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

Kee-Hong Bae, Sadok El Ghoul, Zhaoran (Jason) Gong, and Omrane Guedhami*

This version: October 2020

JEL classifications: G34, G41, M14

Keywords: Board of Directors, Board–CEO Trust, Corporate Board Governance, Mergers and Acquisitions

* Bae is from the Schulich School of Business, York University, e-mail: kbae@schulich.yorku.ca; El Ghoul is from the University of Alberta, e-mail: elghoul@ualberta.ca; Gong is from Lingnan University, e-mail: jason.gong@ln.edu.hk; and Guedhami is from the Darla Moore School of Business, University of South Carolina, e-mail: omrane.guedhami@moore.sc.edu. We are grateful for comments from Kai Li, Pierre Chaigneau, Wei Wang, Louis Gagnon, Jun-Koo Kang, Ambrus Kecskés, Jin Wang, Vidhan Goyal, Pouyan Foroughi, Lilian Ng, Warren Bailey, Yihui Pan, Xiangang Xin, Ming Dong, Nancy Buchan, and Ari Pandes. We also thank seminar participants at Queen's University, Lingnan University, and Korea University, and participants at the 2020 Northern Finance Association meeting. Bae and El Ghoul appreciate the generous financial support from Canada's Social Sciences and Humanities Research Council.

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

Abstract

Does trust between the board of directors and CEO improve corporate board governance? Contrary to the conventional wisdom that trust improves the performance of all institutions in a society, we find that firms with higher levels of board–CEO trust are less effective. High trust is associated with low CEO pay-performance sensitivity, low CEO turnover-performance sensitivity, and low board meeting attendance. Less board monitoring in turn leads to poor acquisition performance. Our results suggest that in the institutional setting of a board of directors, trust can be too much of a good thing.

1. Introduction

Most economic activity in modern society is conducted by corporations. Because high-performing boards of directors are essential to corporations' success, understanding what makes boards effective is of fundamental importance (Adams, Hermalin, and Weisbach, 2010). An extensive literature provides evidence of how the structure of a board (e.g., size, independence, and diversity) affects the board's actions and the firm's performance. However, little is known about the effects of aspects of board culture such as board trust. In this study, we investigate whether and how trust between board members and the CEO (board–CEO trust)[1] affects board and firm performance in the setting of mergers and acquisitions (M&As).

A natural null hypothesis is that board–CEO trust has no effect on board performance. As CEOs and directors are highly sophisticated and accomplished professionals, board–CEO trust may not affect a board's decision-making process. However, certain behavioral biases significantly affect decision-making (Hirshleifer, 2015), which suggests that trust may affect the decisions and effectiveness of boards. While no extant theories of boards explicitly model the role that trust plays in board dynamics, trust can positively affect board effectiveness for several reasons. First, trust can serve as an alternative mechanism to board monitoring and incentive-based pay, which are standard mechanisms for mitigating agency problems (Chami and Fullenkamp, 2002; Hilary and Huang, 2016). If the board is confident that the CEO will not engage in opportunistic behavior, costly tools for mitigating potential moral hazard will not be required. Trust acts as an informal mechanism that substitutes for the expensive process of monitoring the CEO. Second, trust can facilitate information exchange between the CEO and the board, which is essential for effective boards. Several theoretical models suggest that information exchange is crucial in determining the optimal board size and composition (Raheja, 2005; Adams and Ferreira, 2007; Harris and Raviv, 2008). Third, an extensive organizational literature suggests that trust can benefit individuals and teams through improved communication and reduced competitive behavior and conflict (Dirks and Ferrin, 2001).

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

Alternatively, trust may negatively affect board effectiveness. A firm's board of directors is a team, but it has unique characteristics that distinguish it from a traditional team in a firm. For example, it is self-managing and involves interdependent directors who have the final say on practically all corporate decisions, including whether to monitor the CEO. The social psychology literature on small-group decision-making has suggested that a self-managing team that is characterized by a high degree of trust can have a powerful influence on individuals, persuading them to conform (Baron, Vandello, and Brunsman, 1996) and to engage in *groupthink* (Janis, 1982).[2] These social forces make it difficult for individual directors in high-trust boards to engage in monitoring (O'Connor, 2003; Langfred, 2004), which may result in ineffective oversight and in turn poor corporate decisions. The "dark side" of trust are documented in other contexts in businesses. Skinner, Dietz, and Weibel (2014) identify the circumstances in which trust can become a "poisoned chalice" for the parties involved. Zahra, Yavuz, and Ucbasaran (2006) illustrate the negative effects of trust on new business creation in established companies, such as overreliance on trust leading to poor business decisions. Villena, Revilla, and Choi (2011) find that too much trust in supplier–customer relationships can hurt performance in supply chain management.

In short, the relationship between board–CEO trust and board effectiveness is an empirical question. Under the null hypothesis that trust has no effect, board–CEO trust is not related to the board monitoring of the CEO. An alternative hypothesis states that board–CEO trust has a negative influence on board monitoring. Looked at positively, board–CEO trust is an inexpensive substitute for expensive monitoring and so less monitoring is predicted. From a negative viewpoint, misplaced trust in a CEO by a high-trust board leads to less monitoring of the CEO. The resulting lower level of monitoring may fail to meet the amount required for due diligence.[3]

[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 overrides their motivation to realistically appraise alternative course of actions." Prior work argues that groupthink in the boardroom contributed to the greatest corporate scandals such as Enron and WorldCom (O'Connor, 2003; Canet, 2016).

[3] The effect of board–CEO trust on a board's advisory role is less clear. From a positive viewpoint, trust will improve communication and information exchange between CEO and board, which will facilitate effective advising. A reduced need for monitoring can allow for more advising, to the extent that board monitoring and advising functions are

Our empirical testing strategy proceeds in two stages. In the first stage, we validate our measure of board trust by documenting a negative relationship between board trust and several measures of board monitoring. Because both positive and negative views of board trust predict the association of low monitoring with a high-trust board, we should find a negative relationship between board trust and board monitoring unless we fail to reject the null hypothesis of no relationship. In the second stage, we distinguish between the two competing views of board trust by testing the value implications of board trust. Specifically, we investigate the effect of board trust on the board's M&A decisions. M&As, which require board approval, are one of the most important investment decisions that boards make, and thus can have a huge 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 capture 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; Giannetti and Zhao, 2019). We then use the Eurobarometer survey data on country-pair bilateral trust scores used in Guiso, Sapienza, and Zingales (2009) to assess 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 in our measure of trust is that second- or later-generation descendants of immigrants continue to exhibit the cultural traits of their forebears. Guiso, Sapienza, and Zingales (2006) show that cultural history can affect individuals in a new environment even after several generations have passed. To capture the extent of board monitoring, we use three measures: CEO pay–performance sensitivity (Hartzell and Starks, 2003; Faleye, 2007; Ferri and Maber, 2013), CEO turnover–performance sensitivity (Kang and Shivdasani, 1997; Huson, Parrino, and Starks, 2001; Hermalin 2005; Kulchania, 2016), and directors' board meeting attendance (Adams and Ferreira, 2008, 2009; Li and Srinivasan, 2011).

substitutes (Armstrong, Guay, and Weber, 2010). From a negative viewpoint, the pressure for conformity and groupthink in a high-trust board will make advising less effective, and if monitoring and advising are regarded as complementary (Brickley and Zimmerman, 2010), less monitoring will be associated with less advising.

