JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS

doi:10.1017/S0022109023000790

In the CEO We Trust: Negative Effects of Trust Between the Board and the CEO

Kee-Hong Bae
York University Schulich School of Business and ECGI
kbae@schulich.yorku.ca (corresponding author)

Sadok El Ghoul
University of Alberta Campus Saint-Jean
elghoul@ualberta.ca

Zhaoran (Jason) Gong
Xi'an Jiaotong-Liverpool University International Business School Suzhou Department of Finance
Zhaoran.Gong@xjtlu.edu.cn

Omrane Guedhami
University of South Carolina Darla Moore School of Business
omrane.guedhami@moore.sc.edu

Abstract

In this study, we investigate whether and how trust between board members and the CEO (board–CEO trust) affects the performance of mergers and acquisitions. Contrary to conventional wisdom, we find that firms with higher levels of board–CEO trust exhibit poor M&A performance. High trust is associated with low acquisition announcement returns, long-term stock return performance, and post-deal operating performance. This negative effect of board–CEO trust is more pronounced among acquiring companies prone to agency problems. Our results suggest that, in the institutional setting of corporate boards, high trust can be too much of a good thing.

I. Introduction

Extensive literature provides evidence on how board structure (e.g., size, independence, and diversity) affects board decision-making and firm performance. Little is known, however, about the effects of board culture on board performance. In this study, we investigate whether and how one aspect of board culture, namely,

We thank the reviewer for insightful and constructive comments that greatly improved the article. We are grateful for comments from Warren Bailey, Nancy Buchan, Pierre Chaigneau, Ming Dong, Pouyan Foroughi, Melissa Frye, Louis Gagnon, Vidhan Goyal, Kiridaran Kanagaretnam, Jun-Koo Kang, Ambrus Kecskés, Kai Li, Lilian Ng, Duc Duy (Louis) Nguyen, Yihui Pan, Ari Pandes (NFA discussant), Jin Wang, Wei Wang, and Xiangang Xin. We also thank seminar participants at Queen's University, Lingnan University, and Korea University, and participants at the 2020 Northern Finance Association meeting, the 2020 Financial Management Association meeting, and the 2020 Southern Finance Association meeting. Bae and El Ghoul appreciate the generous financial support from Canada's Social Sciences and Humanities Research Council.

the extent to which board members trust the CEO (board–CEO trust),[1] affects board performance in the setting of mergers and acquisitions (M&As).

A priori, the effect of board–CEO trust on board performance can be either positive or negative. On the one hand, trust can positively affect board effectiveness by serving as an informal mechanism that substitutes for board monitoring and incentive-based pay, which are standard mechanisms for mitigating agency problems (Hilary and Huang (2016)). If the board is confident that the CEO will not engage in opportunistic behavior, costly tools to mitigate moral hazard will not be required. Trust can also facilitate information exchange between the CEO and the board, which is essential for effective boards (Raheja (2005), Adams and Ferreira (2007), and Harris and Raviv (2008)).

On the other hand, trust may negatively affect board effectiveness. A firm's board is a team, but it has unique characteristics that distinguish it from a traditional team. For example, it is self-managing, and involves interdependent directors who have the final say on major corporate decisions such as M&As. The social psychology literature on small-group decision-making has suggested that a self-managing team characterized by a high degree of trust can have a powerful influence on individuals, persuading them to conform (Baron, Vandello, and Brunsman (1996)) and engage in *groupthink* (Janis (1982)).[2] These social forces make it difficult for individual directors on high-trust boards to monitor (O'Connor (2003), Langfred (2004)), which may result in ineffective oversight and poor corporate decisions.[3] Consistent with the negative view, Hayes, Jiang, and Pan (2021) find that a higher level of regional social trust is associated with fewer complaints filed against financial institutions in that region, suggesting that social trust leads to less monitoring. The "dark side" of trust is also documented in other business contexts. For example, Skinner, Dietz, and Weibel (2014) identify the circumstances under which trust can become a "poisoned chalice" for the parties involved. Zahra, Yavuz, and Ucbasaran (2006) highlight the negative effects of trust on new business creation in established companies. Villena, Revilla, and Choi (2011) show that too much trust in supplier–customer relationships can reduce performance in supply chain management.

To distinguish between the competing views of board trust, we investigate the effect of board–CEO trust on the board's M&A decisions. M&As, which require

[1]A board of directors typically consists of a CEO, inside directors, and outside directors. Here, we refer to CEOs as distinct from boards. We use the terms "board trust" and "board–CEO trust" interchangeably throughout the article.

[2]Janis ((1982), p. 9) defines groupthink as "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' striving for unanimity override their motivation to realistically appraise alternative courses of action." Prior work argues that groupthink in the boardroom contributed to corporate scandals such as Enron and WorldCom (O'Connor (2003), Canet (2016)).

[3]In this article, we focus on the monitoring role of boards because the effect of board–CEO trust on a board's advisory role is not clear. Trust may improve communication and information exchange between the CEO and the board, which would facilitate effective advising. Moreover, a reduced need for monitoring can allow more effort to be given to advising, as board monitoring and advising functions are substitutes (Armstrong, Guay, and Weber (2010)). Alternatively, pressure to conform and groupthink on a high-trust board may reduce advising effectiveness, and if monitoring and advising are complementary (Brickley and Zimmerman (2010)), less monitoring may be associated with less advising.

board approval, offer an ideal setting to test the board-trust effects because they are among the most important investment decisions that boards make in terms of their impact on a firm's valuation. The positive view of board trust predicts nonnegative M&A performance, whereas the negative view predicts negative M&A performance.

To measure board–CEO trust, we first match directors' and CEOs' family names with their ancestral countries of origin using information from Ancestry.com (Liu (2016), Pan, Siegel, and Wang (2017), (2019), and Giannetti and Zhao (2019)). We then use the Eurobarometer survey data on country-pair bilateral trust scores as used in Guiso, Sapienza, and Zingales (2009) to capture the level of trust between the countries of origin of a CEO and a director. After measuring trust between all director–CEO pairs on a given board, we compute board–CEO trust as the average of their trust scores. The key assumption underlying our measure of trust is that second- or later-generation descendants of immigrants, all born and raised in the same country, continue to exhibit the cultural traits of their forebears (Guiso, Sapienza, and Zingales (2006), Alesina, Giuliano, and Nunn (2013), and Nguyen, Hagendorff, and Eshraghi (2018)).

We note that our measure of trust is related to generalized trust rather than personalized trust. While personalized trust evolves over time based on repeated interpersonal interactions, generalized trust is instantaneous and presumed (Durlauf and Fafchamps (2006)). One could argue that directors' repeated interactions with the CEO can lead the board to build an optimal level of trust in the CEO, which should not hurt board effectiveness. An optimal level of trust built through repeated interactions concerns personalized trust. In contrast, generalized trust (our focus in this study) reflects an implicit bias where particular qualities are unconsciously attributed to a member of a certain social group (Greenwald and Banaji (1995)), and its effect on board effectiveness is an open empirical question.[4]

We focus on M&A deals conducted by S&P 1500 firms from 1996 to 2017. This results in a sample of 2,865 M&A observations. In our main analysis, we capture M&A performance using the acquirer's cumulative abnormal return (CAR) during the 3 days around an M&A deal announcement. We find that board–CEO trust is significantly negatively related to the acquirer's CAR. This effect is also economically significant. In our baseline regression model, a 1-standard-deviation increase in board–CEO trust is associated with a 0.60% decline in acquirer announcement returns. This decline is larger in magnitude than the average announcement return of 0.39%. The negative effect of board–CEO trust on announcement returns is robust to using alternative board–CEO trust measures, sample periods, and event windows. We note that when we measure overall board trust using the average of the bilateral trust scores of all pairs of directors, it is not related to announcement returns. The evidence suggests that the key determinant of board performance is not trust among directors, but rather the level of trust between the board and the CEO.

We conduct several robustness tests to address concerns about our board–CEO trust measure. For example, high board–CEO trust may be due to powerful CEOs who influence the selection of board members (e.g., same ethnic background) in poorly governed firms. In such a case, our findings may be driven by weak firm

[4]It is not clear how the two types of trust feed off each other. We acknowledge that personalized trust in a board may have different value implications from those of generalized trust. Distinguishing the different effects would be of benefit in future research.

governance. We find that the negative effect of board–CEO trust on announcement returns is robust to controlling for measures of firm governance. A related concern is that our trust measure may proxy for other aspects of culture among board members. We partly mitigate this concern by including a control for the board–CEO cultural distance in all regressions. We measure cultural distance in a similar way to board–CEO trust, using the cultural dimensions proposed by Hofstede (1984). To further mitigate this concern, we also control for religious and language similarity between the CEO and the board, the geographic distance between the ancestral countries of the CEO and the board, and the board ancestral diversity.

While we find some evidence that cultural distance matters, we show that controlling for these additional measures of culture does not change our results on the effect of board–CEO trust on announcement returns, suggesting that the trust effect we document is distinct from the effect of cultural differences. We also examine whether our measure of board–CEO trust captures characteristics of family firms, CEO founder firms, or certain CEO characteristics, such as CEO overconfidence. We find that the negative effect of board–CEO trust remains unchanged after controlling for these characteristics variables.

In an additional analysis, we find that board–CEO trust is significantly and negatively associated with acquirer long-term stock return performance, as measured by buy-and-hold abnormal returns (BHARs) from deal announcement to completion or 1-year post-announcement. We also find that board–CEO trust is significantly and negatively related to post-merger operating performance. Moreover, when acquirers with high board–CEO trust receive negative market feedback after deal announcements, they are less likely to withdraw their deals. This evidence indicates that high-trust boards are associated with decreased board monitoring of CEOs, resulting in poor acquisition decisions.

One might argue that our measure of board–CEO trust captures board composition rather than the interaction between CEO and director in which board directors' trust in CEO matters. We rerun our empirical tests using a pseudo-trust measure. We construct this measure using former and/or succeeding CEOs' information and actual board information at the time of the deal announcement. If the effect we attribute to trust is simply due to board composition, we should find a significant effect from the pseudo-trust measure. We find no such effect, suggesting that the negative effect of board–CEO trust on merger outcome is unlikely to be caused by board composition alone but reflects the interaction between sitting CEOs and directors.

Although the cultural traits that a director shares with her ancestors are likely exogenously determined with respect to the firm, the selection of CEO and directors is not. Hence, our trust measure is endogenous. To mitigate endogeneity concerns, we conduct 2-stage least squares regressions in which we instrument for board trust using county-level trust. Because most U.S. residents are descendants of immigrants, we use an ancestry-based measure of local trust based on the distribution of county residents with foreign ancestral backgrounds. We find that the instrumented board trust is significantly and negatively associated with M&A announcement returns and post-merger long-term stock returns.

We next examine whether the negative effect of board–CEO trust on acquirer M&A performance is more pronounced for acquirers with more severe agency problems, and hence greater monitoring needs. For these tests, we identify two groups of deals where the acquirers have high- and low-agency costs based on

proxies for free cash flow (FCF) and investment opportunities (Chen, Chen, and Wei (2011)). Acquirers with above (below) sample median FCF and below (above) sample median investment opportunities are identified as having high- (low-) agency costs. We find that the negative effect of board–CEO trust on M&A performance is stronger for acquirers with high-agency costs than for those with low-agency costs. These results further support the view that board–CEO trust can lead to suboptimal board monitoring in the M&A decision-making process. Because firms with more severe agency problems need more monitoring, weaker monitoring due to high board–CEO trust can be particularly harmful.

Our study is closely related to Bottazzi, Da Rin, and Hellmann (2016). Using data on European venture capital and the same Eurobarometer measure of bilateral trust that we use, they examine the effect of trust in the context of venture capital. They find that trust is negatively related to successful exits and positively related to investments. Their theoretical model predicts a negative relation between trust and investments' success rate. This is because trusting venture capital investors are more willing to invest in high-risk companies, which likely have lower success probabilities. Our study is also related to Zheng and Zhu (2021), who find that (management board) chair–CEO trust positively affects performance in Chinese firms. We note that their evidence is specific to the Chinese setting, where board governance structure consists of a management board and a supervisory board. Because the management board chair and the CEO are regarded as the two most important decision makers in Chinese companies, and because the monitoring role is delegated to the supervisory board, chair–CEO trust in Zheng and Zhu (2021) only captures the advisory role of the management board chair. In contrast, the unitary board structure of U.S. firms offers an ideal setting to test the effect of (full) board–CEO trust on the effectiveness of board monitoring. While our results suggest that board–CEO trust undermines board effectiveness, we do not find that chair–CEO trust affects monitoring, consistent with the different board governance structures between China and the United States.

Our study contributes to several strands of the literature. First, it adds to the literature on corporate board governance (see Adams, Hermalin, and Weisbach (2010) for a literature review) by providing evidence on how board culture affects CEO–board dynamics and board performance. Specifically, we show that board–CEO trust is an important aspect of corporate board governance that affects CEO–board dynamics, in addition to CEO tenure, chair duality, and board independence (Graham, Kim, and Leary (2020)). Second, our study adds to the growing literature that uses family names to infer individuals' cultural backgrounds (Liu (2016), Pan et al. (2017), (2019), and Giannetti and Zhao (2019)).

