration is more pronounced when the transaction is not financed fully with cash, i.e., deals with stock payment require greater managerial effort.

## 6. Robustness Tests

In this section, we conduct several analyses to confirm the robustness of our findings.

### 6.1. Social Capital, Corporate Social Responsibility, and Acquirer's Announcement Returns

Deng et al. (2013) provide support for the *stakeholder value maximization view* in that firm-level corporate social responsibility (CSR) activities have a positive impact on acquirer shareholder wealth. High-CSR firms tend to have a strong reputation for honoring implicit contracts and undertake mergers that benefit other stakeholders. Though CSR activities do not encompass all dimensions of social capital (Lins et al., 2017), a concern is that CSR partially represents social capital and may drive our main findings.

To address such concerns, we re-estimate Equation (1) with additional control variables measuring the acquirer's CSR activities. We utilize the KLD CSR dataset which has been extensively used in prior studies (e.g., Deng et al., 2013; Hoi et al., 2019). KLD provides qualitative ratings (1 or 0) to affirmative questions for the strengths and concerns of CSR in different dimensions. We sum the strengths and concerns by firm and year across six dimensions: diversity in the firm, corporate community, the relationship between employees, respect for human rights, working environment, and product. CSR is defined as the total of the net CSR scores for 6 dimensions generated by subtracting the



sum of concerns from that of strengths.<sup>11</sup> We also use other alternative measurements of CSR as control variables, including (i) *CSR\_D*, a dummy variable that equals one if the acquirer has a positive value of *CSR*; (ii) *CSR\_STR*, the sum of the acquirer's CSR strengths across six dimensions; and (iii) *CSR\_CON*, the sum of the acquirer's CSR concerns across six dimensions.

We control for *CSR* in Column (1) of Table 9. The results are consistent with our main findings in that there is a positive and significant relationship between social capital and acquirer announcement returns. The results are also robust to the inclusion of alternative CSR indicators, *CSR\_D*, *CSR\_STR*, and *CSR\_CON* in Columns (2), (3), and (4) of Table 9, respectively. The results suggest that the county level social capital index captures dimensions beyond CSR, supporting the *shareholder value maximization view*.

## 6.2. Alternative Measurements of the Acquirer's Announcement Returns

We analyze the robustness of our findings to alternative measurements of the acquirer's announcement returns. First, we use different event windows for the acquirer's cumulative abnormal returns, from day -1 to 1 (*CAR(-1, 1)*) and day -3 to 3 (*CAR(-3, 3)*). The results in Columns (1) and (2) of Table 10 suggest that our findings are robust to alternative windows for the acquirer's cumulative abnormal returns.

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<sup>11</sup> In the case of missing data, we backfill with the latest data available before the year with missing data. When the data is still missing, we fill the data with the industry year median value, generated using the Fama and French 30 industries.

Second, we use alternative risk-adjusted models to calculate the acquirer's cumulative abnormal returns, the Fama and French three-factor model and the Fama and French three-factor model with momentum. The results in Columns (3) and (4) of Table 10 are consistent with our main findings.

### *6.3. Dimensions of Social Capital and Acquirer's Announcement Returns*

As described in Section 3.1, the social capital index measured at the county level is comprised of four components—family unity (*FAM\_UNITY*), community health (*COM\_HEALTH*), institutional health (*INS\_HEALTH*), and collective efficacy (*COL\_EFF*). In this section, we decompose and analyze the relationship between each of the dimension-level indicators and the acquirer's announcement returns. The results are presented in Table 11. We find a positive but mostly insignificant effect of the first three indicators. However, the coefficient of collective efficacy (*COL\_EFF*) is positive and statistically significant which raises the concern that this subindex may drive the effect of social capital on the acquirer's announcement returns. Therefore, in Appendix D, we use the specification from Table 2 and use a modified measure of social capital, *SCAP\_EX\_EFF*, which excludes collective efficacy. We find that that *SCAP\_EX\_EFF* is positive and significant, suggesting that collective efficacy does not drive the relationship between social capital and the acquirer's announcement returns.

### *6.4. Alternative Measurements of the Social Capital Index*

We test the robustness of our results to alternative measurements of social capital. First, we follow Putnam (2000) and create an alternative social capital index using equal

weights for the four components of the SCP SC index, *EW\_SCAPITAL*. The results in Column (1) of Table 12 are consistent with our main findings. The equally weighted social capital index measure (*EW\_SCAPITAL*) is positive and statistically significant.

We also construct two dummy variables. *SC\_POSITIVE* is a variable equal to one if the social capital of the acquirer's county is positive and zero otherwise. *SC\_HIGH* is a variable equal to one if the social capital of the acquirer's county is in the top quartile of the acquirer's social capital index and zero otherwise. The results in Columns (2) and (3) of Table 12 are consistent with our main findings.

#### 6.5. Pseudo Analyses

In this section, we undertake pseudo-analyses to further confirm the robustness of our main results. First, we select a pseudo value of *SCAPITAL* randomly from all the values of the acquirer's social capital, *SCAPITAL*, in our sample. Second, we obtain a pseudo-announcement date randomly from the sample of dates that satisfies two conditions: (i) The dates differ from the actual M&A announcement date; and (ii) The dates belong to the same year with the actual M&A announcement date. Third, we randomly choose a pseudo-acquirer from a pool of non-acquirer firms listed in CRSP and Compustat in the same year. Fourth, we randomize both announcement dates and acquirers. We then re-run our baseline regression to obtain the coefficient of *SCAPITAL*, repeating this process 1,000 times. The results are in Columns (1) to (4) of Table 13. We also provide the distribution of the bootstrapped coefficient of *SCAPITAL* for the four simulations in Appendix C. The coefficient for *SCAPITAL*, which is 0.003 in our baseline

model, is located on the far right of the distribution (between 2.19 and 3.75 standard deviations from the mean of the bootstrapped coefficients) in all four simulations. These results indicate the low probability that our baseline results are generated by coincidence.

Overall, our additional analyses support our main findings of the positive relationship between social capital and acquirer's announcement returns. This relationship is robust to the inclusion of firm-level CSR activity, alternative measurements of acquirer's announcement returns and social capital index, and pseudo analyses.

## **7. Conclusion**

This paper examines the effect of social capital, characterized by dense social networks, close social relationships, and cooperative social norms, on the M&A outcomes. The *shareholder value maximization view* suggests that social capital functions as a deterrent for opportunistic and self-serving managerial behaviors which improves the outcomes of M&As. We employ a large sample of 2832 M&A transactions during the period 2010-2019 and the county-level social capital index from the Social Capital Project and find that acquirers located in counties with higher social capital experience higher announcement returns. This result is robust to alternative model specifications, endogeneity concerns, controlling for the acquirer's CSR activities, and alternative measurements of announcement returns and social capital.

The effect of social capital on the acquirer's announcement returns is more pronounced when agency problems in the acquirer are more severe, i.e., when the

percentage of blockholder ownership is low, when a supermajority is required to approve a merger, when the acquirer size, the deal size, or the ratio of stock payment is high. Additional analyses suggest that social capital creates higher transaction synergies, enhances the acquirer's long-term operating performance, and increases the acquirer's long-term stock returns, consistent with the *shareholder value maximization view*. We also show that social capital decreases deal duration.

Overall, the results suggest that shareholders of acquirers located in high social capital regions benefit from close social relationships, high social connectedness, and solid cooperative norms at the county level, which constrain managerial opportunistic and self-serving behaviors.