Using a sample of 27,186 firm-year observations for S&P 1500 firms between 1996 and 2017, we find that board–CEO trust is negatively related to all three measures of board monitoring. An increase in board–CEO trust is related to lower pay–performance sensitivity, weaker turnover–performance sensitivity, and lower board meeting attendance.

Having validated our measure of board trust, we next examine the relationship between board–CEO trust and M&A performance. We focus on the M&A deals conducted from 1996 to 2017 by firms in the S&P 1500. 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 three 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, an increase in the board–CEO trust measure by one standard deviation is associated with a 0.48% 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 measures of board–CEO trust, alternative sample countries for CEO and director ancestry, alternative sample periods, and alternative M&A announcement event windows. We also find 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. This suggests that the trust between directors is not what matters; rather, the trust between the board and the CEO is important in this respect.

We conduct several robustness tests to address concerns with our measure of board–CEO trust. It could be argued that strong social ties between a CEO and board members may be a confounding factor driving our findings. In addition, high board–CEO trust may be due to powerful CEOs who influence the selection of board members such that boards appoint directors with the same ethnic background as the CEO, in which case our findings may be driven by weak firm governance. We find that the negative effects of board–CEO trust on announcement returns are robust to controlling for social ties between the CEO and board members and also for measures of a firm's governance. In all of the regressions, we control for the cultural distance between the CEO and board members. This cultural distance is measured in a similar way to board–CEO

trust, using the cultural dimensions proposed by Hofstede (1984). To further mitigate concerns that our measure of trust might be a proxy for other aspects of culture among board members, we further control for religious similarity and language similarity between the CEO and board, and the ancestral diversity of the board. Stulz and Williamson (2003) note that religion and language are the two most important variables capturing differences in culture across countries. Giannetti and Zhao (2019) find that boards with greater ancestral diversity make less predictable decisions. Controlling for these additional cultural variables does not change the effect of board–CEO trust on announcement returns.

In additional analysis, we find that board–CEO trust is negatively related to post-merger operating performance, as measured by the acquirer's net income over total assets. This effect is economically significant. An increase in our measure of board–CEO trust by one standard deviation is associated with a 0.46% decrease in operating performance three years after a deal is completed, from an average of 3.81% in the year of deal completion. We also find that when acquirers with high board–CEO trust receive negative market feedback after deal announcements, they are less likely to withdraw their deals. Our evidence indicates that high-trust boards are associated with a decrease in the board monitoring of CEOs, which in turn results in poor acquisition decisions.[4]

The cultural traits that a board director shares with her ancestors are likely to be determined exogenously with respect to the firm. In contrast, the selection of CEO and board directors is an endogenous decision, and thus our trust measure is an endogenous variable. However, endogeneity is less of a concern in the M&A setting because an optimal board composition is not necessarily determined specifically for M&A at the time of an M&A decision (Schmidt, 2015). Nonetheless, we mitigate the endogeneity concerns by conducting a placebo test. Specifically, we re-run our empirical analyses of the effect of trust on M&A performance using a pseudo-trust measure. If the effect we attribute to trust actually arises from differences

[4] Our evidence of inactive board monitoring leading to poor M&A performance is consistent with Cornelli, Kominek, and Ljungqvist (2013). They study whether active board monitoring improves performance, using data for a large sample of private equity-backed firms. They show that governance reforms increase the effectiveness of board monitoring and establish a causal link between forced CEO turnover and performance improvements.

in unobserved characteristics in a country-pair or simply from noise, we should find a significant trust effect from a pseudo-trust measure. We find no such effect.

Note that our trust measure captures generalized trust, which is based on general knowledge about a random member of an identifiable group, rather than personalized trust, which is based on repeated interpersonal interactions. While personalized trust evolves over time, generalized trust is instantaneous and presumed (Durlauf and Fafchamps, 2006). Given that generalized trust is exogenous while personalized trust is endogenous, the two are not likely to be correlated. Furthermore, given that directors interact frequently and repeatedly, cooperation may be possible even without personalized trust, as reputation concerns and opportunities for future punishments can support cooperation (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997). As reputation represents an important asset for CEOs and directors in the managerial labor market, boards of directors can be sustainable with low levels of, or even without, personalized trust. Thus, the effects we document are not likely to be affected by a lack of personalized trust.

One could argue that our evidence is difficult to reconcile with the equilibrium view of corporate boards. 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. Note that the optimal level of trust built through repeated interaction is concerned with personalized trust. In contrast, our measure of trust captures instantaneous and presumed generalized trust, which may be an implicit bias where particular qualities are unconsciously attributed to a member of a certain social group (Greenwald and Banaji, 1995).

Our study contributes to several strands of the literature. First, it adds to the literature on corporate board governance. The effect of board composition such as board size and independence on board actions and firm performance is extensively examined. See Adams, Hermalin, and Weisbach (2010) for a literature review. Little is known, however, about how board culture affects CEO–board dynamics and board performance. We fill this gap by showing that board–CEO trust is an important cultural aspect of corporate board governance in addition to CEO tenure, chair duality, and board independence, which have been shown to affect CEO–board dynamics (Graham, Kim, and Leary, 2020).

Second, our study adds to the literature that uses family names to infer individuals' cultural backgrounds (Liu, 2016; Pan, Siegel, and Wang, 2017, 2019; Giannetti and Zhao, 2019; Hagendorff, Lim, and Nguyen, 2019). These studies show that cultural traits affect the attitudes and preferences of CEOs and directors, which in turn influence corporate cultures and policies. Our study shows that a cultural trait such as trust can be an important factor in CEO–board dynamics.

Finally, our study adds to the literature on trust. Many studies find that trust matters in various aspects of economic and financial transactions.[5] Most studies find that high levels of trust improve the outcome variables. A notable exception is Bottazzi, Da Rin, and Hellmann (2016), who study venture capital investment and find that trust is negatively related to successful exits, while it is positively related to investment. Our evidence indicates that a high level of trust placed in a CEO by the board can lead to inefficient M&A investment decisions.