Finally, our study adds to the literature on trust.[5] Most research finds that high levels of trust improve outcome variables. Notable exceptions are findings that trust

[5]Studies of trust address economic growth and social efficiency (Knack and Keefer (1997), La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997), and Algan and Cahuc (2010)), stock market participation (Guiso, Sapienza, and Zingales (2008)), trade and investments between countries (Guiso et al. (2009)), venture capital investment (Bottazzi et al. (2016)), cross-border M&As (Ahern, Daminelli, and Fracassi (2015)), financial reporting (Garrett, Hoitash, and Prawitt (2014)), tax avoidance (Hasan, Hoi, Wu, and Zhang (2017a)), risk-taking (Kanagaretnam, Lobo, Wang, and Whalen (2019)), debt contracting (Hasan, Hoi, Wu, and Zhang (2017b)), corporate innovation (Xie, Zhang, and Zhang (2022)), and bank-customer relations (Hayes et al. (2021)).

is negatively related to successful venture capital exits (Bottazzi et al. (2016)), individuals in either tail of the trust distribution perform worse than those with an "average" level of trust (Butler, Giuliano, and Guiso (2016)), and equity analysts with extremely high or low levels of trust make less accurate earnings forecasts than those in the middle of the distribution (Bhagwat and Liu (2020)). Our evidence indicates that a board placing high trust in a CEO can lead to inefficient M&A investment decisions.[6]

The remainder of this study is organized as follows: In Section II, we describe our sample construction and variables. Section III reports our empirical results on the relation between board–CEO trust and M&A performance. Section IV concludes.

II. Sample Construction and Variables

The data on directors come from the Institutional Shareholder Services (ISS) database (formerly RiskMetrics). This database provides information on several variables related to individual board directors, including name, age, tenure, gender, committee memberships, and independence. The database covers S&P 1500 companies from 1996 and is updated annually. We obtain CEO data from ExecuComp, financial data from Compustat, and stock price data from CRSP. We capture board–CEO trust for a sample of S&P 1500 companies between 1996 and 2017. We describe the construction of the M&A sample in Section III.

A. Measuring Board–CEO Trust

To measure board–CEO trust, we proceed in 3 steps. We first collect the family names of directors and CEOs from the ISS director database and ExecuComp, respectively. We then match family names with their countries of origin using data from Ancestry.com. Finally, we capture the level of trust between a CEO and a director using Eurobarometer survey data that contains bilateral trust scores for their countries of origin. We take the average of trust scores obtained for all CEO–director pairs in a given board for each firm-year.

To establish ancestry using family names, we follow Liu (2016), Pan et al. (2017), (2019), and Giannetti and Zhao (2019).[7] Ancestry.com provides information on passengers arriving from overseas at the port of New York between 1820 and 1957. We obtain each passenger's family name, ethnicity, and nationality. We identify a passenger's country of origin using her ethnicity or nationality. For a passenger with both ethnicity and nationality information available, we use the country associated with her ethnicity.[8]

[6]In unreported tests, we examine nonlinearity in the trust effect. A certain amount of trust in the CEO may facilitate working conditions and improve the quality of decision-making; in contrast, too much trust may lead to a lack of monitoring. We fail to find evidence of nonlinearity using our measure of generalized trust. It may be the case that a nonlinear trust effect is more evident for personalized trust than generalized trust in a board context.

[7]Ancestry is often established using family names in disciplines such as demography, geography, genetics, and epidemiology. See Mateos (2007) for a review.

[8]We group English, Scottish, and Welsh passengers under the U.K. category.

TABLE 1

Distribution of Countries of Origin Inferred from Director/CEO Family Names

Table 1 presents the distribution of countries of origin inferred from the family names of directors and CEOs using data from Ancestry.com.

Variables	Unique Director from ISS	Unique CEO from ExecuComp
Total no. of obs. (A)	39,633	7,407
No. of obs. matched with Ancestry.com (B)	38,715	7,228
B/A (in percent)	97.68	97.58
By country (in percent)		
United Kingdom	41.24	39.83
Germany	13.98	14.19
Ireland	11.68	11.94
Italy	5.55	6.83
Israel	5.29	4.77
France	2.65	2.72
Scandinavia	2.01	2.06
Netherlands	1.80	1.81
Russia	1.72	1.64
Spain	1.40	1.22
Poland	1.21	1.31
China	1.06	0.99
Sweden	1.04	1.09
Canada	0.99	1.02
Hungary	0.92	1.01
Austria	0.78	0.78
Greece	0.67	0.87
Norway	0.64	0.66
Switzerland	0.54	0.60
Other	4.83	4.67

For each family name, we track the associated countries of origin and the frequency with which each country appears in the Ancestry.com database. For example, the family name "Ferrari" appears 9,304 times, and we can identify countries of origin for 7,567 of the passengers named Ferrari, with 6,724 (88.9%) being from Italy, 251 (3.3%) from the United States (i.e., re-entering U.S. citizens), and 127 (1.7%) from the United Kingdom. The remaining 465 are from 32 other countries. We exclude re-entering U.S. citizens and passengers for whom we cannot identify a country of origin. Finally, we calculate the probability of a particular family name's being associated with a particular country of origin by using the frequency distribution of that family name on Ancestry.com. We denote this probability by $P_{\text{FAMILY\_NAME,COUNTRY}}$.

Table 1 presents the sample composition. For the 1996–2017 period, we identify 39,633 unique directors from the ISS database. We can match 97.7% of them with family names on Ancestry.com. The United Kingdom, Germany, and Ireland contribute the most, at 41.2%, 14.0%, and 11.7%, respectively. Similarly, we can match 97.6% of the 7,407 unique CEOs in ExecuComp over the 1996–2017 period with family names on Ancestry.com. Again, the United Kingdom, Germany, and Ireland contribute the most, at 39.8%, 14.2%, and 11.9%, respectively.

After establishing the ancestry of directors and CEOs, we capture the level of trust between any two individuals' countries of origin using Eurobarometer bilateral trust scores (per Guiso et al. (2009)). Eurobarometer has conducted public opinion surveys in European Union (EU) member nations since 1970, with coverage increasing from 5 countries in 1970 to 16 in 1996.[9] The question on trust is as

[9]The 16 countries are: France, Belgium, the Netherlands, Germany, Italy, Luxembourg, Denmark, the United Kingdom, Ireland, Greece, Spain, Portugal, Norway, Sweden, Finland, and Austria.

follows: "I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all." Following Guiso et al. (2009), we assign a score of 1 for "no trust at all," 2 for "not very much trust," 3 for "some trust," and 4 for "a lot of trust."

Table IA1 in the Supplementary Material presents the trust scores for the country-pairs among our sample countries, which include 16 EU and 11 non-EU countries.[10] The trust scores indicate the level of trust that citizens from one country have in the citizens of other countries. Note that trust levels are not necessarily reciprocal. For example, the average score of the trust Britons have in the French is 2.32, whereas the trust the French have in Britons is 2.55.

We capture director i's level of trust in CEO j using the bilateral trust scores between the respective countries of origin, as follows:

$$\text{TRUST}_{i,j} = \sum_{\text{C1}=1}^{3} \sum_{\text{C2}=1}^{3} P_{i,\text{C1}} P_{j,\text{C2}} \text{BT}_{\text{C1,C2}}, \tag{1}$$

where C1 (C2) represents the three countries of origin most frequently associated with director i's (CEO j's) family name, $P_{i,\text{C1}}$ ($P_{j,\text{C2}}$) is the probability of country C1 (C2) being the ancestral origin of director i (CEO j), and $\text{BT}_{\text{C1,C2}}$ is the level of trust that citizens of country C1 have in those of country C2.

A family name can often be traced back to several countries. Therefore, we assume that the probability of a country's being the origin of a family name is given by the frequency with which the country is observed on Ancestry.com. We use the three most frequent countries for each family name because using all countries will likely add noise. In robustness tests, we use the country with the highest frequency on Ancestry.com (mode country) as a country of origin, and find similar results. Note that we do not have bilateral trust scores for some country-pairs because the Eurobarometer surveys do not cover all countries on Ancestry.com. Therefore, we exclude observations of passengers in Ancestry.com that come from countries not covered in the Eurobarometer survey and rescale $P_{i,\text{C1}}$ ($P_{j,\text{C2}}$), so that $\sum_{\text{C1}=1}^{3} P_{i,\text{C1}}$ $\left(\sum_{\text{C2}=1}^{3} P_{j,\text{C2}}\right)$ equals 1.

After measuring trust between all CEO–director pairs, we compute BOARD_CEO_TRUST, our main measure of board–CEO trust, for each firm-year in our sample as the average of trust scores between the firm's CEO and directors in that firm-year:

$$\text{BOARD\_CEO\_TRUST} = \sum_{i=1}^{N} \text{TRUST}_{i,\text{CEO}}/N, \tag{2}$$

where $\text{TRUST}_{i,\text{CEO}}$ is the trust score of director i in the firm's CEO, and N is the number of directors with available trust scores. Table IA2 in the Supplementary Material describes the details of constructing our measure of board–CEO trust using the example of American States Water Co. in 2006.

[10]Non-EU countries (as of 1996) are: China, Russia, Japan, Switzerland, Turkey, Bulgaria, Romania, Hungary, Poland, Slovenia, and the Czech Republic (Slovakia).

We obtain 27,186 observations for S&P 1500 firms between 1996 and 2017. Figure IA1 in the Supplementary Material presents the distribution of BOARD_CEO_TRUST. The distribution is slightly skewed to the left, with a mean and median of 2.87 and 2.90, respectively. In regression analyses, we winsorize BOARD_CEO_TRUST at the 1% and 99% levels. To ease interpretation, we standardize the measure to have zero mean and unit variance. The standardized BOARD_CEO_TRUST ranges from −3.09 to 1.71.

While our approach to measuring board–CEO trust builds on the previous literature, including Liu (2016), Pan et al. (2017), (2019), and Giannetti and Zhao (2019), we acknowledge that our measure is subject to measurement errors arising from several sources: The trust matrix compiled from the Eurobarometer surveys likely reflects true trust levels with noise; the information on the countries of origin can only be measured in probabilistic terms; the countries of origin of some directors cannot be identified because they are not on Ancestry.com; and the Eurobarometer survey does not cover some countries on Ancestry.com, and so the trust scores are missing.

We also note that constructing our trust measure depends on several assumptions. For example, parents are assumed to come from the same countries of origin. If they do not, using family names to identify cultural origin mechanically means that only 50% of cultural heritage is considered. Our trust measure assumes the generational persistence of culture-based bilateral trust, so that second- or later-generation descendants of immigrants continue to exhibit the cultural traits of their forebears.[11] It also requires board members to be able to identify the cultural origin of their CEO.[12] Deviations from any of the above assumptions will result in measurement errors. However, it is reasonable to assume these measurement errors will not show any systematic correlation with the variables we use to proxy for M&A performance. Thus, any noise associated with measuring trust should increase attenuation bias, which works against finding significant results.

B. Determinants of Board–CEO Trust

In empirical studies of boards, almost all the variables of interest are jointly endogenous. Although our trust measure is based on the ancestral backgrounds of board members, which are exogenously determined, a firm's selection of the CEO and directors is an endogenous decision. Therefore, our trust measure suffers from endogeneity. We regress BOARD_CEO_TRUST on the firm, CEO, and board characteristics to determine whether there are any correlations among them.

[11]The effects of board–CEO trust on our outcome variables are likely to be weaker over successive immigrant generations. Testing this prediction requires family trees for our sample directors and CEOs, information unavailable to us. An alternative is to use the average year of immigration for members of each country. For example, if immigrants from Italy arrived in America earlier on average than immigrants from India, then we would expect Italian-origin directors to be more "American" in their cultural attitudes than Indian-origin directors. We do not find evidence consistent with this prediction, perhaps due to coarse classifications of successive immigrant generations.

[12]Based on in-depth interviews about ethnic identity and family history, Waters (1989) examines the influence of surname on how descendants of European immigrants to the United States determine their ethnic identification. She finds that they continue to use surnames for their own and others' ethnic identifications.

As for firm characteristics, we use the following variables: firm size, the logarithm of 1 plus total sales; TOBINS_Q, total liabilities plus the market value of equity at fiscal year-end, divided by total assets; LEVERAGE, total liabilities divided by total assets; INVESTMENT, change in net property, plant, and equipment divided by total assets; STOCK_RETURN, the stock return during the fiscal year minus the CRSP value-weighted return; ln(SIGMA), the logarithm of the standard deviation of market- and industry-adjusted weekly stock returns; and EINDEX, the Entrenchment index, constructed as the number of antitakeover provisions from the six listed by Bebchuk, Cohen, and Ferrell (2009). At the CEO level, we include the following variables: CEO_DUALITY, a dummy variable that equals 1 if the CEO is also chairman of the board, and 0 otherwise; CEO_TENURE, the fiscal year-end date minus the date of CEO appointment divided by 365; and CEO_OWNERSHIP, the number of shares owned by the CEO divided by the number of shares outstanding.

Finally, with respect to board characteristics,[13] we control for the following variables that are commonly used in the literature: BOARD_INDEPENDENCE, the number of independent directors divided by board size; BOARD_SIZE, the total number of directors on the board; BOARD_COOPTION, the number of directors appointed since the CEO took office divided by board size; OUTSIDE_DIRECTOR_OWNERSHIP, the total number of shares owned by outside directors divided by the number of shares outstanding; FEMALE_DIRECTOR, the number of female directors divided by board size; and BOARD_AGE, the average age of directors.

Table 2 presents descriptive statistics for these variables. We find that 58% of the sample firms have a CEO who is chairman of the board, CEO_TENURE averages 7.6 years, and CEO_OWNERSHIP is 1.01% on average. The average board has 8.4 directors, of whom 83% are independent and 48% were appointed after the CEO took office; outside directors own 1.35% of outstanding shares; and female directors hold 12% of board seats. Directors' average age is 61.