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## Appendix

### A: Definition of Variables

Variable	Description	Data Sources
<b>Main variables</b>		
<i>SCAPITAL</i>	The social capital index of the county where the acquirer is located. The index accounts for four dimensions of social capital, including family unity, community health, institutional health, and collective efficacy, weighted using the Principal Components Analysis (PCA) method.	The Social Capital Project (SCP)
<i>CAR(-2, 2)</i>	The acquirer's cumulative abnormal returns around the announcement date (day 0) generated over the event window of five days, from day -2 to 2. The market-adjusted model is used to generate abnormal returns with CRSP value-weighted returns served as the market benchmark.	CRSP
<b>Deal characteristics</b>		
<i>LN(DEALVAL)</i>	The natural logarithm of the deal value (\$ million).	SDC M&A
<i>SAMESTATE</i>	A dummy variable that equals one if the target and the acquirer are located in the same state and zero otherwise.	SDC M&A
<i>PUBLIC</i>	A dummy variable that equals one if the target is a public firm and zero otherwise.	SDC M&A
<i>STOCKRATIO</i>	The ratio of stock as the method of payment.	SDC M&A
<i>TENDER</i>	A dummy variable that equals one if the transaction is identified as a tender offer and zero otherwise.	SDC M&A
<i>SAMEIND</i>	A dummy variable that equals one if the target and the acquirer operate in the same industry (defined by the first two digits of the SIC codes) and zero otherwise.	SDC M&A
<b>Acquirer characteristics</b>		
<i>LN(AT)</i>	The natural logarithm of the acquirer's total assets.	Compustat
<i>LEVERAGE</i>	The acquirer's total debts scaled by its total assets.	Compustat
<i>ROA</i>	The acquirer's earnings before interest and taxes scaled by its total assets.	Compustat
<i>INVESTMENT</i>	The acquirer's total expenditures scaled by its total assets.	Compustat
<i>Q</i>	The market value of assets scaled by the book value of assets, where the market value of assets is measured as the sum of the book value of debts and market capitalization.	Compustat
<b>Other variables</b>		
<i>SCAP_EX_EFF</i>	The county-level social capital index generated using three dimensions instead of four in <i>SCAPITAL</i> , i.e., family unity, community health, and institutional health.	The Social Capital Project (SCP)
<i>T_SCAPITAL</i>	The social capital index of the county where the target is located. The index accounts for four dimensions of social capital, including family unity, community health, institutional health, and collective efficacy.	The Social Capital Project (SCP)
<i>COL_EFF</i>	The county-level collective efficacy (violent crime rate), a standalone indicator measured by the number of violent crimes per 100,000.	The Social Capital Project (SCP)
<i>FAM_UNITY</i>	The county-level family unity sub-index measured using the PCA method to generate weights for the following indicators:	The Social Capital Project (SCP)

	the share of births that are to unwed mothers (weight=0.52), the share of children living in families headed by a single parent (weight=0.62), and the share of women ages 35-44 who are married (and not separated) (weight=0.59).	
<i>COM_HEALTH</i>	The county-level community health subindex measured using the PCA method to generate weights for the following indicators: the registered non-religious non-profits per 1000 (weight=0.70), the religious congregations per 1000 (weight=0.48), and the informal civil society subindex (weight=0.53). State-level data were used to generate the informal civil society subindex due to the lack of county-level data.	The Social Capital Project (SCP)
<i>INS_HEALTH</i>	The county-level institutional health sub-index measured using the PCA method to generate weights for the following indicators: presidential voting rates (weight=0.63), census mail-back response rates (weight=0.41), and the institution confidence subindex (weight=0.66). State-level data were used to generate the institution confidence subindex due to the lack of county-level data.	The Social Capital Project (SCP)
$\Delta ROA(-1, t)$	Change in the acquirer's adjusted ROA from the fiscal year right before the announcement date (fyr -1) to $t$ fiscal years after the announcement date (fyr + $t$ ). We measure $\Delta ROA(-1, t)$ for $t$ values between +2 and +5.	Compustat
$LN(1+DURATION)$	The natural logarithm of one plus deal duration. Deal duration is the number of days between the effective date and the announcement date.	SDC M&A
<i>SYNERGY</i>	The value-weighted portfolio of cumulative abnormal returns of the target and the acquirer around the announcement date (day 0), from day -2 to 2. The weights are measured as the target's and the acquirer's market capitalization four weeks before the announcement date, scaled by the sum of their market capitalization.	CRSP
<i>CSR</i>	The firm-level CSR performance that equals the sum of the net CSR scores for six qualitative dimensions of CSR including the diversity in the firm, the corporate community, the relationship between employees, the respect for human rights, the working environment, and the product produced. Net CSR scores are calculated by subtracting the sum of concerns from that of strengths.	KLD CSR
<i>CSR_D</i>	A dummy variable that equals one if a firm is socially responsible, i.e., has a positive value for <i>CSR</i> as defined above.	KLD CSR
<i>CSR_STR</i>	The sum of the firm's CSR strengths across six dimensions as defined above.	KLD CSR
<i>CSR_CON</i>	The sum of the firm's CSR concerns across six dimensions as defined above.	KLD CSR
<i>EW_SCAPITAL</i>	The county-level social capital index generated using equal weights for the four components of social capital, i.e., <i>FAM_UNITY</i> , <i>COM_HEALTH</i> , <i>INS_HEALTH</i> , and <i>COL_EFF</i> .	The Social Capital Project (SCP)
<i>SC_POSITIVE</i>	A dummy variable that equals one if the social capital of the acquirer's county is positive and zero otherwise.	The Social Capital Project (SCP)

<i>SC_HIGH</i>	A dummy variable that equals one if the social capital of the acquirer's county is equal to or greater than the median of the M&A sample and zero otherwise.	The Social Capital Project (SCP)
<i>SUPERMAJORITY</i>	The supermajority required to approve a merger, i.e., the voting percentage required to approve a merger decision.	ISS
<i>BLOCKHOLDERS</i>	The blockholder percentage in the acquirer, i.e., the percentage of owners with five percent or more share ownership in the company.	MSCI

***Instrument variables***

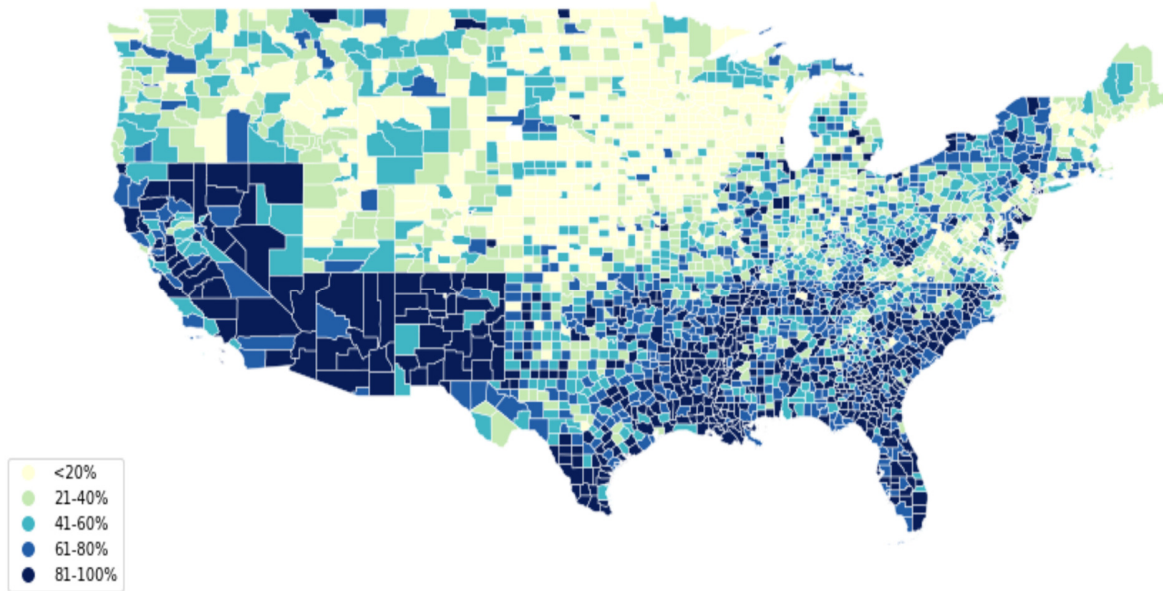
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<i>RACE_HFD</i>	The reverse measure of the racial fragmentation of the acquirer's county, measured by a Herfindahl index calculated across three general racial categories: Black, White, and other races. Census data for the year 1970 is used.	U.S. Census Bureau
<i>RELIGION</i>	The religiosity of the acquirer's county, measured by the number of religious adherents scaled by the total population in that county for the year 2000. A higher ratio indicates higher religiosity.	U.S. Religion Census
<i>BLUESTATE</i>	A dummy variable that equals one if the acquirer is located in a blue state and zero otherwise. A blue state is a state where the Democratic party has the greatest percentage of votes. The data is from the 2004 U.S. presidential elections.	MIT Election Data and Science Lab
<i>ETHNICITY_HFD</i>	The ethnic homogeneity of the acquirer's county, measured by a Herfindahl index calculated across four basic ethnic categories: Hispanic, non-Hispanic white, non-Hispanic black, and Asian. Intercensal estimates for the year 2000 are used.	U.S. Census Bureau