The remainder of the study is organized as follows. In Section 2, we describe our sample construction and variables. In Section 3, we validate our measure of trust by documenting a negative association between board–CEO trust and board monitoring. In Section 4, we report our empirical results regarding the relationship between board–CEO trust and M&A performance. Finally, in Section 5 we present our conclusion.

2. Sample construction and variables

The data on directors are compiled from the Institutional Shareholders Services (ISS) database (formerly RiskMetrics). The ISS director database provides information on a range of variables related to individual board directors, including name, age, tenure, gender, committee memberships, and independence

[5] Studies of trust address economic growth and social efficiency (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997; Knack and Keefer, 1997; Zak and Knack, 2001; Algan and Cahuc, 2010), stock market participation (Guiso, Sapienza, and Zingales, 2008), trade and investments between countries (Guiso, Sapienza, and Zingales, 2009), venture capital investment (Bottazzi, Da Rin, and Hellmann, 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), foreign subsidiary performance (Lu, Song, and Shan, 2018), risk-taking (Kanagaretnam, Lobo, Wang, and Whalen, 2019), debt contracting (Hasan, Hoi, Wu, and Zhang, 2017b; Brockman, El Ghoul, Guedhami, and Zheng, 2020), and corporate innovation (Xie, Zhang, and Zhang, 2019).

classification. The database covers S&P 1500 companies since 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 and board monitoring for a sample of S&P 1500 companies between 1996 and 2017. We discuss the construction of the M&A sample in Section 4.

2.1. Measuring board–CEO trust

To measure board–CEO trust, we proceed in three 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 capturing bilateral trust scores for their countries of origin, and take the average of the trust scores obtained for all CEO–director pairs in a given board for each firm-year.

To establish ancestry using family names, we follow the methods of Liu (2016), Pan, Siegel, and Wang (2017, 2019), and Giannetti and Zhao (2019).[6] 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.[7]

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%) from Italy, 251 (3.3%) from the U.S. (i.e., re-entering U.S. citizens), and 127 (1.7%) from the U.K. The remaining 465 are from 32 other countries. We exclude re-entering U.S. citizens and any passengers for whom we

[6] Ancestry is often established using family names in disciplines such as demography, geography, genetics, and epidemiology. See Mateos (2007) for a review.
[7] We group English, Scottish, and Welsh passengers under the U.K. category.

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 $P_{Family\_name,Country}$.

Table 1 presents the sample composition. For the 1996 to 2017 period, we identify 40,100 unique directors from the ISS database. We are able to match 97.7% of them with family names on Ancestry.com. The U.K., Germany, and Ireland make up the largest proportions, with 41.3%, 14.0%, and 11.7%, respectively. Similarly, we are able to match 97.6% of the 7,407 unique CEOs in ExecuComp over the 1996 to 2017 period with family names on Ancestry.com. Again, the U.K., Germany and Ireland make up the largest proportions, with 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, following Guiso, Sapienza, and Zingales (2009). Eurobarometer has conducted public opinion surveys in European Union (EU) member countries since 1970, with country coverage increasing from five countries in 1970 to 16 in 1996.[8] The question on trust is as 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, Sapienza, and Zingales (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."

Appendix A presents the trust scores for the country-pairs among our sample countries, which include 16 EU and 11 non-EU countries.[9] 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, as the trust that citizens of country X have in citizens of country Y can differ from the trust that citizens of Y have in citizens of X. For example, the average score of the trust Britons have in the French is 2.32, whereas the trust the French have in the Britons is 2.55.

[8] The 16 countries comprise France, Belgium, the Netherlands, Germany, Italy, Luxembourg, Denmark, the U.K., Ireland, Greece, Spain, Portugal, Norway, Sweden, Finland, and Austria.
[9] Non-EU countries (as of 1996) comprise China, Russia, Japan, Switzerland, Turkey, Bulgaria, Romania, Hungary, Poland, Slovenia, and the Czech Republic (Slovakia).

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

$$Trust_{i,j} = \sum_{C1=1}^{3} \sum_{C2=1}^{3} P_{i,C1} P_{j,C2} BT_{C1,C2}, \quad (1)$$

where *C1* (*C2*) represents the three countries of origin most frequently 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 of Director *i* (CEO *j*), and $BT_{C1,C2}$ is the level of trust that citizens of country *C1* have in those of country *C2*.

Several issues with our trust measure are worth noting. First, a family name can often be traced back to several countries. Our trust measure assumes that the probability of a country's being the origin of a family name is given by the frequency of the country observed on Ancestry.com. Using all countries of origin is likely to add noise, so we use the three most frequent countries for each family name. Second, we do not have bilateral trust scores for some country-pairs because the Eurobarometer surveys do not cover all countries on Ancestry.com. We therefore rescale $P_{i,C1}$ ($P_{j,C2}$) so that $\sum_{C1=1}^{3} P_{i,C1}$ ($\sum_{C2=1}^{3} P_{j,C2}$) equals 1. Third, our trust measure is subject to measurement errors arising from several sources: the trust matrix compiled from the Eurobarometer survey may not reflect true trust levels; 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 some countries on Ancestry.com are not covered by Eurobarometer survey data and so the trust scores are missing. However, these measurement errors are not likely to have any systematic correlation with the variables we use to proxy for corporate board monitoring and M&A performance, and thus any noise associated with measuring trust should increase attenuation bias, which biases against finding significant results.

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:

$$Board\_CEO\_trust = \sum_{i=1}^{N} Trust_{i,CEO} / N, \quad (2)$$

where $Trust_{i,\ CEO}$ is the trust score of Director *i* in the firm's CEO and *N* is the number of directors with available trust scores. We obtain 27,186 observations for S&P 1500 firms between 1996 and 2017.

Figure 1 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 and standardize it to have zero mean and unit variance. The standardized *Board_CEO_trust* ranges from -3.09 to 1.71.

2.2. Board monitoring variables

We capture the extent of board monitoring (or its outcome) using three measures. We first use CEO pay–performance sensitivity (PPS). Hartzell and Starks (2003) find that institutional holdings are associated with higher PPS. This is consistent with the view that institutional investors are better monitors than retail investors because the former have greater expertise and larger stakes, which increases incentives to engage in costly monitoring. Faleye (2007) argues that CEOs of firms with staggered board terms have lower PPS due to CEO entrenchment. Ferri and Maber (2013) find that PPS increased in the U.K. following the introduction of say-on-pay legislation for firms with high abnormal CEO pay. As a proxy for PPS, we use CEO delta, the expected dollar ($000) change in CEO wealth in response to a 1% change in the firm's stock price. We follow Core and Guay (2002) in estimating CEO delta using the CEO's entire portfolio of stocks and options.