Table 3 presents the result of regressing BOARD_CEO_TRUST on the firm, CEO, and board characteristics. In column 1, we include firm characteristics only as the independent variables, while in column 2, we use CEO and board characteristics as independent variables. In column 3, we simultaneously include all the firm, CEO, and board characteristics. Each regression in columns 1–3 controls for year and firm fixed effects. We find that none of the firm, CEO, or board characteristics is significantly related to BOARD_CEO_TRUST. This lack of correlation appears consistent with the view that BOARD_CEO_TRUST captures implicit bias, where particular qualities are unconsciously attributed to a member of a certain social group (Greenwald and Banaji (1995)). As such, it is unlikely to be systematically correlated with firm, CEO, or board characteristics. Luscri and Mohr (1998) argue that a surname's connotations may influence judgments by invoking stereotypes such as ethnicity and semantic intrusion into the judgmental process. Our board–CEO trust measure may capture such judgmental bias of directors, given that the trust measure is based on director/CEO surnames.

[13]We exclude CEOs from the construction of board characteristics.

TABLE 2

Descriptive Statistics for the Sample of S&P 1500 Firms

Table 2 presents the descriptive statistics for the sample of S&P 1500 firms over the 1996 to 2017 period. Director data come from ISS, CEO data are from ExecuComp, firm financial data are from Compustat, and stock data are from CRSP. Variables are defined in the Appendix. BOARD_CEO_TRUST and ratio variables that have financial variables as denominators are winsorized at the 1% and 99% levels.

Variables	*N*	Mean	Median	Std. Dev.
Trust				
BOARD_CEO_TRUST	27,186	2.87	2.90	0.19
BOARD_CEO_TRUST (STANDARDIZED)	27,186	0.00	0.18	1.00
CEO Characteristics				
CEO_DUALITY	27,186	0.58	1.00	0.49
CEO_TENURE	25,939	7.58	5.50	7.26
CEO_OWNERSHIP (%)	27,186	1.01	0.05	3.38
Board Characteristics				
BOARD_INDEPENDENCE	27,186	0.83	0.86	0.18
BOARD_SIZE	27,186	8.42	8.00	2.67
BOARD_COOPTION	26,413	0.48	0.44	0.37
OUTSIDE_DIRECTOR_OWNERSHIP (%)	25,070	1.35	0.34	4.29
FEMALE_DIRECTOR	27,179	0.12	0.11	0.11
BOARD_AGE	27,185	61.39	61.56	4.39
Firm Characteristics				
ln(SALES)	27,181	7.51	7.39	1.52
STOCK_RETURN	27,178	0.03	−0.01	0.45
ln(SIGMA)	27,178	−3.38	−3.39	0.55
TOBINS_Q	27,178	1.84	1.46	1.12
INVESTMENT	26,275	0.01	0.00	0.05
LEVERAGE	27,115	0.57	0.58	0.22
EINDEX	25,909	3.33	4.00	1.40
Headquarters Region Characteristics				
%ENGLISH	26,207	0.08	0.08	0.03
%GERMAN	26,207	0.15	0.12	0.09
%IRISH	26,207	0.12	0.12	0.04
%ITALIAN	26,207	0.07	0.05	0.05
TRUST_LOCAL	26,207	2.68	2.68	0.03

In column 4 of Table 3, we include all the firm, CEO, and board characteristics and year and industry (2-digit SIC) fixed effects, but we do not control for firm fixed effects. The coefficient estimates for CEO_TENURE, CEO_OWNERSHIP, BOARD_SIZE, and FEMALE_DIRECTOR become statistically significant. The adjusted R^2 drops significantly, from over 67.5% in columns 1–3, to 5.8%, suggesting that firm fixed effects explain a substantial proportion of the variations in BOARD_CEO_TRUST.

In columns 5–9 of Table 3, we investigate the explanatory power of residents' ethnic background distributions, and the human capital market segmentation in a firm's headquarters regions on BOARD_CEO_TRUST. In column 5, we include the percentage of residents with English (%ENGLISH), German (%GERMAN), Irish (%IRISH), and Italian (%ITALIAN) ancestral backgrounds in a firm's headquarters county and nearby counties within a 100-km radius as independent variables. The data for the distribution of residents with foreign ancestral backgrounds at the county level come from the American Community Survey conducted by the U.S. Census Bureau. This annual survey was first conducted in 2005. For earlier years, we use 2005 survey data. We select these four ancestral backgrounds because they are most common in our director/CEO sample, as well as in most U.S. counties. In our sample firms' headquarter regions, we find that, on average, 8%, 15%, 12%, and 7% of residents are of English, German, Irish, and Italian backgrounds,

TABLE 3

Determinants of Board–CEO Trust

Table 3 presents regression results regarding the determinants of board–CEO trust. The dependent variable is BOARD_CEO_TRUST. Variables are defined in the Appendix. Year fixed effects are included. Standard errors are adjusted for clustering at the firm level, and *t*-statistics are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	Firm FE			Industry FE			Industry FE + State FE	Industry FE + County FE	Industry FE + City FE
	1	2	3	4	5	6	7	8	9
ln(SALES)	0.003		−0.001	0.010	0.016	0.016	0.013	0.018	0.025
	(0.092)		(−0.024)	(0.590)	(0.894)	(0.906)	(0.735)	(1.029)	(1.360)
TOBINS_Q	0.012		0.010	0.005	0.008	0.004	0.013	0.017	0.023
	(0.912)		(0.750)	(0.323)	(0.443)	(0.263)	(0.813)	(1.043)	(1.343)
LEVERAGE	−0.013		−0.022	−0.053	−0.028	−0.017	−0.036	−0.005	−0.050
	(−0.142)		(−0.237)	(−0.536)	(−0.282)	(−0.174)	(−0.363)	(−0.052)	(−0.512)
INVESTMENT	0.045		0.031	0.027	−0.059	−0.060	−0.125	−0.199	−0.238
	(0.347)		(0.234)	(0.138)	(−0.296)	(−0.303)	(−0.640)	(−1.048)	(−1.329)
STOCK_RETURN	−0.010		−0.012	−0.025	−0.027	−0.025	−0.028	−0.030*	−0.029*
	(−0.863)		(−0.996)	(−1.379)	(−1.442)	(−1.364)	(−1.542)	(−1.686)	(−1.660)
ln(SIGMA)	−0.024		−0.014	−0.052	−0.052	−0.053	−0.049	−0.074**	−0.070**
	(−0.987)		(−0.563)	(−1.391)	(−1.392)	(−1.396)	(−1.370)	(−2.182)	(−2.185)
EINDEX	−0.006		−0.008	−0.006	−0.005	−0.006	−0.014	−0.017	−0.008
	(−0.435)		(−0.580)	(−0.376)	(−0.337)	(−0.362)	(−0.881)	(−1.066)	(−0.517)
CEO_DUALITY		0.002	0.010	−0.018	−0.007	−0.005	−0.016	−0.014	−0.050
		(0.063)	(0.297)	(−0.464)	(−0.168)	(−0.137)	(−0.421)	(−0.356)	(−1.330)
CEO_TENURE		0.001	0.001	0.007**	0.008**	0.008**	0.007**	0.006	0.006*
		(0.362)	(0.371)	(2.196)	(2.269)	(2.158)	(2.228)	(1.624)	(1.674)
CEO_OWNERSHIP		−0.002	−0.003	−0.011**	−0.011**	−0.010**	−0.011**	−0.011**	−0.009**
		(−0.730)	(−0.983)	(−2.461)	(−2.312)	(−2.221)	(−2.386)	(−2.513)	(−2.074)
BOARD_ INDEPENDENCE		0.037	0.079	0.098	0.108	0.092	0.080	0.115	0.053
		(0.434)	(0.889)	(0.865)	(0.929)	(0.787)	(0.724)	(1.022)	(0.497)
BOARD_SIZE		−0.001	−0.001	0.018**	0.018**	0.019**	0.016*	0.009	0.005
		(−0.169)	(−0.105)	(2.089)	(2.125)	(2.202)	(1.862)	(1.097)	(0.631)
BOARD_COOPTION		0.057	0.041	−0.041	−0.060	−0.054	−0.039	−0.038	−0.001
		(0.886)	(0.602)	(−0.633)	(−0.909)	(−0.811)	(−0.604)	(−0.580)	(−0.022)
OUTSIDE_DIRECTOR_ OWNERSHIP		0.001	0.001	0.001	0.003	0.003	0.002	0.002	0.003
		(0.391)	(0.275)	(0.461)	(0.805)	(0.835)	(0.731)	(0.470)	(0.948)
FEMALE_DIRECTOR		0.002	−0.021	−0.403**	−0.420**	−0.455**	−0.293*	−0.398**	−0.546***
		(0.017)	(−0.142)	(−2.227)	(−2.274)	(−2.491)	(−1.646)	(−2.202)	(−3.122)
BOARD_AGE		0.002	0.003	−0.003	−0.002	−0.001	−0.001	−0.001	0.003
		(0.465)	(0.574)	(−0.562)	(−0.295)	(−0.218)	(−0.123)	(−0.179)	(0.607)
%ENGLISH					1.249				
					(1.219)				
%GERMAN					0.318				
					(1.131)				
%IRISH					0.131				
					(0.120)				
%ITALIAN					−1.947**				
					(−2.376)				
TRUST_LOCAL						3.263***			
						(5.209)			
Adj. R^2	0.675	0.692	0.685	0.058	0.068	0.068	0.101	0.174	0.289
No. of obs.	19,874	19,977	18,567	18,840	18,142	18,142	18,597	18,585	18,552
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

respectively. The coefficient estimates for %ENGLISH and %GERMAN are positive although insignificant, while that for %ITALIAN is significantly negative. This suggests that firms located in counties with more English or German (Italian) descendants exhibit higher (lower) board–CEO trust. This is consistent with observations of the bilateral-trust matrix that United Kingdom and German citizens are more trusting and trustworthy, but Italians are less so. The coefficient estimate for %IRISH is close to 0 and statistically insignificant.

In column 6 of Table 3, we include a county-level trust measure constructed based on the bilateral trust matrix and ancestral background distribution of residents at the county level. Specifically, we calculate the distribution of residents with foreign ancestral backgrounds for each firm. We define residents as those living in the firm's headquarters county and counties within a 100-km radius. We then measure the trustingness and trustworthiness of residents, which we term TRUSTINGNESS_LOCAL and TRUSTWORTHINESS_LOCAL, and compute as below.

$$\text{TRUSTINGNESS\_LOCAL} = \sum_{i=1} P_i \text{TRUSTINGNESS}_i, \tag{3}$$

$$\text{TRUSTWORTHINESS\_LOCAL} = \sum_{i=1} P_i \text{TRUSTWORTHINESS}_i, \tag{4}$$

where i indexes ancestry countries; P_i is the proportion of residents in the firm's headquarters county and counties within a 100-km radius with ancestral country background i; TRUSTINGNESS_i is the column-average trust of the ancestry country associated with country i from the bilateral trust matrix (Table IA1 in the Supplementary Material); and TRUSTWORTHINESS_i is the row-average trust of the ancestry country associated with country i from the bilateral trust matrix. We exclude ancestral countries not covered in the Eurobarometer survey and rescale P_i so that $\sum_{i=1} P_i = 1$. We then use the average of TRUSTINGNESS_LOCAL and TRUSTWORTHINESS_LOCAL to measure local trust, TRUST_LOCAL.

$$\text{TRUST\_LOCAL} = (\text{TRUSTINGNESS\_LOCAL} + \text{TRUSTWORTHINESS\_LOCAL})/2. \tag{5}$$

The coefficient estimate on TRUST_LOCAL is positive and significant, indicating that firms located in counties with higher trust among residents have higher board–CEO trust.

The results in columns 5 and 6 of Table 3 show that residents' ancestral background distributions near a firm's headquarters affect board–CEO trust. This is consistent with the view that directors and CEOs are more likely to be chosen from local regions (Knyazeva, Knyazeva, and Masulis (2013), Dass, Kini, Nanda, Onal, and Wang (2014), Yonker (2017), and Kang, Kim, and Lu (2018)). The adjusted R^2 increases from 5.8% in column 4 to 6.7% and 6.8% in columns 5 and 6, respectively, but is much smaller than those in columns 1–3 where we control for firm fixed effects.

In columns 7–9 of Table 3, we control for firms' headquarters state, county, and city fixed effects, and find that the adjusted R^2s increase to 10.1%, 17.4%, and 28.9%, respectively.[14] This suggests that a firm's headquarters location is a strong determinant of board–CEO trust, but cannot fully explain the variations captured by firm fixed effects.

[14]In an unreported test, we replace the state fixed effects with state-level "CEO hiring home bias" score from Yonker (2017). The adjusted R^2 is only 5.8%.

III. Board–CEO Trust and M&A Performance

High board–CEO trust can benefit firm performance if it enhances the board's advising, or is an inexpensive substitute for expensive board monitoring. On the other hand, high board–CEO trust can lead to poor decision-making if it induces less effective monitoring or "groupthink." In this section, we distinguish between these two views by examining the relation between board–CEO trust and M&A performance.

A. M&A Sample Construction

To construct the M&A sample, we begin with all U.S. domestic M&A deals announced between 1996 and 2017 with known deal values in the Securities Data Company (SDC) database. We require that acquirers be listed, and have board, CEO, financial, and stock data available. We further require that acquiring companies not be involved in any other acquisitions during the year before the deal announcement. Lastly, we exclude deals with transaction values less than 1% of the acquirer's market capitalization. Our final sample comprises 2,865 deals. Table 4 presents descriptive statistics for the variables used in the M&A sample.

We standardize our measure of trust to have a mean of 0 and a standard deviation of 1. All variables are defined in the Appendix. Our main dependent variable is the CAR of the acquirer during the 3 days around the deal announcement, CAR $(-1, +1)$. We compute CAR using the market model estimated with 200 trading days of return data that end 10 days before the announcement date. We find that acquirers experience an economically small positive return: 0.39% on average.