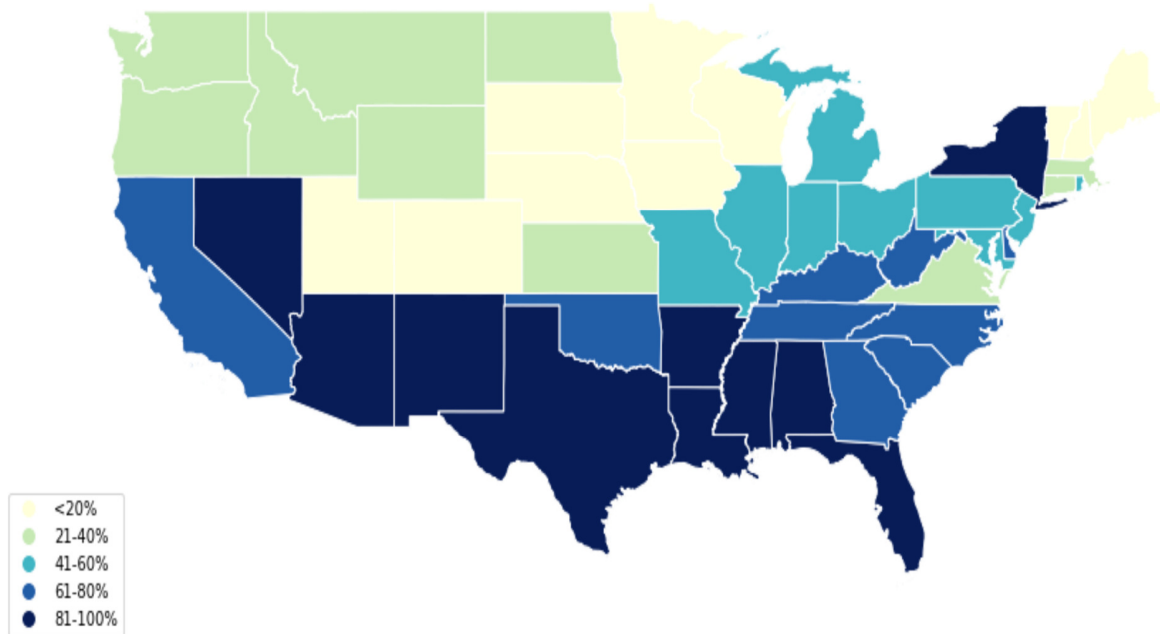
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**B: Social Capital of the United States**

**Figure B1: The county-level Social Capital Index**



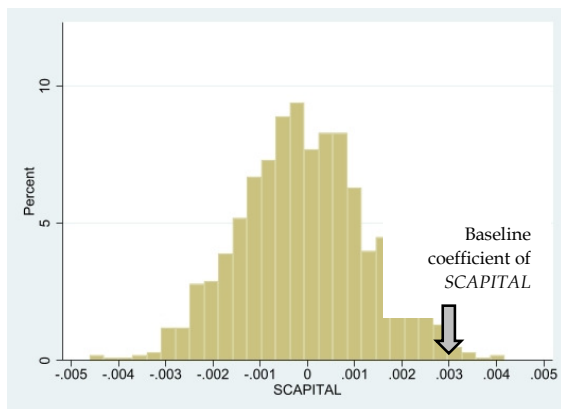
**Figure B2: The State-level Social Capital Index**



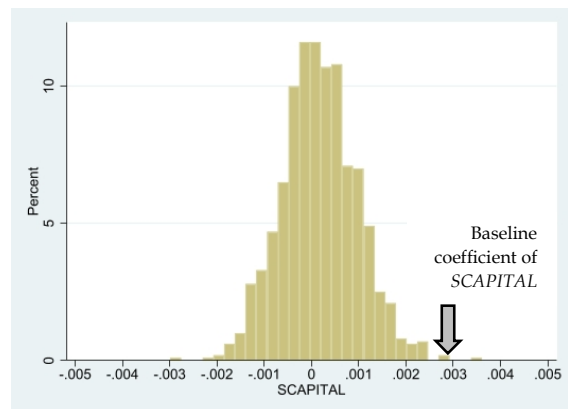
### C: Bootstrapped Coefficients

The figure shows the histograms of the frequency distribution of bootstrapped coefficients of *SCAPITAL*. In panel A, for each M&A deal, we randomly select a value of *SCAPITAL* from the pool of all possible values of the acquirer's social capital, *SCAPITAL*, in our final sample. In panel B, for each M&A deal, we randomly choose a pseudo announcement which satisfies two conditions: (i) being a non-M&A announcement date, and (ii) being a trading day in the same announcement year. In panel C, on each actual announcement date, we randomly select a pseudo acquirer from the pool of non-acquirer firms listed in CRSP and Compustat in the same year. In panel D, we simultaneously randomize the announcement date and the acquirer. We then re-run the baseline regression 1,000 times to obtain 1,000 bootstrapped coefficients of *SCAPITAL*.

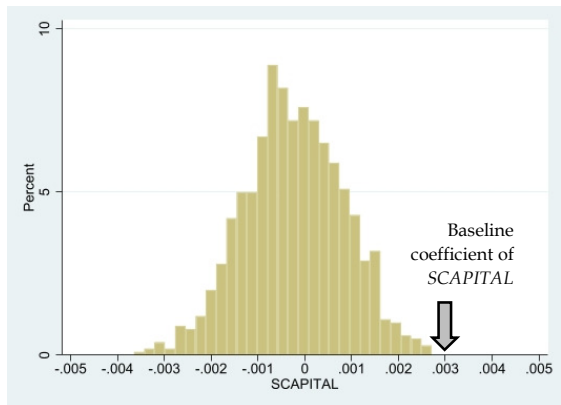
Panel A.



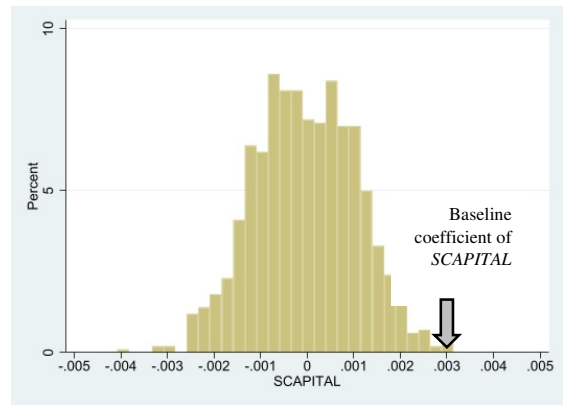
Panel B.