Our second measure of board monitoring is CEO turnover–performance sensitivity (TPS). CEO turnover typically increases as firm performance declines. This negative relationship is weaker in firms with weak corporate governance (Kang and Shivdasani, 1995; Hermalin, 2005; Huson, Parrino, and Starks, 2001; Kaplan and Minton, 2012). Accordingly, when board–CEO trust is high, CEO turnover is likely to be less sensitive to performance. In other words, poorly performing CEOs are less likely to be replaced. We measure TPS as the coefficient from regressing a *CEO_turnover* dummy on firm performance, where the dummy is equal to 1 if the CEO departs during the fiscal year, and 0 otherwise, and firm performance is the firm's stock return minus the CRSP value-weighted return.

Our third measure of board monitoring is directors' board meeting attendance, which is commonly used as a proxy for board effort (e.g., Adams and Ferreira, 2008, 2009; Li and Srinivasan, 2011). Following the prior literature, we define directors with attendance problems as those who attend fewer than 75% of board meetings in a given year. We then construct a firm-year level *Attendance_problem* dummy that is equal to 1 if one or more directors on the board have attendance problems in that year and 0 otherwise.

Table 2 presents summary statistics for the measures of board monitoring. We find that the logarithm of CEO delta is 5.31 on average, with a standard deviation of 1.61, CEO turnover is 8% on average, and 7% of our sample observations have board meeting attendance problems.

2.3. Control variables

Our main regression analyses include a number of CEO, board, and firm characteristics that are likely to affect board monitoring. At the CEO level, we control for the following variables: *CEO_duality*, a dummy variable equal to 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. Table 2 presents descriptive statistics for these measures. We find that 58% of the sample firms have a CEO who is also chairman of the board, *CEO_tenure* averages 7.6 years, and *CEO_ownership* is 1.01% on average.

With respect to board characteristics,[10] we control for the following variables, which 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_co-option*, 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; *Director_age*, the average age of directors; *Number_of_directorships*, the average number of directors' outside directorships; *Retired_directors*, the

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

number of retired directors divided by board size, where retired directors are those with the word "retired" in their title or who are 70 years old or older; *Meeting_fee*, the average of directors' board meeting fees; and the number of board meetings. An average board has 8.4 directors, of whom 83% are independent; outside directors own 1.35% of outstanding shares; and female directors hold 12% of board seats. Directors are 61 years old on average; a director holds on average 0.54 outside directorships; 29% of directors are retired; average attendance fees are $1,150 per meeting; and boards meet an average of 7.3 times per year.

In addition to the traditional board characteristics, we follow Kogut and Singh (1988) in measuring the cultural distance between two directors as follows:

$$Cultural\ distance_{i,j} = \sqrt{\sum_{k=1}^{4} (I_{k,i} - I_{k,j})^2 / V_k}\,, \tag{3}$$

where $I_{k,i}$ ($I_{k,j}$) is director i's (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, where the weights are given by the frequency distribution of the countries of origin of the director's family name.[11] 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 of the board. The mean and median of *Cultural_distance* is 2.10 and 1.96, respectively, with a standard deviation of 0.96.

At the firm level, we control for the following characteristics: firm size, the logarithm of 1 plus total sales; *Stock_return*, the stock return during the fiscal year minus the CRSP value-weighted return; *Tobin's Q*, total liabilities plus the market value of equity at the 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; *Log*(*sigma*), the logarithm of the standard deviation of market- and industry-adjusted weekly

[11] Consistent with *Board_CEO_trust*, we use the three countries of origin most frequently associated with a director's family name.

stock returns; and *E-index*, the Entrenchment index, constructed as the number of antitakeover provisions from the six listed by Bebchuk, Cohen, and Ferrell (2009).

2.4. Determinants of board–CEO trust

In empirical studies of boards, almost all of 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 CEO and directors is an endogenous decision and thus our trust measure suffers from endogeneity. We regress *Board_CEO_trust* on the firm, CEO, and board characteristics above to determine whether there are any correlations among them.

Column (1) of Table 3 presents the results using firm characteristics as the independent variables. In column (2), we use CEO and board characteristics as independent variables. In column (3), we include all of the firm, CEO, and board characteristics simultaneously. Each of these regressions controls for year and industry (SIC 2-digit) fixed effects. We find that none of the firm characteristics is significantly related to *Board_CEO_trust*. With respect to CEO and board characteristics, *CEO_tenure* and *Board_size* are significantly positively associated with *Board_CEO_trust*, while *CEO_ownership* and *Female_director* are significantly negatively related to *Board_CEO_trust*.

Columns (4) to (6) repeat the regressions in columns (1) to (3) but control for firm-fixed effects. We find that none of the firm, CEO, or board characteristics are significant in these specifications, which suggests that it is important to control for firm fixed effects in our regression analyses below.

3. Validating trust measure: confirming negative relationship between board–CEO trust and board monitoring

In this section, we validate our measure of trust by confirming the negative relationship between board–CEO trust and board monitoring. To do so, we regress each of our three measures of board monitoring on *Board_CEO_trust*, controlling for CEO, board, and firm characteristics. In this analysis, we use a sample of S&P 1500 companies from the 1996 to 2017 period.

3.1. Board–CEO trust and CEO pay–performance sensitivity

We hypothesize that high board–CEO trust is associated with lower PPS, as captured by CEO delta. We regress *Log*(*delta*), the logarithm of 1 plus CEO delta, on *Board_CEO_trust* as well as CEO, board, and firm characteristics known to affect CEO delta. Standard errors are adjusted for clustering at the firm level.

Table 4 presents the results. We control for firm and year fixed effects in column (1), and industry (SIC 2-digit) and year fixed effects in column (2). In both models, the coefficient estimates on *Board_CEO_trust* are negative and significant. Economically, an increase in *Board_CEO_trust* by one standard deviation is associated with a 6.0% to 6.8% decrease in CEO delta. The coefficient estimates on the control variables show that *Log*(*sales*), *Tobin's Q*, and *Investment* are positively associated with CEO delta; *Leverage* and *Log*(*sigma*) are negatively associated with CEO delta; *CEO_duality* and *CEO_tenure* are positively associated with CEO delta; and firms with more board members have a lower CEO delta. *Cultural_distance*, *E-index*, and *Outside_director_ownership* are not significantly associated with CEO delta.

3.2. Board–CEO trust and CEO turnover–performance sensitivity

We run the following logit regression to examine the relation between board–CEO trust and TPS:

$$CEO\_turnover=\alpha+\beta_1 Performance+\beta_2 High\_trust\times Performance+\beta_3 High\_trust+\beta_k Controls+FE+\varepsilon. \quad (4)$$

For departing CEOs, we compute *Performance* for the period beginning two years (730 calendar days) before the actual departure date or the date they became CEO, whichever is later, and ending on the day before the departure date. For non-departing CEOs, *Performance* is measured beginning two years before the current fiscal year-end date or the date they became CEO, whichever is later, and ends on the fiscal year-end date. *High_trust* is a dummy variable equal to 1 if *Board_CEO_trust* is above the sample median, and 0 otherwise. For departing CEOs, we construct a *High_trust* dummy for the board directors in the period before the CEO's departure. For non-departing CEOs, we construct a *High_trust* dummy for the board

directors elected during the fiscal year. The control variables include CEO-, board- and firm-level variables in addition to year and firm fixed effects. We expect β_2 to be positive. When *Board_CEO_trust* is high, *CEO_turnover* should be less sensitive to *Performance*. In other words, poorly performing CEOs should be less likely to be replaced.