We control for several variables that are known to affect acquirer announcement returns. PUBLIC_TARGET is an indicator that equals 1 if the target firm is publicly listed before the acquisition, and 0 otherwise. In our sample, 27% of targets are public. ln(DEAL_VALUE) is the logarithm of transaction value in millions of U.S. dollars (USD). ln(MV) is the logarithm of acquiring company's market capitalization 6 trading days before the deal announcement in millions of USD. We use the logarithms of deal value and acquirer market value in the regression analyses to mitigate the skewed distributions of these variables.

ROA is acquirer's pre-tax income divided by total assets 1 year before the deal announcement. The sample mean (median) ROA is 7.5% (6.9%). TOBINS_Q is the acquirer's market value of equity plus the book value of total liabilities divided by the book value of its total assets at the end of the fiscal year before the deal announcement. The mean (median) TOBINS_Q in our sample is 1.90 (1.56). We also include the percentage of consideration paid in cash (%CASH_PAYMENT); the percentage of consideration paid in stock (%STOCK_PAYMENT); a dummy variable that equals 1 if the acquirer and target have different 2-digit SIC codes, and 0 otherwise (CROSS_INDUSTRY); a dummy variable that equals 1 for friendly deals, and 0 otherwise (FRIENDLY_DEAL); and a dummy variable that equals 1 if there are competing bidders, and 0 otherwise (COMPETING_DEAL). On average, acquirers pay 51% in cash and 16% in stock. In 39% of deals, the acquirer and target have different 2-digit SIC codes. Finally, only 25 deals (1%) are hostile, and 71 (2%) involve competing bidders.

TABLE 4

Descriptive Statistics for the M&A Sample

Table 4 presents the descriptive statistics for the M&A sample, which includes 2,865 U.S. domestic M&A deals announced during the 1996 to 2017 period. Director data come from ISS, CEO data are from ExecuComp, firm financial data are from Compustat, and stock data are from CRSP. Mergers and acquisitions data come from SDC. Variables are defined in the Appendix. BOARD_CEO_TRUST, WITHIN_BOARD_TRUST, RESIDUAL_BOARD_CEO_TRUST, CEO_TRUSTWORTHINESS, BOARD_TRUSTINGNESS, SAME_ANCESTRY, CULTURAL_DISTANCE, and ratios that have financial variables as denominators are winsorized at the 1% and 99% levels.

Variables	*N*	Mean	Median	Std. Dev.
M&A Outcome Variables				
CAR (%)	2,865	0.39	0.20	6.15
BHAR (−1, COMPLETION) (MARKET_ADJUSTED) (%)	2,721	1.17	0.26	15.17
BHAR (−1, COMPLETION) (INDUSTRY_ADJUSTED) (%)	2,718	−0.58	−0.32	13.95
BHAR (−1, COMPLETION) (MATCHED_FIRM_ADJUSTED) (%)	2,636	1.25	0.72	23.11
BHAR (−1, +252) (MARKET_ADJUSTED) (%)	2,454	1.01	−1.35	39.67
BHAR (−1, +252) (INDUSTRY_ADJUSTED) (%)	2,451	−7.18	−7.80	37.75
BHAR (−1, +252) (MATCHED_FIRM_ADJUSTED) (%)	2,326	0.67	−0.00	56.69
EBIT/ASSETS (YEAR +3) (%)	2,248	−1.25	−0.60	5.97
EBIT/ASSETS (YEAR +2) (%)	2,463	−1.05	−0.37	5.48
NET_INCOME/ASSETS (YEAR +3) (%)	2,255	−1.66	−0.36	8.62
NET_INCOME/ASSETS (YEAR +2) (%)	2,470	−1.42	−0.30	7.89
EBITDA/ASSETS (YEAR +3) (%)	2,150	−1.19	−0.52	5.95
EBITDA/ASSETS (YEAR +2) (%)	2,358	−0.98	−0.32	5.59
DEAL_WITHDRAWL	2,865	0.05	0.00	0.21
Trust Variables				
BOARD_CEO_TRUST	2,865	0.00	0.20	1.00
BOARD_CEO_TRUST (INDEPENDENT)	2,847	0.00	0.20	1.00
WITHIN_BOARD_TRUST	2,860	0.00	0.06	1.00
WITHIN_BOARD_TRUST (INDEPENDENT)	2,843	0.00	0.04	1.00
RESIDUAL_BOARD_CEO_TRUST	2,865	0.00	−0.13	1.00
CEO_TRUSTWORTHINESS	2,865	0.00	0.33	1.00
BOARD_TRUSTINGNESS	2,865	0.00	0.02	1.00
SAME_ANCESTRY	2,865	0.00	−0.01	1.00
Control Variables				
CULTURAL_DISTANCE	2,865	1.87	1.61	1.16
CULTURAL_DISTANCE (INDEPENDENT)	2,847	1.85	1.59	1.19
PUBLIC_TARGET	2,865	0.27	0.00	0.44
ln(DEAL_VALUE)	2,865	5.36	5.29	1.72
ln(MV)	2,865	7.87	7.69	1.42
ROA (%)	2,865	7.53	6.93	8.34
TOBINS_Q	2,865	1.90	1.56	1.10
%CASH_PAYMENT	2,865	51.32	57.14	45.71
%STOCK_PAYMENT	2,865	16.44	0.00	32.79
CROSS_INDUSTRY	2,865	0.39	0.00	0.49
FRIENDLY_DEAL	2,865	0.99	1.00	0.09
COMPETING_DEAL	2,865	0.02	0.00	0.16

B. Board–CEO Trust and Acquirer Announcement Returns

In Table 5, we examine the association between board–CEO trust and M&A performance. In column 1, we regress CAR on BOARD_CEO_TRUST. The null hypothesis is that board–CEO trust does not affect the acquirer's announcement return. We control for acquirer characteristics such as size, ROA, and TOBINS_Q, and deal characteristics such as size, payment method, and deal type dummies. We also include announcement year and acquirer industry (2-digit SIC) fixed effects. We cluster standard errors by acquirer because a given acquirer often makes several acquisitions.[15] We exclude withdrawn deals.

[15]One concern with our trust measure is that only about a dozen countries have meaningful representation in the corporate leader sample. In unreported tests, we cluster standard errors by both acquirer and a CEO's ancestry, assuming that CEO ancestry is the CEO's associated country of origin with the highest frequency on Ancestry.com. We find similar results.

TABLE 5

Effect of Trust on Acquirer Announcement Returns

Table 5 presents the results for the effect of board–CEO trust on acquirer announcement returns. We exclude withdrawn deals. The dependent variable is the acquirer's 3-day (−1, +1) cumulative abnormal return (%) around deal announcements. Variables are defined in the Appendix. Announcement year and acquirer industry (2-digit SIC) fixed effects are included. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Variables	1	2	3	4	5
BOARD_CEO_TRUST	−0.598***				
	(−3.648)				
BOARD_CEO_TRUST (INDEPENDENT)		−0.585***			
		(−3.578)			
WITHIN_BOARD_TRUST			−0.139		
			(−1.080)		
WITHIN_BOARD_TRUST (INDEPENDENT)				−0.151	
				(−1.173)	
RESIDUAL_BOARD_CEO_TRUST					−0.250**
					(−2.001)
CEO_TRUSTWORTHINESS					−0.465***
					(−3.185)
BOARD_TRUSTINGNESS					−0.050
					(−0.410)
SAME_ANCESTRY					−0.215
					(−1.061)
CULTURAL_DISTANCE	−0.381**		−0.047		−0.305
	(−2.578)		(−0.391)		(−1.547)
CULTURAL_DISTANCE (INDEPENDENT)		−0.379***		−0.053	
		(−2.643)		(−0.458)	
PUBLIC_TARGET	−1.441***	−1.427***	−1.428***	−1.400***	−1.423***
	(−3.904)	(−3.883)	(−3.864)	(−3.804)	(−3.871)
ln(DEAL_VALUE)	0.257**	0.217*	0.246*	0.217*	0.258**
	(1.971)	(1.668)	(1.877)	(1.662)	(1.983)
ln(MV)	−0.605***	−0.566***	−0.580***	−0.549***	−0.613***
	(−4.218)	(−3.969)	(−4.042)	(−3.843)	(−4.274)
ROA	0.033*	0.036*	0.033*	0.034*	0.034*
	(1.678)	(1.817)	(1.655)	(1.709)	(1.694)
TOBINS_Q	−0.173	−0.182	−0.168	−0.182	−0.175
	(−1.038)	(−1.088)	(−0.995)	(−1.078)	(−1.049)
%CASH_PAYMENT	0.008***	0.008***	0.008***	0.008***	0.009***
	(2.972)	(2.876)	(2.959)	(2.854)	(3.028)
%STOCK_PAYMENT	−0.018***	−0.016***	−0.018***	−0.017***	−0.018***
	(−3.149)	(−2.821)	(−3.112)	(−2.884)	(−3.133)
CROSS_INDUSTRY	−0.488**	−0.514**	−0.464*	−0.499**	−0.468*
	(−1.973)	(−2.070)	(−1.853)	(−1.986)	(−1.890)
FRIENDLY_DEAL	−1.114	−1.112	−1.079	−1.030	−1.156
	(−0.541)	(−0.551)	(−0.509)	(−0.494)	(−0.561)
COMPETING_DEAL	−0.442	−0.444	−0.409	−0.403	−0.489
	(−0.420)	(−0.421)	(−0.382)	(−0.377)	(−0.470)
Adj. R^2	0.073	0.070	0.068	0.066	0.073
No. of obs.	2,727	2,710	2,722	2,706	2,727
Year FE	Yes	Yes	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes	Yes	Yes

In addition to the traditional acquirer and deal characteristics, we control for cultural distance between the acquirer's CEO and board of directors. We follow Kogut and Singh (1988) in measuring cultural distance as follows:

$$\text{CULTURAL\_DISTANCE}_{i,j} = \sqrt{\sum_{k=1}^{4} \left(I_{k,i} - I_{k,j}\right)^2 / V_k}, \tag{6}$$

where $I_{k,i}$ ($I_{k,j}$) is director i's (CEO j's) score for cultural dimension k. The cultural dimensions include individualism–collectivism, masculinity–femininity, power distance, and uncertainty avoidance (see Hofstede (1984)). We compute a director's cultural score on dimension k as the weighted average score across countries. The weights are the frequency distribution of the country of origin of the director's family name.[16] V_k is the in-sample variance of $I_{k,i} - I_{k,j}$, which scales the difference for each dimension so that it carries the same weight in the index construction. CULTURAL_DISTANCE denotes the average cultural distance between the CEO and each director. The mean and median of CULTURAL_DISTANCE for our sample deals is 1.87 and 1.61, respectively, with a standard deviation of 1.16.

The coefficient estimate on BOARD_CEO_TRUST in column 1 of Table 5 is negative and statistically significant at the 1% level. The magnitude of the coefficient estimate is large: A 1-standard-deviation increase in BOARD_CEO_TRUST is associated with a 0.60% decline in acquirer announcement returns. Given that the mean CAR is 0.39%, the decrease in returns is larger than the average announcement return. In unreported analyses, we proxy for board–CEO trust using a two-way directional measure (the average of CEO trust in the board and board trust in the CEO). We find that this measure is highly correlated with our primary measure of board trust in the CEO. The results using the two-way measure are the same as in column 1.

Turning to CULTURAL_DISTANCE, we find that the estimate is significantly negative, indicating that more culturally distant CEOs and boards make poorer acquisition decisions. This result is consistent with Ahern et al. (2015), who find lower combined announcement returns for culturally distant acquirers and targets. It also aligns with Lim, Makhija, and Shenkar (2016), who find a negative relation between cultural distance and target premiums when U.S. firms bid for foreign targets. Not surprisingly, BOARD_CEO_TRUST and CULTURAL_DISTANCE are negatively correlated, as cultural similarity facilitates trust (Guiso et al. (2009)). We note that our trust measure does not necessarily capture cultural differences between the CEO and the board. Rather, it reflects the extent to which the board trusts the CEO. If our trust measure is a proxy for cultural differences, which are negatively associated with announcement returns, then high-trust boards should be associated with nonnegative market reactions. This is because a high level of trust is associated with lower cultural differences. Instead, we find strongly negative announcement returns for high-trust boards, indicating that the trust effect we document is distinct from the effect of cultural differences.

In column 2 of Table 5, we repeat the analysis in column 1, after calculating BOARD_CEO_TRUST using independent directors only. We find that the coefficient estimate on BOARD_CEO_TRUST remains significantly negative. The magnitude and significance of the estimate are notably similar to those obtained using all directors in computing BOARD_CEO_TRUST. This finding is not surprising, given that the majority of boards of U.S. firms consist of independent directors.

[16]We use the 3 countries of origin most frequently associated with a director's family name to be consistent with BOARD_CEO_TRUST.

In column 3 of Table 5, we use WITHIN_BOARD_TRUST as the key independent variable and repeat the test in column 1. We compute WITHIN_BOARD_TRUST as the average level of trust between all pairs of directors (excluding the CEO). The correlation between BOARD_CEO_TRUST and WITHIN_BOARD_TRUST in our sample is 0.33. The coefficient estimate on WITHIN_BOARD_TRUST is negative but statistically insignificant, suggesting that the results in columns 1 and 2 are not driven by the overall level of trust among board members. In column 4, we calculate WITHIN_BOARD_TRUST focusing on independent directors only, and find similar results.