Panel C.



Panel D.



## D: Social Capital Excluding Collective Efficacy

This table reports the regression results of the acquirer's announcement returns on social capital. The main dependent variable,  $CAR(-2, 2)$ , is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2.  $SCAP\_EX\_EFF$  is the county-level social capital index that accounts for three dimensions, i.e., family unity, community health, and institutional health. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$CAR(-2, 2)$
	(1)
$SCAP\_EX\_EFF$	0.003* (1.90)
$LN(DEALVAL)$	0.006*** (5.58)
$SAMESTATE$	0.003 (0.74)
$PUBLIC$	-0.004* (-1.87)
$STOCKRATIO$	-0.020*** (-3.92)
$TENDER$	-0.000 (-0.06)
$SAMEIND$	0.003 (0.81)
$LN(AT)$	-0.008*** (-5.34)
$LEVERAGE$	0.024*** (4.25)
$ROA$	0.049* (2.04)
$INVESTMENT$	0.020 (0.34)
$Q$	-0.005*** (-3.88)
$CONSTANT$	0.045*** (4.33)
Year FE	Yes
Industry FE	Yes
No. of Obs.	2831
$R^2$	0.054



**Table 1:** Descriptive Statistics

This table provides the summary statistics for the sample of 2832 completed M&A transactions between 2010 and 2019. *CAR(-2, 2)* is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2. *SCAPITAL* is the social capital index of the county where the acquirer is located. *LN(DEALVAL)* is the natural logarithm of the deal value (\$ million). *SAMESTATE* is a dummy variable that equals one if the target and the acquirer are located in the same state and zero otherwise. *PUBLIC* is a dummy variable that equals one if the target is a public firm and zero otherwise. *STOCKRATIO* is the ratio of stock as the method of payment. *TENDER* is a dummy variable that equals one if the transaction is identified as a tender offer and zero otherwise. *SAMEIND* is a dummy variable that equals one if the target and the acquirer operate in the same industry and zero otherwise. *LN(AT)* is the natural logarithm of the acquirer's total assets. *LEVERAGE* is the acquirer's total debts scaled by its total assets. *ROA* is the acquirer's earnings before interest and taxes scaled by its total assets. *INVESTMENT* is the acquirer's total expenditures scaled by its total assets. *Q* is the market value of assets scaled by the book value of assets.

	N	Mean	Standard deviation	25th	Median	75th
<i>CAR(-2, 2)</i>	2832	0.012	0.066	-0.020	0.007	0.040
<i>SCAPITAL</i>	2832	-0.266	0.937	-1.120	-0.102	0.484
<i>LN(DEALVAL)</i>	2832	5.079	1.758	3.706	5.047	6.310
<i>SAMESTATE</i>	2832	0.193	0.395	0.000	0.000	0.000
<i>PUBLIC</i>	2832	0.276	0.447	0.000	0.000	1.000
<i>STOCKRATIO</i>	2832	0.100	0.245	0.000	0.000	0.000
<i>TENDER</i>	2832	0.042	0.200	0.000	0.000	0.000
<i>SAMEIND</i>	2832	0.573	0.495	0.000	1.000	1.000
<i>LN(AT)</i>	2832	7.554	1.795	6.259	7.408	8.740
<i>LEVERAGE</i>	2832	0.231	0.189	0.058	0.219	0.344
<i>ROA</i>	2832	0.086	0.078	0.050	0.090	0.129
<i>INVESTMENT</i>	2832	0.034	0.032	0.013	0.024	0.042
<i>Q</i>	2832	2.131	1.099	1.380	1.800	2.473

**Table 2: Social Capital and the Acquirer's Announcement Returns**

This table reports the regression results of the acquirer's announcement returns on social capital.  $CAR(-2, 2)$  is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2.  $SCAPITAL(T\_SCAPITAL)$  is the social capital index of the county where the acquirer (target) is located. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$CAR(-2, 2)$	
	(1)	(2)
<i>SCAPITAL</i>	0.003** (2.45)	0.003** (2.38)
<i>T_SCAPITAL</i>		0.001 (0.48)
<i>LN(DEALVAL)</i>	0.006*** (5.55)	0.006*** (5.54)
<i>SAMESTATE</i>	0.003 (0.69)	0.003 (0.69)
<i>PUBLIC</i>	-0.004* (-1.91)	-0.004* (-1.92)
<i>STOCKRATIO</i>	-0.020*** (-3.92)	-0.019*** (-3.82)
<i>TENDER</i>	-0.000 (-0.03)	-0.000 (-0.04)
<i>SAMEIND</i>	0.003 (0.82)	0.003 (0.83)
<i>LN(AT)</i>	-0.008*** (-5.32)	-0.008*** (-5.34)
<i>LEVERAGE</i>	0.024*** (4.22)	0.024*** (4.25)
<i>ROA</i>	0.049* (2.02)	0.049* (2.02)
<i>INVESTMENT</i>	0.021 (0.36)	0.021 (0.36)
<i>Q</i>	-0.005*** (-3.85)	-0.005*** (-3.82)
<i>CONSTANT</i>	0.046*** (4.34)	0.046*** (4.33)
Year FE	Yes	Yes
Industry FE	Yes	Yes
No. of Obs.	2832	2832
$R^2$	0.054	0.055

**Table 3: Instrumented Regressions**

This table provides instrumented regressions, using (i) racial fragmentation and religiosity, (ii) Democratic state indicator and ethnic homogeneity, (iii) racial fragmentation, religiosity, and Democratic state indicator as instruments for social capital. *CAR*(-2, 2) is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2. *SCAPITAL* is the social capital index of the county where the acquirer is located. *RACE\_HFD* is the reverse measure of the racial fragmentation of the acquirer's county, measured by a Herfindahl index calculated across three racial categories: Black, White, and other races. *RELIGION* is the number of religious adherents in the acquirer's county scaled by the total population in that county. *BLUESTATE* is a dummy variable that equals one if the acquirer is located in a blue state and zero otherwise. *ETHNICITY\_HFD* is the ethnic homogeneity of the acquirer's county, measured by a Herfindahl index calculated across four basic ethnic categories: Hispanic, non-Hispanic white, non-Hispanic black, and Asian. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and *t*-statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significant at 1%, 5%, and 10%, respectively.