Table 5 presents the results. As shown in column (1), the coefficient estimate on *Performance* is significantly negative, indicating that CEOs of firms performing well (poorly) are less (more) likely to be replaced. Consistent with our prediction, the coefficient estimate on the interaction between *High_trust* dummy and *Performance* is significant and positive, suggesting that CEOs with highly trusting boards are less likely to be replaced following poor performance. In terms of the controls, *CEO_duality*, *CEO_tenure*, and *Board_size* are positively associated with *CEO_turnover*, while firm size is negatively associated with *CEO_turnover*.

Column (2) adds interactions between the control variables and *Performance*. We find that the estimate on the interaction between *CEO_duality* and *Performance* is positive, indicating that the turnover of CEO–chairs is less sensitive to their performance. The coefficient estimate on the interaction between *High_trust* and *Performance* remains positive and significant.

In columns (3) and (4), we repeat the tests in columns (1) and (2) after dropping firm fixed effects. We find the coefficient estimates on the interaction between *High_trust* and *Performance* are significant and positive in both columns.

3.3. Board–CEO trust and directors' board meeting attendance

Next, we test the association between board–CEO trust and directors' board meeting attendance, which is a proxy commonly used for board effort (e.g., Adams and Ferreira, 2008, 2009; Li and Srinivasan, 2011). Board meetings are major opportunities for directors and CEOs to exchange information and make strategic decisions, and for the directors to monitor the CEO. Low board meeting attendance can be both the cause and the result of reduced monitoring: directors may choose not to monitor and thus not to attend meetings, or they may fail to attend meetings and thus fail to monitor effectively. In addition, high-trust boards may

not require the same levels of attendance as low-trust boards, because trust can substitute for board monitoring.

We conduct a logit regression of the *Attendance_problem* dummy on *Board_CEO_trust* and the control variables. In addition to *Cultural_distance*, we control for firm size and various characteristics associated with board meeting attendance, such as board size, average director age, outside directorships, board meeting fees, the number of board meetings, and the proportions of independent, female, and retired directors.

Table 6 presents the results. Note that the sample period is 1996 to 2017 in columns (1) and (2), but 1996 to 2006 in columns (3) and (4), because data on the number of board meetings and board meeting fees are not available in ExecuComp after 2006. In columns (1) and (3) we control for both firm and year fixed effects, while in columns (2) and (4) we control for only year fixed effects.

In column (1), the coefficient estimate on *Board_CEO_trust* is positive but insignificant. In column (2), the coefficient estimate is positive and marginally significant at the 10% level. The lack of significant results is likely caused by a decrease in the board attendance problem during our sample period due to the adoption of the Sarbanes–Oxley Act (SOX) in 2002, which strengthened boards' due diligence. The average *Attendance_problem* in our sample is 0.15 prior to 2002, but drops to 0.05 in the post-SOX period. Consistent with this observation, in columns (3) and (4) where we use the 1996 to 2006 sample period, we find significantly positive coefficient estimates on *Board_CEO_trust*. These results suggest that when directors trust their CEOs more, they are more likely to be absent from board meetings. Directors of large boards or with other directorships are also more likely to be absent from board meetings. The other control variables are either insignificant or have mixed results, depending on the specification.

4. Board–CEO trust and M&A performance

High board–CEO trust is associated with low board monitoring either because it substitutes for monitoring (the positive view) or because it induces less effective monitoring (the negative view). These two views have different implications for board effectiveness and in turn firm performance. In this section,

we distinguish between these two views by examining the relationship between board–CEO trust and M&A performance.

4.1. 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 the acquiring companies not be involved in any other acquisitions during the year prior to the deal announcement. Lastly, we exclude deals whose transaction value is less than 1% of the acquirer's market capitalization. Our final sample comprises 2,865 deals. Table 7 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 of the variables are defined in Appendix A. Our main dependent variable is the cumulative abnormal return of the acquirer during the three 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 use *EBIT/assets* and *Net_income/assets* to measure the operating performance of the acquiring company. *EBIT/assets* (*Net_income/assets*) is the acquirer's earnings before interest and taxes (net income) divided by total assets. We measure the percentage change in operating performance by comparing the acquirer's operating performance two (or three) years after the M&A deal is completed with its operating performance in the deal completion year. Acquirers' operating performance is typically poorer after a merger, with the change in operating performance ranging from -1.04% to -0.64% depending on the measure used. *Deal_withdrawal* is a dummy variable equal to 1 if the deal is withdrawn and 0 otherwise. Only 5% of the M&As are withdrawn deals.

We control for several variables that are known to affect acquirer announcement returns. *Public_target* is an indicator equal to 1 if the target firm is publicly listed before the acquisition and 0 otherwise. In our

sample, 27% of targets are public. Deal value is the value of the transaction in millions of U.S. dollars (USD). Acquirer market value (MV) is the acquiring company's market capitalization six 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 pre-tax income divided by the total assets of the acquirer one year before the deal announcement. The sample mean (median) *ROA* is 7.5% (6.9%). *Tobin's Q* is the acquirer's market value of equity plus 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) *Tobin's 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 equal to 1 if the acquirer and the target have different two-digit SIC codes and 0 otherwise (*Cross_industry*); a dummy variable equal to 1 for friendly deals and 0 otherwise (*Friendly_deal*); and a dummy variable equal to 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 the deals, the acquirer and target have different two-digit SIC codes. Finally, only 25 deals (1%) are hostile, and 71 deals (2%) involve competing bidders.

4.2. Board–CEO trust and acquirer announcement returns

In Table 8, 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 has no effect on the acquirer's announcement return. We control for *Cultural_distance*, acquirer characteristics such as acquirer size, *ROA*, and *Tobin's Q*, and deal characteristics such as deal size, payment methods, and deal type dummies. We also include announcement year fixed effects. Standard errors are clustered by acquirers because a given acquirer often makes several acquisitions. Withdrawn deals are excluded from the analysis.