Guiso et al. (2009) note that there are country-specific components in the trust scores among countries, as well as "a 'home-country bias' that managers trust their fellow countrymen more than what managers from other countries rank them" (Guiso et al. ((2009), p. 1096)). This raises a concern that our results using BOARD_CEO_TRUST constructed based on raw bilateral trust scores may be driven by a general "trust" characteristic of CEOs or directors, or a "home-country bias" effect rather than the bilateral trust between CEOs and directors of different ancestral countries. To explore this issue, we decompose BOARD_CEO_TRUST into four components: i) CEO_TRUSTWORTHINESS, which captures the information for each row in the bilateral trust matrix (how trustworthy a CEO is in general); ii) BOARD_TRUSTINGNESS, which captures the information for each column in the bilateral trust matrix (how trusting a director is in general); iii) SAME_ANCESTRY, which captures the information in the diagonal of the bilateral trust matrix; and iv) RESIDUAL_BOARD_CEO_TRUST, which captures the off-diagonal variations in the bilateral trust matrix.

To construct CEO_TRUSTWORTHINESS and BOARD_TRUSTINGNESS, we first calculate the simple average score of each row (column) of the trust matrix (excluding the diagonal term) in Table IA1 in the Supplementary Material. We then compute CEO_TRUSTWORTHINESS as the frequency-weighted average of row-average scores based on the ancestral background associated with the CEO's last name, which captures the degree to which the CEO is generally viewed as trustworthy. We compute the trustingness of a director as the frequency-weighted average of column-average scores based on the director's ancestral background associated with her last name, which captures how trusting the director is in general. BOARD_TRUSTINGNESS is the average trustingness of all directors. To construct SAME_ANCESTRY, we first calculate $\text{SAME\_ANCESTRY}_{i,j}$ (the trust of director i in director j) as

$$\text{SAME\_ANCESTRY}_{i,j} = \sum_{C1=1}^{3} \sum_{C2=1}^{3} P_{i,C1} P_{j,C2} \text{BT\_DIAGONAL}_{C1,C2}, \tag{7}$$

where C1,C2, $P_{i,C1}$, and $P_{j,C2}$ are as previously defined in Section II.A. $\text{BT\_DIAGONAL}_{C1,C2}$ equals $\text{BT}_{C1,C2}$ when C1 equals C2, and 0 otherwise. SAME_ANCESTRY is the average of $\text{SAME\_ANCESTRY}_{i,CEO}$ for all directors. We construct RESIDUAL_BOARD_CEO_TRUST similarly to BOARD_CEO_TRUST, but use residual bilateral–trust scores (BT_RESIDUAL) from the trust matrix in Table IA1 in the Supplementary Material. Specifically, we obtain

$BT\_RESIDUAL_{C1,C2}$ by regressing $BT_{C1,C2}$ on country fixed effects for both C1 and C2 and a dummy variable SAME_COUNTRY:

$$BT_{C1,C2} = \kappa_{C1} + \lambda_{C2} + \gamma \times \text{SAME\_COUNTRY} + \varepsilon_{C1,C2}, \tag{8}$$

where κ_{C1} is a country-of-origin fixed effect, and λ_{C2} is a country-of-destination fixed effect. SAME_COUNTRY is a dummy variable that equals 1 if C1 equals C2, and 0 otherwise. γ captures the incremental trust associated with the "home-country bias." $BT\_RESIDUAL_{C1,C2}$ equals the residual $\varepsilon_{C1,C2}$ from the regression. CEO_TRUSTWORTHINESS, BOARD_TRUSTINGNESS, SAME_ANCESTRY, and RESIDUAL_BOARD_CEO_TRUST are standardized to have zero mean and unit variance.

Column 5 of Table 5 presents the results of replacing BOARD_CEO_TRUST with its four decomposed components: CEO_TRUSTWORTHINESS, BOARD_TRUSTINGNESS, SAME_ANCESTRY, and RESIDUAL_BOARD_CEO_TRUST. The coefficient estimates for BOARD_TRUSTINGNESS and SAME_ANCESTRY are negative but statistically insignificant, while those for RESIDUAL_BOARD_CEO_TRUST and CEO_TRUSTWORTHINESS are significantly negative. The results indicate that the negative association between board–CEO trust and M&A performance is mainly explained by more trustworthy CEOs making poor M&A decisions. But RESIDUAL_BOARD_CEO_TRUST, constructed based on residual trust scores net of country fixed effects and the same-country effect, negatively affects M&A outcomes. The result in column 5 suggests that the negative association between board–CEO trust and M&A performance is not likely to be driven by certain ancestral country fixed effects or the "home-country bias" of the CEO or directors.

C. Robustness Tests

We conduct various robustness tests of the association between acquirer announcement returns and board–CEO trust and present the results in Table IA3 in the Supplementary Material. First, we use alternative methods to identify the country of origin of a family name. For instance, we use the mode country, i.e., the country with the highest frequency on Ancestry.com (column 1). We also use Giannetti and Zhao's (2019) approach and assign equal weights to the top three countries with the highest frequencies for the family name (column 2). Second, note that the Eurobarometer survey is distributed to interviewees from 16 EU countries, but some surveys are also directed at citizens of non-EU countries. To examine whether the asymmetry between the number of trustor countries and the number of trustee countries leads to any bias in our results, we focus on bilateral trust among the 16 EU countries (column 3). Third, to evaluate whether our results are driven by U.K. CEO/directors (the U.K. accounts for around 40% of the ancestral backgrounds of CEOs and directors), we compute the trust measure by treating CEO/directors with U.K.-originated last names as missing, and repeat our tests (column 4). Fourth, we add the interaction between BOARD_CEO_TRUST and the POST_SOX dummy to the regression to explore the effect of board–CEO trust before and after adopting the Sarbanes–Oxley Act (SOX) in 2002 (column 5). Fifth, we use announcement returns based on alternative event windows of 7-day announcement

returns, CAR (−3, +3), and 11-day announcement returns, CAR (−5, +5) (columns 6 and 7). Finally, we exclude deals made by acquirers from the financial (SIC 6000–6999) and utility (SIC 4900–4999) industries (column 8). We find that the coefficient estimates on BOARD_CEO_TRUST remain significantly negative in these robustness tests.

We also include additional controls to alleviate concerns about an omitted variable bias. The results are in Table IA4 in the Supplementary Material. We first control for proxies of the acquirer's governance strength, including institutional ownership (INSTITUTIONAL_OWNERSHIP) and the Entrenchment Index (EINDEX) in columns 1 and 2, respectively. In columns 3 and 4, we control for two CEO compensation variables to capture CEO pay-performance sensitivity (ln(CEO_DELTA)) (Core and Guay (2002)) and CEO pay slice (CEO_PAY_SLICE) (Bebchuk, Cremers, and Peyer (2011)), respectively. In column 5, we control for a set of board and CEO characteristics, including board meeting attendance (ATTENDANCE_PROBLEM), board co-option (BOARD_COOPTION), CEO only insider dummy (CEO_ONLY_INSIDER), and CEO duality dummy (CEO_DUALITY) (Adams, Almeida, and Ferreira (2005), Adams and Ferreira (2008), (2009), and Coles, Daniel, and Naveen (2014)). In columns 6 and 7, we control for two dummy variables, for family firms (FAMILY_FIRM) and founder CEOs (CEO_FOUNDER), respectively. In columns 8 and 9, we control for two CEO characteristics, CEO overconfidence (OVERCONFIDENT_CEO) (Malmendier and Tate (2015)), and CEO general ability (CEO_GENERAL_ABILITY) (Custódio, Ferreira, and Matos (2013)). In column 10, we control for additional cultural variables that may affect board–CEO trust: RELIGIOUS_SIMILARITY, LANGUAGE_SIMILARITY, ANCESTRAL_DIVERSITY, and ln(GEOGRAPHICAL_DISTANCE). We find the coefficient estimates on BOARD_CEO_TRUST remain significant after controlling for these additional variables.

D. Board–CEO Trust and Acquirers' Long-Term Stock Return

While M&A announcement return has been widely used to measure M&A performance, recent research (e.g., Malmendier, Moretti, and Peters (2018), Ben-David, Bhattacharya, and Jacobsen (2022)) suggests that M&A announcement returns may not fully capture M&A performance. In this section, we investigate the effect of board–CEO trust on acquirers' long-term stock return performance to see if the long-term performance following the merger is consistent with the short-term announcement returns. We use BHAR to measure acquirers' long-term stock return performance.

We use two different windows for the estimation of BHAR. BHAR (−1, COMPLETION) is BHAR from 1 day before the deal announcement to the completion date. Mean (median) deal duration is 77 (46) days. BHAR (−1, +252) is BHAR from 1 day before the deal announcement to 1 year (252 trading days) afterward. We use three adjustment methods to estimate BHAR. The first uses the market model with return data for 200 trading days, ending 10 days before the announcement date. The second calculates BHAR as the buy-and-hold stock return net of the value-weighted average return of stocks in the same industry (2-digit SIC) during the same period. The third follows Barber and Lyon (1997), and calculates

TABLE 6

Effect of Acquirer Board–CEO Trust on Alternative M&A Performance Measures

Table 6 presents the results for the effect of acquirer board–CEO trust on alternative M&A performance measures. We exclude withdrawn deals. In Panel A, we use acquirer long-term stock return to measure M&A performance. The dependent variable is the acquirer's buy-and-hold abnormal return (BHAR) from 1 day prior to the deal announcement to the deal completion date in columns 1–3, and BHAR from 1 day prior to the deal announcement to 1 year (252 trading days) after the deal announcement in columns 4–6. In columns 1 and 4, BHAR is the acquirer's buy-and-hold stock return adjusted using the market model. In columns 2 and 5, BHAR is the acquirer's buy-and-hold stock return net of the value-weighted average return of stocks in the same industry (2-digit SIC) during the same period. In columns 3 and 6, BHAR is the acquirer's buy-and-hold stock return minus that of a matched firm during the same period. We follow Barber and Lyon (1997) and match acquirer by firm size and market-to-book ratio. In Panel B, we use acquirer post-deal operating performance to measure M&A performance. The dependent variable is the acquirer's operating performance 2 or 3 years after deal completion minus their operating performance in the deal completion year. Operating performance is measured by EBIT/ASSETS in columns 1 and 2, NET_INCOME/ASSETS in columns 3 and 4, and EBITDA/ASSETS in columns 5 and 6. Variables are defined in the Appendix. In all regressions, control variables are included but their coefficient estimates are not reported for brevity. Announcement year and acquirer industry (2-digit SIC) fixed effects are included. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Variables	1	2	3	4	5	6
Panel A. Dependent Variable = Acquirer Long-Term Stock Return						
	BHAR (−1, COMPLETION) (%)			BHAR (−1, +252) (%)		
	MARKET_ADJUSTED	INDUSTRY_ADJUSTED	MATCHED_FIRM_ADJUSTED	MARKET_ADJUSTED	INDUSTRY_ADJUSTED	MATCHED_FIRM_ADJUSTED
BOARD_CEO_TRUST	−1.340***	−1.210***	−1.903***	−2.181**	−2.205**	−3.936**
	(−3.362)	(−3.308)	(−3.062)	(−1.996)	(−1.988)	(−2.352)
Adj. R^2	0.034	0.035	0.009	0.049	0.051	0.009
No. of obs.	2,718	2,715	2,633	2,451	2,448	2,323
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Panel B. Dependent Variable = Acquirer Post-Deal Operating Performance						
	EBIT/ASSETS (%)		NET_INCOME/ASSETS (%)		EBITDA/ASSETS (%)	
	YEAR +2	YEAR +3	YEAR +2	YEAR +3	YEAR +2	YEAR +3
BOARD_CEO_TRUST	−0.272*	−0.491***	−0.021	−0.439*	−0.261	−0.575***
	(−1.730)	(−2.651)	(−0.084)	(−1.660)	(−1.543)	(−3.024)
Adj. R^2	0.087	0.104	0.051	0.078	0.079	0.095
No. of obs.	2,461	2,246	2,468	2,253	2,356	2,148
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes	Yes	Yes	Yes

BHAR as the buy-and-hold stock return minus that of a firm matched by size and market-to-book ratio during the same period. Summary statistics in Table 4 show that five out of six BHAR measures have means and medians that are close to 0, while BHAR (−1, +252) (INDUSTRY_ADJUSTED) has a negative mean (−7.18%) and median (−7.80%). This indicates that acquirers underperform industry benchmarks during the first-year post-deal announcement.

In Panel A of Table 6, we use BHAR to replace CAR as the dependent variable and use the same controls in column 1 of Table 5. For brevity, we report only the coefficient on BOARD_CEO_TRUST and its statistical significance and omit those on the control variables. The coefficient estimates on BOARD_CEO_TRUST are negative and significant in all 6 columns. The negative effect of BOARD_CEO_TRUST on BHAR is also economically large: Depending on the BHAR adjustment methods, a 1-standard-deviation increase in BOARD_CEO_TRUST is associated with a 1.21% to 1.90% decrease in BHAR (−1, COMPLETION), and a 2.18% to 3.94% decrease in BHAR (−1, +252). The results are consistent with

our finding that M&A announcement returns are negatively associated with high board–CEO trust.

E. Board–CEO Trust and Acquirers' Post-Deal Operating Performance

We next test whether the negative market reaction to deal announcements by acquirers with high board–CEO trust reflects market expectations of declines in future operating performance. We repeat the analysis in column 1 of Table 5, using acquirers' post-deal operating performance as the dependent variable. We use EBIT/ASSETS, NET_INCOME/ASSETS, and EBITDA/ASSETS to measure the operating performance of the acquiring company. EBIT/ASSETS (NET_INCOME/ASSETS; EBITDA/ASSETS) is the acquirer's earnings before interest and taxes (net income; earnings before interest, taxes, depreciation, and amortization) divided by total assets. We measure the percentage change in operating performance by comparing the acquirer's operating performance 2 (or 3) years post-deal completion with operating performance in the deal completion year. Summary statistics in Table 4 indicate that the acquirer's operating performance after a merger is typically poorer. The mean changes range from −1.66% to −0.98%, depending on the measure used.