	<i>SCAPITAL</i>	<i>CAR</i> (-2, 2)	<i>SCAPITAL</i>	<i>CAR</i> (-2, 2)	<i>SCAPITAL</i>	<i>CAR</i> (-2, 2)
	(1)	(2)	(3)	(4)	(5)	(6)
<i>SCAP_HAT1</i>		0.003** (2.05)				
<i>SCAP_HAT2</i>				0.003** (2.04)		
<i>SCAP_HAT3</i>						0.003** (2.12)
<i>RACE_HFD</i>	5.481*** (41.80)				5.419*** (35.96)	
<i>RELIGION</i>	0.743*** (3.62)				0.657*** (3.52)	
<i>ETHNICITY_HFD</i>			3.331*** (12.76)			
<i>BLUESTATE</i>			0.499*** (8.34)		0.072 (1.41)	
<i>LN(DEALVAL)</i>	0.005 (0.57)	0.006*** (5.59)	-0.002 (-0.20)	0.006*** (5.58)	0.006 (0.74)	0.006*** (5.59)
<i>SAMESTATE</i>	-0.043 (-1.59)	0.004 (0.90)	0.165** (2.07)	0.003 (0.72)	-0.048* (-1.77)	0.004 (0.90)

<i>PUBLIC</i>	-0.068*** (-3.39)	-0.004* (-1.75)	-0.012 (-0.41)	-0.005* (-1.97)	-0.067*** (-3.39)	-0.004* (-1.75)
<i>STOCKRATIO</i>	0.126*** (2.85)	-0.018*** (-3.55)	0.060 (1.39)	-0.019*** (-3.76)	0.126*** (2.88)	-0.018*** (-3.54)
<i>TENDER</i>	-0.013 (-0.20)	-0.001 (-0.07)	-0.102 (-1.19)	0.000 (0.03)	-0.018 (-0.30)	-0.001 (-0.07)
<i>SAMEIND</i>	-0.023 (-1.08)	0.003 (0.78)	-0.028 (-0.82)	0.003 (0.77)	-0.022 (-1.03)	0.003 (0.78)
<i>LN(AT)</i>	0.036*** (5.14)	-0.008*** (-5.46)	0.020 (1.10)	-0.008*** (-5.77)	0.032*** (4.31)	-0.008*** (-5.46)
<i>LEVERAGE</i>	-0.193 (-1.17)	0.025*** (4.37)	-0.228 (-1.31)	0.026*** (4.58)	-0.171 (-1.02)	0.025*** (4.38)
<i>ROA</i>	-0.617** (-2.20)	0.049* (1.89)	-0.462 (-1.21)	0.052** (2.13)	-0.562* (-2.03)	0.049* (1.88)
<i>INVESTMENT</i>	-1.085* (-1.99)	0.016 (0.28)	-1.227** (-2.22)	0.027 (0.43)	-1.040* (-1.96)	0.016 (0.28)
<i>Q</i>	0.011 (0.68)	-0.005*** (-3.81)	0.031** (2.12)	-0.005*** (-3.88)	0.006 (0.40)	-0.005*** (-3.82)
<i>CONSTANT</i>	-5.322*** (-36.50)	0.045*** (4.33)	-2.389*** (-15.53)	0.045*** (4.33)	-5.249*** (-35.75)	0.045*** (4.33)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,794	2,794	2,754	2,754	2,794	2,794
<i>R</i> <sup>2</sup>	0.635	0.053	0.414	0.053	0.636	0.053

**Table 4:** Cross-sectional Analyses

This table reports the regression results of acquirer announcement returns on social capital conditional on the supermajority required to approve a merger, the acquirer's percentage of blockholder ownership, the acquirer's firm size, the deal size, and the ratio of stock payment.  $CAR(-2, 2)$  is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2.  $SCAPITAL$  is the social capital index of the county where the acquirer is located.  $SUPERMAJORITY$  is the supermajority required to approve a merger, i.e., the voting percentage required to approve a merger decision.  $BLOCKHOLDERS$  is the blockholder percentage in the acquirer, i.e., the percentage of owners with five percent or more share ownership in the company.  $LN(AT)$  is the natural logarithm of the acquirer's total assets.  $LN(DEALVAL)$  is the natural logarithm of the deal value (\$ million).  $STOCKRATIO$  is the ratio of stock as the method of payment. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$CAR(-2, 2)$				
	(1)	(2)	(3)	(4)	(5)
$SCAPITAL \times SUPERMAJORITY$	0.006** (2.12)				
$SCAPITAL \times BLOCKHOLDERS$		-0.024** (-2.33)			
$SCAPITAL \times LN(AT)$			0.001* (2.13)		
$SCAPITAL \times LN(DEALVAL)$				0.002* (2.01)	
$SCAPITAL \times STOCKRATIO$					0.016** (2.54)
$SUPERMAJORITY$	-0.001 (-0.18)				
$BLOCKHOLDERS$		-0.012 (-1.11)			
$SCAPITAL$	0.001 (0.69)	0.008*** (2.96)	-0.008 (-1.46)	-0.006 (-1.32)	0.001 (0.78)
$LN(DEALVAL)$	0.004*** (3.80)	0.006*** (4.60)	0.006*** (3.78)	0.007*** (6.02)	0.006*** (5.44)
$SAMESTATE$	-0.002 (-0.68)	0.005 (1.02)	0.003 (0.61)	0.003 (0.66)	0.003 (0.79)
$PUBLIC$	0.000 (0.10)	0.000 (0.00)	-0.004 (-1.22)	-0.004* (-1.93)	-0.004* (-1.78)
$STOCKRATIO$	-0.025*** (-3.71)	-0.016*** (-2.83)	-0.019** (-2.83)	-0.019*** (-3.87)	-0.015*** (-2.87)
$TENDER$	0.006 (0.87)	0.002 (0.25)	0.000 (0.03)	0.000 (0.01)	-0.001 (-0.11)
$SAMEIND$	-0.000 (-0.20)	0.004 (1.53)	0.003 (0.68)	0.003 (0.81)	0.003 (0.83)

<i>LN(AT)</i>	-0.007***	-0.009***	-0.008***	-0.008***	-0.008***
	(-4.01)	(-4.91)	(-4.85)	(-5.32)	(-5.32)
<i>LEVERAGE</i>	0.027***	0.035***	0.023**	0.023***	0.022***
	(3.74)	(5.43)	(2.90)	(4.08)	(3.95)
<i>ROA</i>	-0.045	0.037	0.048	0.049*	0.049**
	(-1.23)	(1.52)	(1.65)	(2.00)	(2.08)
<i>INVESTMENT</i>	0.078	0.050	0.021	0.021	0.021
	(1.05)	(0.84)	(0.38)	(0.36)	(0.37)
<i>Q</i>	0.001	-0.002**	-0.005***	-0.005***	-0.005***
	(0.69)	(-2.52)	(-3.22)	(-3.77)	(-3.92)
<i>CONSTANT</i>	0.038***	0.040***	0.043***	0.043***	0.045***
	(3.39)	(5.65)	(4.16)	(4.13)	(4.40)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1,786	1,985	2832	2832	2832
<i>R</i> <sup>2</sup>	0.065	0.076	0.056	0.056	0.057

**Table 5: Social Capital and Synergies**

This table reports regression results of transaction synergies on social capital. *SYNERGY* is the value-weighted portfolio of cumulative abnormal returns of the target and the acquirer around the announcement date (day 0), from day -2 to 2. The weights are measured as the target's and the acquirer's market capitalization four weeks before the announcement date, scaled by the sum of their market capitalization. *SCAPITAL* is the social capital index of the county where the acquirer is located. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and *t*-statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	<i>SYNERGY</i>	
	(1)	(2)
<i>SCAPITAL</i>	0.006*** (2.21)	0.008** (2.60)
<i>LN(DEALVAL)</i>		0.014*** (4.93)
<i>SAMESTATE</i>		-0.002 (-0.45)
<i>PUBLIC</i>		0.029* (1.85)
<i>STOCKRATIO</i>		-0.025* (-1.81)
<i>TENDER</i>		-0.001 (-0.09)
<i>SAMEIND</i>		0.006 (1.20)
<i>LN(AT)</i>		-0.019*** (-10.77)
<i>LEVERAGE</i>		0.044*** (3.09)
<i>ROA</i>		0.136*** (3.08)
<i>INVESTMENT</i>		0.025 (0.21)
<i>Q</i>		-0.013*** (-5.21)
<i>CONSTANT</i>	0.041*** (59.99)	0.087*** (6.67)
Year FE	Yes	Yes
Industry FE	Yes	Yes
No. of Obs.	403	403
<i>R</i> <sup>2</sup>	0.113	0.254