We find that the coefficient estimate on *Board_CEO_trust* in column (1) is negative and statistically significant at the 1% level. The magnitude of the coefficient estimate is large: a one standard deviation increase in *Board_CEO_trust* is associated with a 0.48% 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 the two-way measure of board–CEO trust is highly correlated with our primary measure of board trust in the CEO, and 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, Daminelli, and Fracassi (2015), who find lower combined announcement returns for both acquirers and targets when they are culturally distant, and with Lim, Makhija, and Shenkar (2016), who find a negative relationship 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, Sapienza, and Zingales, 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 non-negative market reactions, as a high level of trust is associated with a lower level of 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), we repeat the analysis in column (1) after limiting attention to independent directors only in calculating *Board_CEO_trust*. We find that the coefficient estimate on *Board_CEO_trust* remains significantly negative. The magnitude and significance of the estimate are remarkably similar to those using all board 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.

In column (3), 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 the M&A 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.

4.3. Robustness tests

In Table 9, we conduct various robustness tests of the association between acquirer announcement returns and board–CEO trust. First, recall that a given family name can often be traced back to several countries. In computing our trust measure, the frequency of passengers with a family name and the ancestral background of a country on Ancestry.com together establish the probability of the country's being the origin of the family name. As a robustness test, we use alternative methods to identify the country of origin of a family name. In column (1), we use the mode country; that is, the country with the highest frequency on Ancestry.com. In column (2), we follow Giannetti and Zhao (2019) and assign equal weights to the top three countries with the highest frequencies for the family name. The estimates on *Board_CEO_trust* using these alternative approaches are similar to those using our main trust measure in column (1) of Table 8 in terms of both magnitude and significance. In unreported test, we also use a frequency-weighted measure based on all of the countries that appear on Ancestry.com for each family name. We find that the result remains unchanged. In another unreported test, we exclude female CEOs because their family names may be different from their maiden names. The result again remains unchanged.

Second, while the Eurobarometer survey is distributed to interviewees from 16 EU countries to monitor the sentiments of Europeans with respect to EU integration, some surveys are also directed at citizens of non-EU countries. In column (3), we focus on bilateral trust among the 16 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. The sample size drops from 2,730 to 2,526, but the coefficient estimate on *Board_CEO_trust* remains negative and significant at the 5% level.

Third, Table 1 shows that the U.K. accounts for around 40% of the ancestral backgrounds of CEOs and directors. To examine whether our results are driven by U.K. CEO/directors, in column (4), we remove

CEO/directors with U.K.-originated last names and repeat our tests. The sample size drops to 1,457 observations, but the coefficient on *Board_CEO_trust* remains negative and significant at the 1% level. The results indicate that our main findings are not driven by CEO/directors with U.K. ancestry.

In column (5), 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 the adoption of SOX in 2002. *Post_SOX* is equal to 1 for M&A deals announced between 2003 and 2017 and 0 for deals announced between 1996 and 2002. We do not include the stand-alone *Post_SOX* dummy because we control for announcement year fixed effects. We find that the coefficient estimate on the interaction term is positive and statistically insignificant, which indicates that there is no significant change in the association between *CAR* and *Board_CEO_trust* after the adoption of SOX.

In columns (6) and (7), we use announcement returns based on alternative event windows. We use 7-day announcement returns, *CAR* (−3, +3), and 11-day announcement returns, *CAR* (−5, +5), respectively, as the dependent variable. We find significantly negative effects of board–CEO trust on these alternative announcement returns.

In Table 10, we include additional control variables in our regression analyses. In column (1), we control for social ties between the CEO and directors to see whether our measure of board–CEO trust captures social connections. Following Schmidt (2015), we construct a dummy variable *Social_tie* that is equal to 1 if the CEO is socially connected with one or more directors. Social connections are identified using director profile information from BoardEx. The CEO and director are considered socially connected if they are in the same non-business organizations or if they attended the same school at the same time (Cohen, Frazzini, and Malloy, 2008). In our sample of M&As, 24% of CEOs of acquiring companies are socially connected with their companies' board members. This figure is very close to the 24.8% reported by Schmidt (2015) for his M&A sample. We find that the coefficient estimate on social ties is negative but statistically insignificant. The coefficient estimate on *Board_CEO_trust*, however, remains negative and statistically significant at the 1% level.

In column (2), we add two control variables that capture the acquirer's governance strength. The concern is that our measure of board–CEO trust could proxy for the characteristic of boards captured by entrenched CEOs. For example, an entrenched CEO who can influence the selection of board directors might prefer to appoint a director with the same ethnic background, in which case board–CEO trust will be high. Subsequent poor acquisition decisions by this CEO could then lead to a negative association between trust and announcement returns. To capture a firm's governance strength, we use board co-option and the E-index. Coles, Daniel, and Naveen (2014) find that as board co-option increases, board monitoring decreases. We find that the coefficient estimates on *Board_co-option* and *E-index* are both insignificant, whereas that on *Board_CEO_trust* is unchanged.

In column (3), we control for additional cultural variables that may affect board–CEO trust: *Religious_similarity*, *Language_similarity*, and *Ancestral_diversity*. To capture religious similarity between the CEO and board members, we first estimate the probability that a director has the same religion as the CEO, based on the ancestry information of their last names. We then set *Religious_similarity* to the average probability of all directors on the board. We construct *Language_similarity* analogously. In our sample, the average probability that a director has the same religion or speaks the same language as the CEO is 50% and 38%, respectively. We also control for ancestral diversity among board members. Following Giannetti and Zhao (2019), we compute *Ancestral_diversity* as

$$1 - \sum_{i=1}^{N} s_{i,f,t}^2, \tag{5}$$

where $s_{i,f,t}$ is the share of board members of ancestry i among all board members (including the CEO) of firm f at time t. This measure captures the probability that two randomly selected directors have different countries of origin. The average ancestral diversity in our sample is 0.3. Giannetti and Zhao (2019) show that firms with greater ancestral diversity make less predictable decisions. The coefficient estimates on the three additional cultural variables are all positive, but only that on *Language_similarity* is statistically significant. Interestingly, the coefficient estimate on *Cultural_distance* becomes insignificant when these

additional cultural variables are included in the analysis. The coefficient estimate on *Board_CEO_trust* remains significant.

In column (4), we control for a *Family_firm* dummy equal to 1 for family firms and 0 otherwise. The family firm data come from Ron Anderson's website.[12] The data cover 2,000 firms from 2001 to 2010. For each deal in our sample, we match the acquirer with its family firm information in the closest year with available data. The sample size decreases to 1,692 due to missing family firm identification. In this sample, 24% of acquirers are family firms. The coefficient estimate on *Family_firm* is positive but statistically insignificant. The coefficient estimate on *Board_CEO_trust* remains negative, albeit weaker in significance and magnitude.

4.4. Board–CEO trust and acquirers' post-deal operating performance

We next test whether the negative market reactions to deal announcements by acquirers with high board–CEO trust reflect market expectations of declines in their future operating performance. We repeat the analysis in column (1) of Table 8 using acquirers' post-deal operating performance as the dependent variable.