Panel B of Table 6 presents the results. For brevity, we report only the coefficient on BOARD_CEO_TRUST and its statistical significance and omit those on the control variables. The coefficient estimates on BOARD_CEO_TRUST are significantly negative in columns 1, 2, 4, and 6. The effect of board–CEO trust on operating performance is also economically significant: A 1-standard-deviation increase in BOARD_CEO_TRUST is associated with a 0.49% (0.44% and 0.58%) drop in acquirer EBIT/ASSETS (NET_INCOME/ASSETS and EBITDA/ASSETS) 3 years post-deal completion. In comparison, the average acquiring firm's EBIT/ASSETS (NET_INCOME/ASSETS and EBITDA/ASSETS) is 8.62% (4.46% and 12.39%) in the year of the deal announcement. In sum, the results in Panel B of Table 6 are consistent with the view that the negative market reaction to M&As conducted by high-trust boards reflects market expectations of a decline in an acquirer's future performance.

F. Placebo-Tests

One concern with our measure of BOARD_CEO_TRUST is that it may simply capture board composition rather than the interaction between CEO and director in which board directors' trust in the CEO matters. To address the concern, we construct PSEUDO_BOARD_CEO_TRUST using former CEOs who left office within 5 years pre-M&A announcement, and succeeding CEOs who acceded to office within 5 years post-M&A announcement, along with actual board members at the time of deal announcement. If our results are driven by board composition alone and board–CEO trust has little impact, then we should find a significant relation between PSEUDO_BOARD_CEO_TRUST and M&A outcome variables.

Using PSEUDO_BOARD_CEO_TRUST, we rerun our main tests in column 1 of Table 5, column 1 in Panel A of Table 6, and column 2 in Panel B of Table 6. The sample sizes are smaller than those from our main tests because we require that information for actual CEOs in position at deal announcements and former or

TABLE 7

Placebo Test: Board Trust Toward Former and Succeeding CEOs

Table 7 presents the results of a placebo test of the effect of pseudo-acquirer board–CEO trust on M&A performance. We construct PSEUDO_BOARD_CEO_TRUST using actual board information at the time of deal announcement and CEO information of former and succeeding CEOs. Former CEOs are those who left office within 5 years pre-M&A announcement. Succeeding CEOs are those who acceded to office within 5 years post-M&A announcement. The dependent variables are M&A deal announcement returns, long-term stock performance, and post-deal operating performance in columns 1–3, respectively. Variables are defined in the Appendix. In all regressions, control variables are included but their coefficient estimates are not reported for brevity. Announcement year and acquirer industry (2-digit SIC) fixed effects are included. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Variables	CAR (%)	BHAR (−1, COMPLETION) (MARKET_ADJUSTED) (%)	EBIT/ASSETS (YEAR +3) (%)
	1	2	3
PSEUDO_BOARD_CEO_TRUST	−0.240 (−1.405)	−0.059 (−0.136)	0.149 (0.782)
Control variables	Yes	Yes	Yes
Adj. R^2	0.098	0.055	0.133
No. of obs.	1,759	1,754	1,543
Year FE	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes

succeeding CEOs be available. The results in Table 7 show that the PSEUDO_BOARD_CEO_TRUST measure is not correlated with M&A outcomes. Thus, the documented negative association between BOARD_CEO_TRUST and merger outcome is unlikely to be caused by board composition alone but reflects the interaction between sitting CEOs and directors.

We conduct another placebo test using a reshuffled bilateral trust matrix from Table IA1 in the Supplementary Material. Because the trust scores we use are at the country-pair level, they may capture characteristics of country-pairs other than trust. To mitigate this concern, we randomly shuffle the bilateral trust matrix in Table IA1 in the Supplementary Material and use it to construct another pseudo-measure of board–CEO trust. We then repeat our main regressions. We repeat this procedure 1,000 times and report the distribution of the coefficient estimates on the key independent variables. If the effect of trust on M&A performance is driven by unknown characteristics in a country-pair or by noise, we should obtain significant coefficient estimates even with the pseudo-measure. The placebo test results are reported in Table IA5 in the Supplementary Material. They suggest that the effects of board–CEO trust on acquirer performance is not likely to be caused by noise or bilateral trust scores' capturing unknown characteristics at the country-pair level.

G. Two-Stage Least Squares Regressions

While the cultural traits that a director shares with her ancestors are likely exogenously determined with respect to the firm, the selection of CEO and directors is not. Hence, our trust measure is an endogenous variable that may be correlated with both M&A performance and unobserved CEO, board, or firm characteristics. To mitigate endogeneity concerns associated with board trust, we conduct a 2-stage least squares analysis using predetermined board–CEO trust based on the trust level of local residents (TRUST_LOCAL).

We measure local trust as in column 6 of Table 3, using the distribution of residents with foreign ancestral backgrounds at the county level. We obtain this measure from the American Community Survey conducted by the U.S. Census Bureau. We choose this instrument for two reasons. First, board members and CEOs are likely to be selected from local regions (Knyazeva et al. (2013), Dass et al. (2014), Yonker (2017), and Kang et al. (2018)). So the distribution of ancestral backgrounds across a local population will affect the distribution of board members, which in turn affects board–CEO trust (relevance condition). Second, the ancestral background distribution of the local population is unlikely to affect M&A outcomes (exogeneity condition).

We use TRUST_LOCAL as an instrumental variable to proxy for local trust and run 2-stage least squares regressions for our main specifications in column 1 of Table 5, column 1 in Panel A of Table 6, and column 2 in Panel B of Table 6.[17] Table 8 presents the results. In the first-stage regression in column 1, we find that

TABLE 8

Instrumented Board–CEO Trust and M&A Performance

Table 8 presents the results of 2-stage least squares regressions using the trust level of local residents (TRUST_LOCAL) as instrumental variables. TRUST_LOCAL is estimated based on average trustingness and trustworthiness in the bilateral trust score matrix (Table IA1 in the Supplementary Material), and the distribution of local residents with foreign ancestral backgrounds. The distribution is at the county level, and comes from the American Community Survey conducted by the U.S. Census Bureau. For each acquiring company, we calculate the distribution using survey responses for the firm's headquarters county and nearby counties within a 100-km radius. Column 1 presents the first-stage regression results, which predicts BOARD_CEO_TRUST using TRUST_LOCAL and control variables. The Kleibergen–Paap LM test statistic and corresponding *p*-value are reported. The dependent variables are M&A deal announcement returns, long-term stock performance, and post-deal operating performance in columns 2–4, respectively. In all regressions, control variables are included but their coefficient estimates are not reported for brevity. Announcement year and acquirer industry (2-digit SIC) fixed effects are included. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	First-Stage	Second-Stage		
Variables	BOARD_CEO_TRUST 1	CAR (%) 2	BHAR (−1, COMPLETION) (MARKET_ADJUSTED) (%) 3	EBIT/ASSETS (YEAR +3) (%) 4
TRUST_LOCAL	2.023*** (3.211)			
BOARD_CEO_TRUST (INSTRUMENTED)		−4.157** (−2.191)	−6.925* (−1.678)	−0.131 (−0.068)
Control variables	Yes	Yes	Yes	Yes
Adj. R^2	0.525	−0.159	−0.092	0.018
No. of obs.	2,617	2,617	2,608	2,153
Year FE	Yes	Yes	Yes	Yes
Acquirer industry FE	Yes	Yes	Yes	Yes
Kleibergen–Paap LM test statistic		10.180 (*p*-value = 0.001)		

[17]Our local trust measure is different from the trust measure based on General Social Survey (GSS) data in Hilary and Huang (2016). While our measure captures the local cognitive bias of individuals with different ancestry backgrounds, that in Hilary and Huang (2016) captures the general social trust level. To verify that our results are not driven by the general social trust level, we obtain the publicly available data from GSS and construct a regional-level social trust measure (TRUST_GSS). We find that TRUST_GSS is negatively related to BOARD_CEO_TRUST and TRUST_LOCAL, whereas TRUST_LOCAL is positively related to BOARD_CEO_TRUST. In unreported tests, we confirm that our main results remain unchanged after controlling for TRUST_GSS.

TRUST_LOCAL is positively and significantly associated with BOARD_CEO_TRUST. The Kleibergen–Paap LM statistic for weak instruments rejects the null hypothesis that the equation is underidentified. In the second-stage regressions in columns 2–4, where we use announcement returns, long-term stock returns, and operating performance as merger outcome variables, we find evidence that instrumented BOARD_CEO_TRUST is generally significantly and negatively associated with M&A announcement returns and post-merger long-term stock returns. While instrumented BOARD_CEO_TRUST is negatively related to post-deal operating performance, we find that the relation is insignificant. We acknowledge that the 2-stage regression results are relatively weak. While TRUST_LOCAL is likely exogenous to factors influencing the formation of board trust, it is relatively weakly related to BOARD_CEO_TRUST likely because CEOs are hired, if anything, non-locally rather than locally. Nevertheless, the results of 2-stage regressions are consistent with the view that high board trust is associated with poor merger outcome.

H. Agency Problems and the Effect of Board–CEO Trust

In this section, we investigate whether the negative effect of board–CEO trust is associated with the monitoring needs of the company.[18] We expect that firms prone to agency problems have more monitoring needs. Following prior studies (e.g., Chen et al. (2011)), we identify firms with agency problems as those with low investment opportunities and high FCF. We use operating cash flow minus cash dividends divided by total assets to proxy for FCF, and industry (3-digit SIC) median sales growth as proxies for investment opportunities. We measure FCF in the fiscal year before the deal announcement. We compute sales growth from the fiscal year before the deal announcement to the year afterward.

We first partition the sample deals by within-year sample median FCF, then by within-year sample median sales growth. We focus on two groups of M&A deals: a high-agency costs group, which contains deals with below-median sales growth and above-median FCF acquirers, and a low-agency costs group, which contains deals with above-median sales growth and below-median FCF acquirers. We conduct regression analyses for the two groups separately; the results are in Table 9.

We compare the coefficient estimates for BOARD_CEO_TRUST in column 1 to that in column 2 of Table 9. We test for equal coefficients, and we present 1-tailed *p*-values.[19] In Panel A, we use acquirer announcement return as the dependent variable. In columns 1 and 2, the coefficient estimates on BOARD_ CEO_TRUST are both negative, but only statistically significant in column 1. The two estimates are also statistically different, indicating that the negative effect of BOARD_CEO_TRUST is only present when the acquirer has high-agency costs.

In Panel B of Table 9, we use acquirer long-term stock return performance as the dependent variable. The coefficient estimate on BOARD_CEO_TRUST is significantly negative in column 1, but not in column 2. The results again indicate

[18]We thank the referee for suggesting the analysis in this section.

[19]We use a 1-tailed test because we want to determine if there is a difference between groups in a specific direction. The advantage of using a 1-tailed test is that it has more statistical power than a 2-tailed test at the same significance (alpha) level.

TABLE 9

Agency Costs and the Effect of Board–CEO Trust

Table 9 presents the results of a test of the effect of acquirer board–CEO trust on M&A performance with partitioned samples based on proxies for free cash flow (FCF) and investment opportunities. Investment opportunities is proxied for by industry (3-digit SIC) median sales growth from year t to $t + 1$. FCF is proxied for by operating cash flow minus cash dividend, divided by total assets at year t. Year t is the fiscal year prior to deal announcement. The sample deals are first partitioned by within-year sample median FCF, then partitioned by the within-year sample median investment opportunities proxy. The high-agency costs group contains deals with below-median investment opportunities and above-median FCF acquirers. The low-agency costs group contains deals with above-median investment opportunities and below-median FCF acquirers. In all regressions, control variables are included but their coefficient estimates are not reported for brevity. Announcement year and acquirer industry (2-digit SIC) fixed effects are included. Standard errors are adjusted for clustering at the acquirer level, and t-statistics are in parentheses. The p-values (1-tailed) corresponding to the differences in coefficient estimates on BOARD_CEO_TRUST between high- and low-agency costs groups are presented. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	High-Agency Costs		Low-Agency Costs
Variables	1		2
Panel A. Dependent Variable = CAR (%)			
BOARD_CEO_TRUST	−1.179***		−0.094
	(−3.059)		(−0.270)
No. of obs.	641		688
Test of equal coefficients: p-value (1-tailed)		0.022	
Control variables	Yes		Yes
Year FE	Yes		Yes
Acquirer industry FE	Yes		Yes
Panel B. Dependent Variable = BHAR (−1, COMPLETION) (MARKET_ADJUSTED) (%)			
BOARD_CEO_TRUST	−2.010**		0.076
	(−2.519)		(0.083)
No. of obs.	641		685
Test of equal coefficients: p-value (1-tailed)		0.047	
Control variables	Yes		Yes
Year FE	Yes		Yes
Acquirer industry FE	Yes		Yes
Panel C. Dependent Variable = EBIT/ASSETS (YEAR +3) (%)			
BOARD_CEO_TRUST	−0.920**		0.214
	(−1.976)		(0.643)
No. of obs.	538		565
Test of equal coefficients: p-value (1-tailed)		0.023	
Control variables	Yes		Yes
Year FE	Yes		Yes
Acquirer industry FE	Yes		Yes

that the negative effect of BOARD_CEO_TRUST is stronger for firms with high-agency costs. In Panel C, we use acquirer post-deal operating performance as the dependent variable. The coefficient estimate for BOARD_CEO_TRUST is significantly negative in column 1, and statistically different from that in column 2.