**Table 6: Social Capital and the Acquirer's Long-term Operating Performance**

This table reports the regression results of the acquirer's long-term operating performance on social capital.  $\Delta ROA(-1, t)$  is the change in the acquirer's adjusted ROA, from the fiscal year right before (fyr -1) to  $t$  fiscal years after (fyr + $t$ ) the announcement date. We measure  $\Delta ROA(-1, t)$  for  $t$  values between +2 and +5. The main independent variable, *SCAPITAL*, is the social capital index of the county where the acquirer is located. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$\Delta ROA$ (-1, 2)	$\Delta ROA$ (-1, 3)	$\Delta ROA$ (-1, 4)	$\Delta ROA$ (-1, 5)
	(1)	(2)	(3)	(4)
<i>SCAPITAL</i>	0.002 (0.88)	0.005** (2.11)	0.005** (2.57)	0.004* (1.79)
<i>LN(DEALVAL)</i>	-0.004*** (-3.34)	-0.005*** (-3.62)	-0.001 (-0.50)	-0.002 (-0.62)
<i>SAMESTATE</i>	-0.004 (-0.68)	-0.001 (-0.10)	0.004 (0.41)	0.007 (0.51)
<i>PUBLIC</i>	-0.008 (-1.58)	-0.011** (-2.72)	-0.011** (-2.15)	-0.011 (-1.52)
<i>STOCKRATIO</i>	0.021*** (3.36)	0.020** (2.29)	0.007 (0.71)	0.016 (1.00)
<i>TENDER</i>	-0.018*** (-3.56)	-0.007 (-1.30)	-0.011 (-0.91)	-0.008 (-0.89)
<i>SAMEIND</i>	0.009** (2.70)	0.007 (1.18)	0.005 (0.63)	0.009 (1.03)
<i>LN(AT)</i>	0.008*** (5.83)	0.010*** (4.97)	0.011*** (5.59)	0.011*** (5.52)
<i>LEVERAGE</i>	0.002 (0.20)	0.003 (0.19)	-0.013 (-0.73)	-0.006 (-0.26)
<i>INVESTMENT</i>	-0.171 (-1.31)	-0.237 (-1.47)	-0.097 (-0.61)	-0.071 (-0.36)
<i>Q</i>	-0.007*** (-2.82)	-0.009** (-2.78)	-0.012** (-2.22)	-0.016*** (-3.67)
<i>CONSTANT</i>	-0.040*** (-3.02)	-0.046** (-2.21)	-0.067*** (-3.00)	-0.063*** (-3.39)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No. of Obs.	2,147	1,826	1,512	1,187
$R^2$	0.080	0.092	0.101	0.095



**Table 7: Social Capital and the Acquirer's Long-term Stock Returns**

This table reports monthly average abnormal returns ( $\alpha$ ) of equally-weighted calendar time portfolios using multi-factor models. A single time series regression is run with the excess returns of the calendar portfolio as the dependent variable and the returns on the three, five, six, and seven factors as the independent variables, including *MKF*, the market portfolio's excess returns; *SMB*, the difference in the returns between small and large market capitalization stock portfolios; *HML*, the difference in the returns between high book-to-market and low book-to-market stock portfolios; *RMW*, the difference between the returns on a diversified portfolio of stocks with robust and weak profitability; *CMA*, the difference in the returns between high and low investment stock portfolios; *MOM*, the momentum factor; and *LIQ*, the liquidity factor. Panel A shows  $\alpha$  of the portfolio created by all acquirers. Panel B and C shows  $\alpha$  of the portfolio of acquirers located in low and high social capital counties, respectively. Panel D shows  $\alpha$  of the long-short strategy, i.e., taking a long position in the portfolio of acquirers located in a high social county and a short position in the portfolio of acquirers located in a low social capital county.

<b>Panel A: The long-term returns of all acquirers</b>				
	3 Factors	5 Factors	6 Factors	7 Factors
	(1)	(2)	(3)	(4)
$\alpha$	-0.002** (-2.05)	-0.002* (-1.78)	-0.001 (-1.13)	-0.001 (-1.06)
<i>MKF</i>	1.083*** (43.22)	1.073*** (42.11)	1.043*** (54.61)	1.042*** (54.33)
<i>SMB</i>	0.601*** (14.74)	0.584*** (13.29)	0.589*** (15.82)	0.590*** (15.88)
<i>HML</i>	-0.016 (-0.34)	0.008 (0.15)	-0.109** (-2.55)	-0.110** (-2.53)
<i>RMW</i>		-0.080 (-1.16)	-0.098* (-1.81)	-0.097* (-1.80)
<i>CMA</i>		-0.063 (-0.97)	-0.021 (-0.43)	-0.019 (-0.38)
<i>MOM</i>			-0.190*** (-7.73)	-0.191*** (-7.75)
<i>LIQ</i>				1.166 (0.79)
No. of Obs.	119	119	119	119
$R^2$	0.966	0.967	0.979	0.980
<b>Panel B: The long-term returns of low-social-capital acquirers</b>				
	3 Factors	5 Factors	6 Factors	7 Factors
	(1)	(2)	(3)	(4)
$\alpha$	-0.003*** (-2.77)	-0.003*** (-2.64)	-0.002** (-2.14)	-0.002** (-2.05)
<i>MKF</i>	1.092*** (40.12)	1.091*** (38.89)	1.061*** (44.30)	1.060*** (44.33)
<i>SMB</i>	0.612*** (13.12)	0.611*** (12.39)	0.617*** (13.42)	0.618*** (13.38)
<i>HML</i>	0.075	0.079	-0.038	-0.039

	(1.39)	(1.40)	(-0.68)	(-0.68)
<i>RMW</i>		-0.005	-0.023	-0.022
		(-0.06)	(-0.33)	(-0.31)
<i>CMA</i>		-0.011	0.030	0.033
		(-0.15)	(0.42)	(0.45)
<i>MOM</i>			-0.190***	-0.191***
			(-5.35)	(-5.35)
<i>LIQ</i>				1.233
				(0.61)
No. of Obs.	119	119	119	119
$R^2$	0.956	0.956	0.968	0.968

**Panel C: The long-term returns of high-social-capital acquirers**

	3 Factors	5 Factors	6 Factors	7 Factors
	(1)	(2)	(3)	(4)
$\alpha$	-0.001	-0.000	0.000	0.000
	(-0.75)	(-0.35)	(0.35)	(0.43)
<i>MKF</i>	1.077***	1.059***	1.030***	1.029***
	(32.28)	(31.89)	(35.30)	(34.89)
<i>SMB</i>	0.584***	0.552***	0.557***	0.558***
	(11.73)	(9.87)	(11.45)	(11.51)
<i>HML</i>	-0.108**	-0.061	-0.175***	-0.176***
	(-2.03)	(-0.92)	(-3.07)	(-3.05)
<i>RMW</i>		-0.149	-0.167**	-0.166**
		(-1.57)	(-2.03)	(-2.02)
<i>CMA</i>		-0.119	-0.079	-0.077
		(-1.20)	(-0.95)	(-0.92)
<i>MOM</i>			-0.185***	-0.186***
			(-5.23)	(-5.20)
<i>LIQ</i>				1.224
				(0.61)
No. of Obs.	119	119	119	119
$R^2$	0.946	0.948	0.960	0.960

**Panel D: The long-term returns of the long-short strategy**

	3 Factors	5 Factors	6 Factors	7 Factors
	(1)	(2)	(3)	(4)
$\alpha$	0.002	0.002	0.002	0.002
	(1.18)	(1.53)	(1.44)	(1.40)
<i>MKF</i>	-0.016	-0.032	-0.031	-0.031
	(-0.43)	(-0.90)	(-0.82)	(-0.82)
<i>SMB</i>	-0.026	-0.057	-0.057	-0.057
	(-0.50)	(-0.97)	(-0.97)	(-0.97)
<i>HML</i>	-0.180***	-0.137**	-0.133*	-0.133*
	(-3.76)	(-2.09)	(-1.76)	(-1.75)
<i>RMW</i>		-0.143	-0.142	-0.142
		(-1.36)	(-1.33)	(-1.33)
<i>CMA</i>		-0.109	-0.111	-0.111
		(-0.91)	(-0.92)	(-0.91)