Table 11 presents the results. To measure post-deal operating performance, we use the differences in acquirers' *EBIT/assets* and *Net_income/assets* from the deal completion year to two and three years afterward. All of the coefficient estimates on *Board_CEO_trust* are significantly negative, except that in column (3). The effect of board–CEO trust on operating performance is economically significant: a one standard deviation increase in *Board_CEO_trust* is associated with a 0.41% (0.46%) drop in acquirer *EBIT/assets* (*Net_income/assets*) three years after deal completion. In comparison, the average acquiring firm's *EBIT/assets* (*Net_income/assets*) is 8.23% (3.81%) in the year of deal completion. Turning to the control variables, the acquirer's post-deal operating performance is positively associated with deal size but

[12] See http://www.ronandersonprofessionalpage.net/data-sets.html

negatively associated with the acquirer's Tobin's Q.[13] The coefficient estimates on the other control variables are not significant. In summary, the results in Table 11 are consistent with the view that negative market reactions to M&A deals conducted by high-trust boards reflect market expectations of a decline in the acquirer's future performance.

4.5. 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 investment. 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:

$$Deal\_withdrawal=\alpha+\beta_1 Board\_CEO\_trust+\beta_2 Low\_CAR$$
$$+\beta_3 Board\_CEO\_trust\times Low\_CAR+\beta_k Controls+FE+\varepsilon, \quad (6)$$

where the dependent variable is *Deal_withdrawal*, a dummy variable equal to 1 if the deal is withdrawn and 0 otherwise, and *Low_CAR* is a dummy variable equal to 1 if *CAR* is below the sample median and 0 otherwise. The main variable of the 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 12 presents 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 when receiving unfavorable market feedback to deal announcements, acquirers with high board–CEO trust are less likely to withdraw their deals. 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, while it is

[13] Earlier studies suggest that high Q firms are associated with better acquisition performance (Lang, Stulz, and Walkling, 1989; Servaes, 1991), but more recent studies find insignificant or negative associations between announcement return and Q (Deng, Kang, and Low, 2013; Field and Mkrtchyan, 2017; Lin, Officer, and Shen, 2018).

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 aspects of board culture, such as the cultural distance between the board and the CEO. The coefficient on *Board_CEO_trust* × *Low_CAR* remains significantly negative.

4.6. Placebo test

Our main measure of *Board_CEO_trust* is constructed using directors' and CEOs' ancestral countries and the bilateral trust scores derived from the Eurobarometer survey results. Because the trust scores are at the country-pair level, they may capture characteristics of country-pairs other than trust. Moreover, *Board_CEO_trust* is measured with noise, which may bias the regression results. To address these concerns, we conduct a placebo test.

Specifically, we randomly shuffle the bilateral trust matrix in Appendix B and use the reshuffled matrix to construct a pseudo-measure of board–CEO trust, which we denote by *Pseudo_Board_CEO_trust*. We then replace *Board_CEO_trust* with *Pseudo_Board_CEO_trust* and repeat the regression analyses in column (1) of Table 8 (M&A announcement returns), column (2) of Table 11 (M&A operating performance), and column (1) of Table 12 (deal withdrawal probability). We repeat this procedure 1,000 times and report the distribution of the coefficients on the key independent variables. We also report the estimates based on the actual trust scores (*Board_CEO_trust*) for comparison. If the effect of trust on M&A performance is driven by unknown characteristics in a country-pair or simply by noise, we should obtain a significant trust effect even with the pseudo trust measure.

Table 13 presents the placebo test results. When we use *CAR* as the dependent variable, the distribution of the estimates on *Pseudo_Board_CEO_trust* shows that the mean is -0.002. This magnitude is much smaller than that based on the actual trust scores. The estimate corresponding to the first percentile from the simulated distribution is -0.246, indicating that we can easily reject the null hypothesis of no relationship between board–CEO trust and merger announcement returns at the 1% level. A similar result is obtained when we use the change in *EBIT/assets* as the dependent variable. The mean of the estimates from the

simulated regressions is substantially smaller than the actual estimate. The estimate corresponding to the first percentile is -0.274, whereas the estimate using the actual trust scores is -0.410. In terms of deal withdrawal probability, the *p*-value associated with the estimate on *Board_CEO_trust* × *Low_CAR* is 0.052 when evaluated against the simulated distribution of the estimates on *Pseudo_Board_CEO_trust* × *Low_CAR*.

In summary, the placebo test results suggest that the effects of board–CEO trust on merger announcement returns, post-deal operating performance, and deal withdrawal probability are not likely to be caused by noise or by the bilateral trust scores' capturing unknown characteristics at the country-pair level.

5. 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."[14] 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 reduced monitoring and in turn inefficient M&A decisions. Using a sample of 27,186 firm-year observations for S&P 1500 firms between 1996 and 2017, we show that high board–CEO trust is negatively associated with CEO pay–performance sensitivity, CEO turnover–performance sensitivity, and directors' board meeting attendance. We then show that high board trust results in poor M&A performance for the acquirers.

Major corporate scandals such as that surrounding Enron in the early 2000s and the financial crisis of 2008 have raised serious concerns about the role of corporate board governance. Because of legislation such as the Sarbanes–Oxley Act and increased public attention to board governance, board members have

[14] "Seeing is believing," *Economist*, August 25, 2016.

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.[15] While a lack of trust cannot be good for board dynamics, our findings suggest that board trust can be too much of a good thing.

[15] https://dealbook.nytimes.com/2013/11/11/the-case-against-too-much-independence-on-the-board/.

Appendix A. Variable definitions

Variable	Definition
	Trust and other cultural variables of board
$Trust_{i,j}$	Trust of Director *i* in Director *j*, calculated as $Trust_{i,j} = \sum_{C1=1}^{3} \sum_{C2=1}^{3} P_{i,C1} P_{j,C2} BT_{C1,C2}$, where *C1* (*C2*) represents the three most frequent countries of origin associated with Director *i*'s (*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* (*j*). $BT_{C1,C2}$ 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 $Trust_{i,CEO}$ for all of the directors on the board: $Board\_CEO\_trust = \sum_{i=1}^{N} Trust_{i,CEO}/N$. *Board_CEO_trust* is standardized to have zero mean and unit variance.
High_trust	Dummy variable equal to 1 if *Board_CEO_trust* is above the sample median, and 0 otherwise.
Within_board_trust	Trust among board members, calculated as the average of $Trust_{Dir\ i,Dir\ j}$ for all directors on board (excluding the CEO). *Within_board_trust* is standardized to have zero mean and unit variance.
Cultural_distance	The average of the cultural distance between each director and the CEO. Cultural distance is calculated as: $Cultural\ distance_{i,j} = \sqrt{\sum_{k=1}^{4} (I_{k,i} - I_{k,j})^2 / V_k}$, where $I_{k,i}$ ($I_{k,j}$) is director *i*'s (*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.
Social_tie	Dummy variable equal to 1 if at least one of the board members is socially connected with the CEO, and 0 otherwise. The board member and the CEO are considered socially connected if they are in the same non-business organizations or attended the same school at the same time.
Religious_similarity	The average of each director's probability of having the same religion as the CEO based on the ancestry information of their last names.
Language_similarity	The average of each director's probability of speaking the same language as the CEO based on the ancestry information of their last names.
Ancestral_diversity	The ancestral diversity of the board, computed as $1 - \sum_{i=1}^{N} s_{i,f,t}^2$, where $s_{i,f,t}$ is the share of board members of ancestry *i* among all board members (including CEO) of firm *f* at time *t*. This measure captures the probability that two randomly selected directors have different countries of origin.
	Board monitoring proxy variables
Log(*delta*)	The logarithm of 1 plus the expected dollar change ($000) in CEO wealth for a 1% change in firm stock price.
CEO_turnover	Dummy variable equal to 1 if the CEO departs during the fiscal year, and 0 otherwise.