The results in Table 9 show that the negative effect of BOARD_CEO_TRUST on acquirer M&A performance is stronger when the acquirer has high-agency costs. As a robustness check, we also use industry (3-digit SIC) median Tobin's Q for the fiscal year before the deal announcement as an alternative proxy for investment opportunities. Table IA6 in the Supplementary Material shows similar results. In unreported tests, we also compare the coefficient estimates on BOARD_CEO_TRUST obtained for deals in the high-agency costs group with those for the remaining deals. We find that, in five of six comparisons (three M&A performance measures × two investment opportunities proxies), the coefficient estimates on BOARD_CEO_TRUST are significantly more negative for deals in the high-agency costs group.

I. Board–CEO Trust and Deal Withdrawal

Chen, Harford, and Li (2007) show that firms with higher institutional monitoring are more likely to withdraw bad acquisition bids. This emphasizes the role of monitoring in preventing inefficient investments. If high-trust boards are associated with poor monitoring, firms with such boards are less likely to withdraw their acquisition bids following negative market reactions to deal announcements. We, therefore, hypothesize that high board–CEO trust is associated with a lower probability of deal withdrawal given a negative market reaction to deal announcement. To test this hypothesis, we run the following logit regression model:

$$\begin{aligned}(9)\quad \text{DEAL\_WITHDRAWL} = {} & \alpha + \beta_1 \text{BOARD\_CEO\_TRUST} \\ & + \beta_2 \text{LOW\_CAR} + \beta_3 \text{BOARD\_CEO\_TRUST} \\ & \times \text{LOW\_CAR} + \beta_K \text{CONTROLS} + \text{FE} + \varepsilon,\end{aligned}$$

where the dependent variable is DEAL_WITHDRAWL, a dummy variable that equals 1 if the deal is withdrawn, and 0 otherwise. In our sample, only 5% of the M&As are withdrawn deals. LOW_CAR is a dummy variable that equals 1 if CAR is below the sample median, and 0 otherwise. The main variable of interest is the interaction between BOARD_CEO_TRUST and LOW_CAR. The hypothesis of poor monitoring by high-trust boards predicts that β_3 will be negative.

Table 10 gives the results. In column 1, consistent with our prediction, we find that the coefficient estimate on BOARD_CEO_TRUST × LOW_CAR is significantly negative. This indicates that acquirers with high board–CEO trust are less likely to withdraw their deals when receiving unfavorable market feedback to deal

TABLE 10

Effect of Acquirer Board–CEO Trust on Deal Withdrawals

Table 10 presents the results of a test of the effect of acquirer board–CEO trust on deal withdrawal. We use a logit regression model in which the dependent variable is a deal withdrawal dummy that equals 1 if the deal is withdrawn, and 0 otherwise. LOW_CAR equals 1 if CAR is below the sample median, and 0 otherwise. Variables are defined in the Appendix. In all regressions, control variables are included but their coefficient estimates are not reported for brevity. Announcement year and acquirer industry (2-digit SIC) fixed effects are included. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Variables	1	2
BOARD_CEO_TRUST	0.312 (1.633)	0.502** (2.304)
BOARD_CEO_TRUST × LOW_CAR	−0.512** (−2.341)	−0.867*** (−2.697)
LOW_CAR	−0.327 (−1.365)	0.481 (0.800)
CULTURAL_DISTANCE	0.018 (0.125)	0.247 (1.282)
CULTURAL_DISTANCE × LOW_CAR		−0.424 (−1.487)
Control variables	Yes	Yes
Pseudo R^2	0.348	0.350
No. of obs.	2,514	2,514
Year FE	Yes	Yes
Acquirer industry FE	Yes	Yes

announcements. The estimates on the other control variables indicate that the propensity to withdraw acquisition bids is greater for larger listed target firms and when competing deals are present; it is lower when acquirers are large and involve friendly mergers. In column 2, we include CULTURAL_DISTANCE × LOW_CAR to exclude the possibility that our BOARD_CEO_TRUST variable may capture other aspects of board culture. The coefficient estimate on CULTURAL_DISTANCE × LOW_CAR is negative but insignificant. The coefficient on BOARD_CEO_TRUST × LOW_CAR remains significantly negative.

IV. Conclusion

An element of trust is required in almost all economic and financial transactions (Arrow (1972)). For example, "just ordering a pizza requires faith that the dough will be well made, that the pizzeria will not abuse the customer's credit card information, and that the delivery man will not abscond with the cargo" ("Seeing is Believing," *The Economist*, Aug. 25, 2016). Trust is generally accepted to improve the performance of institutions in a society, including businesses (Putnam, Leonardi, and Nanetti (1993), Fukuyama (1995)). We find, however, that in the context of boards of directors, high trust in a CEO by the board can lead to inefficient M&A decisions. Using a sample of M&A deals made by S&P 1500 acquirers between 1996 and 2017, we find that high board trust results in poor M&A performance, particularly among acquirers prone to agency problems.

The financial crisis of 2008 has raised serious concerns about the role of corporate board governance. Because of legislation such as the SOX and increased public attention to board governance, directors have become more concerned about protecting shareholders' interests by exercising greater due diligence and tighter board monitoring of management. There is some concern, however, that the pendulum of due diligence has swung too far in the direction of boards' mistrusting management (https://dealbook.nytimes.com/2013/11/11/the-case-against-too-much-independence-on-the-board/). While a lack of trust cannot be good for board dynamics, our findings suggest that board trust may also be too much of a good thing.

Appendix. Variable Definitions

Trust and Other Cultural Variables of Board

$\text{TRUST}_{i,j}$: Trust of director i in CEO j, calculated as

$$\text{TRUST}_{i,j} = \sum_{C1=1}^{3} \sum_{C2=1}^{3} P_{i,C1} P_{j,C2} \text{BT}_{C1,C2},$$

where C1 (C2) represents the 3 most frequent countries of origin associated with director i's (CEO j's) family name. $P_{i,C1}$ ($P_{j,C2}$) is the probability of country C1 (C2) being the ancestral origin country of director i (CEO j). $\text{BT}_{C1,C2}$ denotes the level of trust that citizens of country C1 have in citizens of country C2.

BOARD_CEO_TRUST: Trust of board members in the CEO, calculated as the average of $\text{TRUST}_{i,\text{CEO}}$ for all directors on the board:

$$\text{BOARD\_CEO\_TRUST} = \sum_{i=1}^{N} \text{TRUST}_{i,\text{CEO}}/N.$$

BOARD_CEO_TRUST is standardized to have zero mean and unit variance.

WITHIN_BOARD_TRUST: Trust among board members, calculated as the average of $\text{TRUST}_{\text{DIR } i,\text{DIR } j}$ for all directors on the board (excluding the CEO). WITHIN_BOARD_TRUST is standardized to have zero mean and unit variance.

CULTURAL_DISTANCE: Average of the cultural distance between each director and CEO. CULTURAL_DISTANCE is calculated as

$$\text{CULTURAL\_DISTANCE}_{i,j} = \sqrt{\sum_{k=1}^{4} \left(I_{k,i} - I_{k,j}\right)^2 / V_k},$$

where $I_{k,\ i}$ ($I_{k,\ j}$) is director i's (CEO j's) score on cultural dimension k, calculated as the weighted average cultural scores based on the countries of origin inferred from the director's last name. V_k is the in-sample variance of $I_{k,\ i} - I_{k,\ j}$. The four cultural dimensions from Hofstede (1984) are individualism–collectivism, masculinity–femininity, power distance, and uncertainty avoidance.

CEO_TRUSTWORTHINESS: Frequency-weighted average of row-average trust scores (excluding the diagonal term) from the bilateral matrix, based on the CEO's ancestral backgrounds associated with his/her last name. CEO_TRUSTWORTHINESS is standardized to have zero mean and unit variance.

BOARD_TRUSTINGNESS: Average trustingness of all directors with available data, where trustingness is the frequency-weighted average of column-average trust scores (excluding the diagonal term) from the bilateral trust matrix based on the director's ancestral backgrounds associated with his/her last name. BOARD_TRUSTINGNESS is standardized to have zero mean and unit variance.

SAME_ANCESTRY: Average of $\text{SAME\_ANCESTRY}_{i,\text{CEO}}$ for all directors on the board. $\text{SAME\_ANCESTRY}_{i,j}$ is the trust of director i in CEO j and is computed as

$$\text{SAME\_ANCESTRY}_{i,j} = \sum_{\text{C1}=1}^{3} \sum_{\text{C2}=1}^{3} P_{i,\text{C1}} P_{j,\text{C2}} \text{BT\_DIAGONAL}_{\text{C1,C2}},$$

where C1, C2, $P_{i,\text{C1}}$, and $P_{j,\text{C2}}$ are defined as above in $\text{TRUST}_{i,j}$. $\text{BT\_DIAGONAL}_{\text{C1,C2}}$ equals $BT_{\text{C1,C2}}$ when C1 equals C2, and 0 otherwise.

RESIDUAL_BOARD_CEO_TRUST: Trust of board members in the CEO based on residual trust scores (BT_RESIDUAL). $\text{BT\_RESIDUAL}_{\text{C1, C2}}$ is the residual from regressing $\text{BT}_{\text{C1,C2}}$ on country fixed effects of C1 and C2 using all observations of country-pair BT from the trust matrix:

$$BT_{C1,C2} = \kappa_{C1} + \lambda_{C2} + \gamma \times \text{SAME\_COUNTRY} + \varepsilon_{C1,C2},$$

where κ_{C1} is a country-of-origin fixed effect, and λ_{C2} is a country-of-destination fixed effect. SAME_COUNTRY is a dummy variable that equals 1 if C1 equals C2, and 0 otherwise. $\text{BT\_RESIDUAL}_{C1,C2}$ equals the residual $\varepsilon_{C1,C2}$ from the regression. RESIDUAL_BOARD_CEO_TRUST is standardized to have zero mean and unit variance.

CEO Characteristic Variables

CEO_DUALITY: Dummy variable that equals 1 if the CEO also holds the position of chairman of the board, and 0 otherwise.

CEO_TENURE: Fiscal end date minus date of CEO appointment, divided by 365.

CEO_OWNERSHIP: Number of shares owned by the CEO divided by the number of shares outstanding.

Board Characteristic Variables

BOARD_SIZE: Total number of directors on the board.

BOARD_INDEPENDENCE: Number of independent directors divided by board size.

OUTSIDE_DIRECTOR_OWNERSHIP: Total number of shares owned by outside directors, divided by number of shares outstanding (available from 1998).

FEMALE_DIRECTOR: Number of female directors divided by board size.

BOARD_AGE: Average of directors' ages.

Firm Characteristic Variables

ln(SALES): Logarithm of 1 plus total sales.

STOCK_RETURN: Stock return during the fiscal year minus CRSP value-weighted return.

TOBINS_Q: Total liabilities plus market value of equity at fiscal year-end, divided by total assets.

INVESTMENT: Change in net property, plant, and equipment divided by total assets.

LEVERAGE: Total liabilities divided by total assets.

ln(SIGMA): Logarithm of the standard deviation of market- and industry-adjusted weekly stock returns.

EINDEX: Entrenchment index, measured as the number of antitakeover provisions made by the firm, as defined by Bebchuk et al. (2009).

%ENGLISH: Percentage of residents with English ancestral backgrounds in the firm's headquarters county. The data for the distribution of residents with foreign ancestral backgrounds at the county level are obtained from the American Community Survey conducted by the U.S. Census Bureau. This annual survey was first

conducted in 2005. For previous years, we use the 2005 survey data. %GERMAN, %IRISH, and %ITALIAN are constructed analogously.

TRUST_LOCAL: Trust score of local residents near firm headquarters. The score is estimated based on the bilateral trust score matrix and the distribution of residents with foreign ancestral backgrounds at the county level, obtained from the American Community Survey conducted by the U.S. Census Bureau. We first measure the trustingness and trustworthiness of local residents as below:

$$\text{TRUSTINGNESS\_LOCAL} = \sum_{i=1} P_i \text{TRUSTINGNESS}_i,$$

$$\text{TRUSTWORTHINESS\_LOCAL} = \sum_{i=1} P_i \text{TRUSTWORTHINESS}_i,$$

where i refers to the list of ancestry countries; P_i is the proportion of residents with i ancestral country background in the firm's headquarters county and nearby counties within a 100-km radius; TRUSTINGNESS $_i$ is the column-average trust of the ancestry country associated with country i from the bilateral trust matrix (Table IA1 in the Supplementary Material); and TRUSTWORTHINESS$_i$ is the row-average trust of the ancestry country associated with country i from the bilateral trust matrix. We exclude ancestral countries not covered in the Eurobarometer survey, and rescale P_i so that $\sum_{i=1} P_i = 1$. We then use the average of TRUSTINGNESS_LOCAL and TRUSTWORTHINESS_LOCAL as a measure of local trust, TRUST_LOCAL.

$$\text{TRUST\_LOCAL} = (\text{TRUSTINGNESS\_LOCAL} + \text{TRUSTWORTHINESS\_LOCAL})/2.$$

M&A Outcome Variables

CAR: 3-day (−1, +1) cumulative abnormal announcement returns of acquiring companies. Cumulative abnormal returns are estimated using the market model with return data for 200 trading days ending 10 days before the announcement date.

BHAR: Buy-and-hold abnormal returns (BHARs) of acquiring companies. BHAR (−1, COMPLETION) is BHAR from 1 day prior to deal announcement to the deal completion date. BHAR (−1, +252) is BHAR from 1 day prior to deal announcement to 1 year (252 trading days) afterward. Three adjustment methods are used to estimate BHAR. The first uses the market model with return data for 200 trading days ending 10 days before the announcement date. The second calculates BHAR as the buy-and-hold stock return net of the value-weighted average return of stocks in the same industry (2-digit SIC) during the same period. The third follows Barber and Lyon (1997), and calculates BHAR as the buy-and-hold stock return minus that of a firm matched by firm size and market-to-book ratio during the same period.