<i>MOM</i>			0.007 (0.13)	0.007 (0.13)
<i>LIQ</i>				-0.053 (-0.02)
No. of Obs.	119	119	119	119
$R^2$	0.109	0.142	0.142	0.142

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**Table 8: Social Capital and Deal Duration**

This table reports the regression results of deal duration on social capital.  $LN(1+DURATION)$  is the natural logarithm of one plus deal duration.  $DURATION$  is the number of days between the effective date and the announcement date.  $SCAPITAL$  is the social capital index of the county where the acquirer is located. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$LN(1+DURATION)$		
	(1) Full Sample	(2) Cash ratio equals 100%	(3) Cash ratio <100%
<i>SCAPITAL</i>	-0.076** (-2.14)	-0.006 (-0.12)	-0.106** (-2.57)
$LN(DEALVAL)$	0.686*** (16.75)	0.643*** (14.06)	0.739*** (18.31)
<i>SAMESTATE</i>	-0.105 (-1.19)	-0.139 (-1.29)	-0.021 (-0.24)
<i>PUBLIC</i>	0.795*** (10.42)	0.915*** (9.68)	0.786*** (8.81)
<i>STOCKRATIO</i>	0.662*** (6.60)		
<i>TENDER</i>	-0.293* (-2.03)	-0.384* (-1.87)	-0.708*** (-5.13)
<i>SAMEIND</i>	0.036 (0.34)	-0.152 (-1.51)	0.167 (1.44)
$LN(AT)$	-0.085*** (-2.86)	-0.038 (-1.46)	-0.161*** (-4.12)
<i>LEVERAGE</i>	-0.156 (-0.85)	-0.686 (-1.56)	0.135 (0.50)
<i>ROA</i>	-1.388* (-1.98)	-1.126 (-1.46)	-2.245** (-2.38)
<i>INVESTMENT</i>	2.356* (1.83)	6.988*** (5.33)	0.210 (0.12)
<i>Q</i>	-0.003 (-0.10)	-0.052 (-1.23)	0.027 (0.71)
<i>CONSTANT</i>	-0.355* (-2.05)	-0.177 (-1.06)	-0.153 (-0.75)
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
No. of Obs.	2,628	1,007	1,621
$R^2$	0.501	0.500	0.513

**Table 9:** Social Capital, Corporate Social Responsibility, and the Acquirer's Announcement Returns

This table reports the regression results of the acquirer's announcement returns on social capital while controlling for corporate social responsibility measures. *CAR(-2, 2)* is the acquirer's cumulative abnormal returns around the announcement date (day 0) generated over the event window of five days, from day -2 to 2. *SCAPITAL* is the social capital index of the county where the acquirer is located. *CSR* is the sum of the net CSR scores for six qualitative dimensions of CSR. *CSR\_D* is a dummy variable equal to one if the acquirer has a positive value for *CSR* and zero otherwise. *CSR\_STR* is the sum of the acquirer's CSR strengths across six dimensions. *CSR\_CON* is the sum of the acquirer's CSR concerns across six dimensions. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and *t*-statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	<i>CAR(-2, 2)</i>			
	(1)	(2)	(3)	(4)
<i>SCAPITAL</i>	0.003** (2.42)	0.003** (2.41)	0.003** (2.45)	0.003** (2.48)
<i>CSR</i>	0.001 (1.23)			
<i>CSR_D</i>		0.004 (0.89)		
<i>CSR_STR</i>			0.001 (1.54)	
<i>CSR_CON</i>				0.001 (0.83)
<i>LN(DEALVAL)</i>	0.006*** (5.66)	0.006*** (5.48)	0.006*** (5.74)	0.006*** (5.46)
<i>SAMESTATE</i>	0.003 (0.78)	0.003 (0.78)	0.003 (0.80)	0.003 (0.80)
<i>PUBLIC</i>	-0.004* (-1.95)	-0.004* (-1.95)	-0.005* (-1.98)	-0.005* (-2.02)
<i>STOCKRATIO</i>	-0.019*** (-3.87)	-0.019*** (-3.83)	-0.019*** (-3.87)	-0.019*** (-3.84)
<i>TENDER</i>	-0.000 (-0.03)	-0.000 (-0.05)	-0.000 (-0.04)	-0.001 (-0.07)
<i>SAMEIND</i>	0.003 (0.96)	0.003 (0.96)	0.003 (0.99)	0.003 (0.96)
<i>LN(AT)</i>	-0.009*** (-6.27)	-0.009*** (-6.14)	-0.009*** (-5.93)	-0.009*** (-5.15)
<i>LEVERAGE</i>	0.023*** (3.99)	0.022*** (3.95)	0.023*** (4.14)	0.022*** (3.95)
<i>ROA</i>	0.050* (1.23)	0.051** (1.54)	0.050** (1.54)	0.052** (1.54)

	(2.05)	(2.09)	(2.06)	(2.15)
<i>INVESTMENT</i>	0.016	0.016	0.014	0.017
	(0.26)	(0.27)	(0.24)	(0.29)
<i>Q</i>	-0.005***	-0.005***	-0.005***	-0.005***
	(-3.75)	(-3.77)	(-3.75)	(-3.68)
Constant	0.048***	0.047***	0.049***	0.046***
	0.055	0.055	0.055	0.055
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	2,815	2,815	2,815	2,815
$R^2$	0.055	0.055	0.055	0.055

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**Table 10:** Social Capital and Alternative Measurements of the Acquirer's Announcement Returns

This table reports estimation results of the baseline model using alternative measurements of announcement returns.  $CAR(-t, t)$  is the acquirer's cumulative abnormal returns around the announcement date (day 0) generated over the event window of  $(2t+1)$  days, from day  $-t$  to  $t$ . The market-adjusted model, the Fama and French three factors model, and the Fama and French three models with momentum are used to generate  $CAR(-t, t)$ . *SCAPITAL* is the social capital index of the county where the acquirer is located. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

Model	Market-adjusted model		Fama and French three factors	Fama and French three factors with momentum
	$CAR(-1, 1)$	$CAR(-3, 3)$	$CAR(-2, 2)$	$CAR(-2, 2)$
	(1)	(2)	(3)	(4)
<i>SCAPITAL</i>	0.002** (2.57)	0.003** (2.06)	0.003** (2.54)	0.003** (2.58)
<i>LN(DEALVAL)</i>	0.005*** (5.50)	0.006*** (3.91)	0.005*** (5.05)	0.006*** (5.02)
<i>SAMESTATE</i>	0.002 (0.58)	0.006 (1.48)	0.003 (0.82)	0.003 (0.75)
<i>PUBLIC</i>	-0.003 (-1.59)	-0.003 (-0.89)	-0.004* (-1.76)	-0.004* (-1.89)
<i>STOCKRATIO</i>	-0.021*** (-3.98)	-0.023*** (-3.17)	-0.019*** (-4.01)	-0.020*** (-3.99)
<i>TENDER</i>	-0.001 (-0.15)	-0.002 (-0.29)	0.001 (0.20)	0.001 (0.14)
<i>SAMEIND</i>	0.003 (0.96)	0.005 (1.59)	0.003 (0.90)	0.003 (0.97)
<i>LN(AT)</i>	-0.008*** (-6.05)	-0.009*** (-5.00)	-0.007*** (-5.08)	-0.007*** (-4.83)
<i>LEVERAGE</i>	0.018*** (3.28)	0.030*** (4.86)	0.020*** (3.74)	0.020*** (3.58)
<i>ROA</i>	0.032 (1.37)	0.050 (1.65)	0.055** (2.49)	0.055** (2.58)
<i>INVESTMENT</i>	0.005 [0.12]	0.019 (0.29)	0.004 (0.08)	0.016 (0.31)
<i>Q</i>	-0.004*** (-4.81)	-0.004*** (-3.70)	-0.005*** (-5.44)	-0.005*** (-5.38)

<i>CONSTANT</i>	0.047*** (5.33)	0.049*** (4.80)	0.040*** (4.17)	0.039*** (3.94)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	2,832	2,832	2,832	2,832
$R^2$	0.047	0.045	0.050	0.052

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**Table 11:** Dimensions of Social Capital and the Acquirer's Announcement Returns

This table reports the regression results of the acquirer's announcement returns on individual dimensions of the SCP social capital index.  $CAR(-2, 2)$  is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2.  $FAM\_UNITY$  is the county-level family unity subindex.  $COM\_HEALTH$  is the county-level sub-index.  $INS\_HEALTH$  is the county-level institutional health sub-index.  $COL\_EFF$  is the county-level collective efficacy (violent crime rate) measured by the number of violent crimes per 100,000. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$CAR(-2, 2)$			
	(1)	(2)	(3)	(4)
$FAM\_UNITY$	0.002 (1.68)			
$COM\_HEALTH$		0.002 (0.95)		
$INS\_HEALTH$			0.002 (1.45)	
$COL\_EFF$				0.002** (2.30)
$LN(DEALVAL)$	0.006*** (5.55)	0.006*** (5.62)	0.006*** (5.57)	0.006*** (5.51)
$SAMESTATE$	0.002 (0.54)	0.003 (0.72)	0.003 (0.75)	0.003 (0.63)
$PUBLIC$	-0.004* (-1.87)	-0.004* (-1.85)	-0.004* (-1.86)	-0.005* (-2.01)
$STOCKRATIO$	-0.020*** (-3.88)	-0.019*** (-3.90)	-0.020*** (-3.91)	-0.019*** (-3.86)
$TENDER$	-0.000 (-0.04)	-0.001 (-0.11)	-0.000 (-0.05)	0.000 (0.00)
$SAMEIND$	0.003 (0.82)	0.003 (0.82)	0.003 (0.82)	0.003 (0.81)
$LN(AT)$	-0.008*** (-5.32)	-0.008*** (-5.30)	-0.008*** (-5.29)	-0.008*** (-5.30)
$LEVERAGE$	0.024*** (4.25)	0.023*** (4.16)	0.023*** (4.05)	0.023*** (4.10)
$ROA$	0.050* (2.05)	0.049* (2.00)	0.048* (1.98)	0.048* (1.99)
$INVESTMENT$	0.020 (0.34)	0.018 (0.30)	0.019 (0.32)	0.021 (0.36)
$Q$	-0.005***	-0.005***	-0.005***	-0.005***

	(-3.81)	(-3.84)	(-3.87)	(-3.80)
<i>CONSTANT</i>	0.045***	0.047***	0.045***	0.046***
	(4.21)	(4.23)	(4.34)	(4.32)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No. of Obs.	2832	2832	2832	2832
$R^2$	0.054	0.053	0.054	0.054

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**Table 12:** Alternative Measurements of Social Capital

This table reports estimation results of the baseline model using alternative measurements of social capital.  $CAR(-2, 2)$  is the cumulative abnormal returns of the acquirer around the announcement date (day 0) generated over the event window of five days, from day -2 to 2.  $EW\_SCAPITAL$  is the county-level social capital index generated using equal weights for the four components of  $SCAPITAL$ .  $SC\_POSITIVE$  is a dummy variable that equals one if the social capital of the acquirer's county is positive and zero otherwise.  $SC\_HIGH$  is a dummy variable equal to one if the social capital of the acquirer's county is in the top quarter of social capital and zero otherwise. Definitions of other variables are shown in Appendix A. The standard errors are clustered at the industry level, and  $t$ -statistics are presented in parentheses. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10%, respectively.

	$CAR(-2, 2)$		
	(1)	(2)	(3)
$EW\_SCAPITAL$	0.004** (2.45)		
$SC\_POSITIVE$		0.004* (1.77)	
$SC\_HIGH$			0.007** (2.64)
$LN(DEALVAL)$	0.006*** (5.56)	0.006*** (5.58)	0.006*** (5.61)
$SAMESTATE$	0.003 (0.70)	0.003 (0.66)	0.002 (0.62)
$PUBLIC$	-0.004* (-1.97)	-0.004* (-1.81)	-0.004* (-1.92)
$STOCKRATIO$	-0.019*** (-3.90)	-0.020*** (-3.90)	-0.019*** (-3.93)
$TENDER$	-0.000 (-0.02)	-0.000 (-0.06)	-0.000 (-0.02)
$SAMEIND$	0.003 (0.80)	0.003 (0.82)	0.003 (0.84)
$LN(AT)$	-0.008*** (-5.33)	-0.008*** (-5.23)	-0.008*** (-5.21)
$LEVERAGE$	0.024*** (4.23)	0.024*** (4.27)	0.024*** (4.21)
$ROA$	0.049* (2.02)	0.050* (2.03)	0.049* (2.02)
$INVESTMENT$	0.021 (0.37)	0.018 (0.31)	0.021 (0.36)
$Q$	-0.005*** (-3.85)	-0.005*** (-3.76)	-0.005*** (-3.79)
$CONSTANT$	0.046*** (4.34)	0.044*** (4.28)	0.039*** (3.84)

Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Observations	2,831	2,832	2,832
$R^2$	0.054	0.054	0.055

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**Table 13:** Pseudo-Analyses of Social Capital and the Acquirer's Announcement Returns

This table reports the regression results of the acquirer's announcement returns on social capital using pseudo-analyses. The first row reports the coefficients of *SCAPITAL* in the baseline model. The second row reports the means and standard deviations of the bootstrapped coefficients of *SCAPITAL* (in parentheses). The third row show the distances between the baseline *SCAPITAL* and the mean of bootstrapped *SCAPITAL*, measured as the number of standard deviations of bootstrapped *SCAPITAL*. The four columns show four types of pseudo analyses. In Column (1), we select a pseudo value of *SCAPITAL* randomly from all the values of the acquirer's social capital. In Column (2), we obtain a pseudo-announcement date randomly from the sample of dates that satisfies two conditions: (i) The dates differ from the actual M&A announcement date; and (ii) The dates belong to the same year as the actual M&A announcement year. In Column (3), we randomly choose a pseudo-acquirer from a pool of non-acquirer firms listed in CRSP and Compustat in the same year. In Column (4), we randomize both the announcement date and the acquirer. We re-run the baseline regression to obtain the coefficient of *SCAPITAL*, repeating this process 1,000 times.

	CAR(-2, 2)			
	Pseudo <i>SCAPITAL</i> (1)	Pseudo Announcement date (2)	Pseudo Acquirer (3)	Pseudo Acquirer and Announcement date (4)
<i>Baseline SCAPITAL</i>	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)
<i>Bootstrapped SCAPITAL</i>	-0.00004 (0.00137)	0.00017 (0.00080)	-0.00024 (0.00107)	-0.00003 (0.00111)
<i>Normality tests of bootstrapped SCAPITAL</i>				
<i>Baseline coefficient of SCAPITAL as the number of standard deviations from the mean of bootstrapped coefficients of SCAPITAL</i>	2.19	3.75	2.80	2.70