EBIT/ASSETS (YEAR +3): Acquirer's earnings before interest and tax divided by total assets 3 years after deal completion, minus the value in the deal completion year. EBIT/ASSETS (YEAR +2) is calculated analogously.

NET_INCOME/ASSETS (YEAR +3): Acquirer's net income divided by total assets 3 years after deal completion, minus the value in the deal completion year. NET_INCOME/ASSETS (YEAR +2) is calculated analogously.

EBITDA/ASSETS (YEAR +3): Acquirer's earnings before interest, tax, depreciation, and amortization 3 years after deal completion, minus the value in the deal completion year. EBITDA/ASSETS (YEAR +2) is calculated analogously.

DEAL_WITHDRAWL: Dummy variable that equals 1 if the deal is withdrawn, and 0 otherwise.

M&A Control Variables

PUBLIC_TARGET: Dummy variable that equals 1 if the target firm is a publicly listed company, and 0 otherwise.

ln(DEAL_VALUE): Logarithm of transaction value in millions of U.S. dollars (USD).

ln(MV): Logarithm of the market value of the acquirer 6 days prior to the deal announcement in millions of USD.

ROA: Acquirer's pretax income in the last 12 months, divided by total assets.

%CASH_PAYMENT: Percentage of considerations paid in cash.

%STOCK_PAYMENT: Percentage of considerations paid in stock.

CROSS_INDUSTRY: Dummy variable that equals 1 if the acquirer and the target have different 2-digit SIC codes, and 0 otherwise.

FRIENDLY_DEAL: Dummy variable that equals 1 for friendly deals, and 0 otherwise.

COMPETING_DEAL: Dummy variable that equals 1 if there are competing bidders, and 0 otherwise.

LOW_CAR: Dummy variable that equals 1 if the acquirer's announcement return is below the sample median, and 0 otherwise.

Supplementary Material

To view supplementary material for this article, please visit http://doi.org/10.1017/S0022109023000790.

References

Adams, R.; H. Almeida; and D. Ferreira. "Powerful CEOs and Their Impact on Corporate Performance." *Review of Financial Studies*, 18 (2005), 1403–1432.

Adams, R., and D. Ferreira. "A Theory of Friendly Boards." *Journal of Finance*, 62 (2007), 217–250.

Adams, R., and D. Ferreira. "Do Directors Perform for Pay?" *Journal of Accounting and Economics*, 46 (2008), 154–171.

Adams, R., and D. Ferreira. "Women in the Boardroom and Their Impact on Governance and Performance." *Journal of Financial Economics*, 94 (2009), 291–309.

Adams, R.; B. Hermalin; and M. Weisbach. "The Role of Boards of Directors in Corporate Governance: A Conceptual Framework and Survey." *Journal of Economic Literature*, 48 (2010), 58–107.

Ahern, K.; D. Daminelli; and C. Fracassi. "Lost in Translation? The Effect of Cultural Values on Mergers Around the World." *Journal of Financial Economics*, 117 (2015), 165–189.

Alesina, A.; P. Giuliano; and N. Nunn. "On the Origins of Gender Roles: Women and the Plough." *Quarterly Journal of Economics*, 128 (2013), 469–530.

Algan, Y., and P. Cahuc. "Inherited Trust and Growth." *American Economic Review*, 100 (2010), 2060–2092.

Armstrong, C.; W. Guay; and J. Weber. "The Role of Information and Financial Reporting in Corporate Governance and Debt Contracting." *Journal of Accounting and Economics*, 50 (2010), 179–234.
Arrow, K. "Gifts and Exchanges." *Philosophy & Public Affairs*, 1 (1972), 343–362.
Barber, B. M., and J. D. Lyon. "Detecting Long-Run Abnormal Stock Returns: The Empirical Power and Specification of Test Statistics." *Journal of Financial Economics*, 43 (1997), 341–372.
Baron, R.; J. Vandello; and B. Brunsman. "The Forgotten Variable in Conformity Research: Impact of Task Importance on Social Influence." *Journal of Personality and Social Psychology*, 71 (1996), 915–927.
Bebchuk, L.; A. Cohen; and A. Ferrell. "What Matters in Corporate Governance?" *Review of Financial Studies*, 22 (2009), 783–827.
Bebchuk, L.; K. M. Cremers; and U. C. Peyer. "The CEO Pay Slice." *Journal of Financial Economics*, 102 (2011), 199–221.
Ben-David, I.; U. Bhattacharya; and S. E. Jacobsen. "The (Missing) Relation between Announcement Returns and Value Creation." NBER Working Paper No. 27976 (2022).
Bhagwat, V., and X. Liu. "The Role of Trust in Information Processing: Evidence from Security Analysts." *Accounting Review*, 95 (2020), 59–83.
Bottazzi, L.; M. Da Rin; and T. Hellmann. "The Importance of Trust for Investment: Evidence from Venture Capital." *Review of Financial Studies*, 29 (2016), 2283–2318.
Brickley, J., and J. Zimmerman. "Corporate Governance Myths: Comments on Armstrong, Guay, and Weber." *Journal of Accounting and Economics*, 50 (2010), 235–245.
Butler, J. V.; P. Giuliano; and L. Guiso. "The Right Amount of Trust." *Journal of the European Economic Association*, 14 (2016), 1155–1180.
Canet, A. "Groupthink in the Boardroom – The Good, the Bad, and the Ugly." Working Paper, HEC Paris (2016).
Chen, K. C. W.; Z. Chen; and K. C. J. Wei. "Agency Costs of Free Cash Flow and the Effect of Shareholder Rights on the Implied Cost of Equity Capital." *Journal of Financial and Quantitative Analysis*, 46 (2011), 171–207.
Chen, X.; J. Harford; and K. Li. "Monitoring: Which Institutions Matter?" *Journal of Financial Economics*, 86 (2007), 279–305.
Coles, J.; N. Daniel; and L. Naveen. "Co-opted Boards." *Review of Financial Studies*, 27 (2014), 1751–1796.
Core, J., and W. Guay. "Estimating the Value of Employee Stock Option Portfolios and Their Sensitivities to Price and Volatility." *Journal of Accounting Research*, 40 (2002), 613–630.
Custódio, C.; M. A. Ferreira; and P. Matos. "Generalists Versus Specialists: Lifetime Work Experience and Chief Executive Officer Pay." *Journal of Financial Economics*, 108 (2013), 471–492.
Dass, N.; O. Kini; V. Nanda; B. Onal; and J. Wang. "Board Expertise: Do Directors from Related Industries Help Bridge the Information Gap?" *Review of Financial Studies*, 27 (2014), 1533–1592.
Durlauf, S., and M. Fafchamps. "Social Capital." In *Handbook of Economic Growth*, Vol. 1A, P. Aghion and S. Durlauf, eds. Amsterdam: North Holland (2006), 1639–1699.
Fukuyama, F. *Trust: The Social Virtues and the Creation of Prosperity.* New York: Free Press (1995).
Garrett, J.; R. Hoitash; and D. Prawitt. "Trust and Financial Reporting Quality." *Journal of Accounting Research*, 52 (2014), 1087–1125.
Giannetti, M., and M. Zhao. "Board Ancestral Diversity and Firm-Performance Volatility." *Journal of Financial and Quantitative Analysis*, 54 (2019), 1117–1155.
Graham, J.; H. Kim; and M. Leary. "CEO-Board Dynamics." *Journal of Financial Economics*, 137 (2020), 612–636.
Greenwald, A. G., and M. R. Banaji. "Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes." *Psychological Review*, 102 (1995), 4–27.
Guiso, L.; P. Sapienza; and L. Zingales. "Does Culture Affect Economic Outcomes?" *Journal of Economic Perspectives*, 20 (2006), 23–48.
Guiso, L.; P. Sapienza; and L. Zingales. "Trusting the Stock Market." *Journal of Finance*, 63 (2008), 2557–2600.
Guiso, L.; P. Sapienza; and L. Zingales. "Cultural Biases in Economic Exchange?" *Quarterly Journal of Economics*, 124 (2009), 1095–1131.
Harris, M., and A. Raviv. "A Theory of Board Control and Size." *Review of Financial Studies*, 21 (2008), 1797–1831.
Hasan, I.; C. Hoi; Q. Wu; and H. Zhang. "Does Social Capital Matter in Corporate Decisions? Evidence from Corporate Tax Avoidance." *Journal of Accounting Research*, 55 (2017a), 629–668.
Hasan, I.; C. Hoi; Q. Wu; and H. Zhang. "Social Capital and Debt Contracting: Evidence from Bank Loans and Public Bonds." *Journal of Financial and Quantitative Analysis*, 52 (2017b), 1017–1047.
Hayes, R. M.; F. Jiang; and Y. Pan. "Voice of the Customers: Local Trust Culture and Consumer Complaints to the CFPB." *Journal of Accounting Research*, 59 (2021), 1077–1121.

Hilary, G., and S. Huang. "Trust and Contracting." Working Paper, INSEAD (2016).
Hofstede, G. *Culture's Consequences: International Differences in Work-Related Values*. Newbury Park, CA: SAGE (1984).
Janis, I. *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*. Boston, MA: Cengage Learning (1982).
Kanagaretnam, K.; G. Lobo; C. Wang; and D. Whalen. "Cross-Country Evidence on the Relationship Between Societal Trust and Risk-Taking by Banks." *Journal of Financial and Quantitative Analysis*, 54 (2019), 275–301.
Kang, S.; E. H. Kim; and Y. Lu. "Does Independent Directors' CEO Experience Matter?" *Review of Finance*, 22 (2018), 905–949.
Knack, S., and P. Keefer. "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation." *Quarterly Journal of Economics*, 112 (1997), 1251–1288.
Knyazeva, A.; D. Knyazeva; and R. W. Masulis. "The Supply of Corporate Directors and Board Independence." *Review of Financial Studies*, 26 (2013), 1561–1605.
Kogut, B., and H. Singh. "The Effect of National Culture on the Choice of Entry Mode." *Journal of International Business Studies*, 19 (1988), 411–432.
La Porta, R.; F. Lopez-de-Silanes; A. Shleifer; and R. Vishny. "Trust in Large Organizations." *American Economic Review*, 87 (1997), 333–338.
Langfred, C. "Too Much of a Good Thing? Negative Effects of High Trust and Individual Autonomy in Self-Managing Teams." *Academy of Management Journal*, 47 (2004), 385–399.
Lim, J.; A. Makhija; and O. Shenkar. "The Asymmetric Relationship Between National Cultural Distance and Target Premiums in Cross-Border M&A." *Journal of Corporate Finance*, 41 (2016), 542–571.
Liu, X. "Corruption Culture and Corporate Misconduct." *Journal of Financial Economics*, 122 (2016), 307–327.
Luscri, G., and P. Mohr. "Surname Effects in Judgments of Mock Jurors." *Psychological Reports*, 82 (1998), 1023–1026.
Malmendier, U.; E. Moretti; and F. S. Peters. "Winning by Losing: Evidence on the Long-Run Effects of Mergers." *Review of Financial Studies*, 31 (2018), 3212–3264.
Malmendier, U., and G. Tate. "Behavioral CEOs: The Role of Managerial Overconfidence." *Journal of Economic Perspectives*, 29 (2015), 37–60.
Mateos, P. "A Review of Name – Based Ethnicity Classification Methods and Their Potential in Population Studies." *Population, Space and Place*, 13 (2007), 243–263.
Nguyen, D.; J. Hagendorff; and A. Eshraghi. "Does a CEO's Cultural Heritage Affect Performance Under Competitive Pressure?" *Review of Financial Studies*, 31 (2018), 97–141.
O'Connor, M. "The Enron Board: The Perils of Groupthink." *University of Cincinnati Law Review*, 71 (2003), 1233–1320.
Pan, Y.; S. Siegel; and T. Wang. "Corporate Risk Culture." *Journal of Financial and Quantitative Analysis*, 52 (2017), 2327–2367.
Pan, Y.; S. Siegel; and T. Wang. "The Cultural Origin of CEOs' Attitudes Towards Uncertainty: Evidence from Corporate Acquisitions." *Review of Financial Studies*, 33 (2019), 2977–3030.
Putnam, R.; R. Leonardi; and R. Nanetti. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press (1993).
Raheja, C. "Determinants of Board Size and Composition: A Theory of Corporate Boards." *Journal of Financial and Quantitative Analysis*, 40 (2005), 283–306.
Skinner, D.; G. Dietz; and A. Weibel. "The Dark Side of Trust: When Trust Becomes a 'Poisoned Chalice'." *Organization*, 21 (2014), 206–224.
Villena, V. H.; E. Revilla; and T. Y. Choi. "The Dark Side of Buyer-Supplier Relationships: A Social Capital Perspective." *Journal of Operations Management*, 29 (2011), 561–576.
Waters, M. "The Everyday Use of Surname to Determine Ethnic Ancestry." *Qualitative Sociology*, 12 (1989), 303–324.
Xie, F.; B. Zhang; and W. Zhang. "Trust, Incomplete Contracting, and Corporate Innovation." *Management Science*, 68 (2022), 3175–3973.
Yonker, S. E. "Geography and the Market for CEOs." *Management Science*, 63 (2017), 609–630.
Zahra, S. A.; R. I. Yavuz; and D. Ucbasaran. "How Much Do You Trust Me? The Dark Side of Relational Trust in New Business Creation in Established Companies." *Entrepreneurship Theory and Practice*, 30 (2006), 541–559.
Zheng, J., and Y. Zhu. "Chair–CEO Trust and Firm Performance." *Australian Journal of Management*, 47(1) (2021), 163–196.