Attendance_problem	Dummy variable equal to 1 if one or more directors miss more than 25% of the board meetings, and 0 otherwise.
	CEO characteristics variables
CEO_duality	Dummy variable equal to 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 characteristics variables
Board_size	Total number of directors on board.
Board_independence	Number of independent directors divided by board size.
Board_co-option	Number of directors appointed after the CEO took office, divided by the total number of directors.
Outside_director_ownership	Total number of shares owned by outside directors, divided by the number of shares outstanding (available from 1998).
Female_director	Number of female directors divided by board size.
Director_age	The average of directors' ages.
Number_of_directorships	The average of directors' number of outside directorships.
Retire_directors	Number of retired directors divided by board size. Retired directors are those with the word "retired" in their title, or who are aged over 70.
Meeting_fee	The average of directors' board meeting fee (in $000, available before 2006).
Number_of_board_meetings	Number of board meetings (available before 2006).
	Firm characteristics variables
Log(*sales*)	The logarithm of 1 plus total sales.
Stock_return	Stock return during the fiscal year minus CRSP value-weighted return.
Performance	Stock return of the firm minus CRSP value-weighted return. For departing CEOs, it is measured for the period beginning 730 calendar days before the actual departure date, or the date of CEO appointment, whichever is later, and ends on the day before the departure date. For non-departing CEOs, it is measured for the period beginning 730 calendar days before the current fiscal year-end date, or the date of CEO appointment, whichever is later, and ends at the fiscal year-end date.
Tobin's Q	Total liabilities plus market value of equity at the 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.
Log(*sigma*)	The logarithm of the standard deviation of market- and industry-adjusted weekly stock returns.
E-index	Entrenchment index, measured as the number of anti-takeover provisions made by the firm, as defined by Bebchuk, Cohen, and Ferrell (2009).
	M&A outcome variables

CAR	Three-day (−1, +1) cumulative abnormal announcement returns of acquiring companies. Cumulative abnormal returns are estimated using the market model with the return data for 200 trading days ending 10 days before the announcement date.
EBIT/assets (*year* +3)	Acquirer's earnings before interest and tax divided by total assets three 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 three years after deal completion, minus the value in the deal completion year. *Net_income/assets* (*year* +2) is calculated analogously.
Deal_withdrawal	Dummy variable equal to 1 if the deal is withdrawn, and 0 otherwise.
	M&A control variables
Public_target	Dummy variable equal to 1 if the target firm is a publicly listed company, and 0 otherwise.
Log(*deal value*)	The logarithm of the value of the transaction.
Log(*MV*)	The logarithm of the market value of the acquirer six days prior to the deal announcement.
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 equal to 1 if the acquirer and the target have different two-digit SIC codes, and 0 otherwise.
Friendly_deal	Dummy variable equal to 1 for friendly deals, and 0 otherwise.
Competing_deal	Dummy variable equal to 1 if there are competing bidders, and 0 otherwise.
Low_CAR	Dummy variable equal to 1 if the acquirer's announcement return is below sample median, and 0 otherwise.
Family_firm	Dummy variable equal to 1 for family firms and 0 otherwise.

Appendix B. Country-pair bilateral trust matrix

This table presents the average bilateral trust scores of country-pairs, calculated using Eurobarometer survey results. Survey interviewees from 16 European Union countries were asked the following: "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." We assign a score of 1 for the answer "no trust at all," 2 for "not very much trust," 3 for "some trust," and 4 for "a lot of trust."

		Trust from															
Trust in		AUT	BEL	DNK	FIN	FRA	DEU	GRC	IRL	ITA	LUX	NLD	NOR	PRT	ESP	SWE	GBR	Avg.
Austria	AUT	3.56	2.83	3.22	3.29	2.70	2.98	2.32	2.93	2.66	2.95	2.90	-	2.13	2.65	3.53	2.89	2.90
Belgium	BEL	2.95	3.28	3.18	3.07	3.07	2.84	2.60	2.93	2.64	2.82	3.18	3.18	2.66	2.73	3.23	2.91	2.95
Bulgaria	BGR	-	2.46	2.70	-	2.49	2.16	2.05	2.60	2.32	2.39	2.70	-	2.47	2.15	-	2.56	2.42
China	CHN	-	1.88	2.60	-	2.05	1.94	2.45	2.20	2.14	2.07	2.03	-	2.34	2.42	-	2.34	2.21
Czech Republic	CZE	2.05	2.40	2.71	2.64	2.44	2.10	2.39	2.59	2.34	2.36	2.73	-	2.17	2.27	2.88	2.66	2.45
Denmark	DNK	2.95	3.01	3.39	3.30	2.96	2.97	2.56	2.99	2.70	2.86	3.29	3.53	2.66	2.73	3.57	3.13	3.04
Finland	FIN	2.94	2.92	3.20	3.69	2.91	2.85	2.42	2.92	2.78	2.94	3.25	-	2.18	2.71	3.49	2.98	2.95
France	FRA	2.62	2.92	2.86	2.92	3.18	2.85	2.78	2.81	2.66	2.83	2.72	2.93	2.91	2.37	3.04	2.32	2.80
Germany	DEU	3.09	2.75	3.12	2.89	2.74	3.50	2.31	2.78	2.63	2.76	2.84	2.99	2.54	2.66	3.13	2.62	2.83
Greece	GRC	2.52	2.45	2.61	2.68	2.53	2.51	3.21	2.50	2.40	2.53	2.59	2.52	2.41	2.47	2.88	2.54	2.58
Hungary	HUN	2.31	2.47	2.75	2.87	2.53	2.33	2.37	2.67	2.38	2.38	2.74	-	2.18	2.22	2.87	2.68	2.52
Ireland	IRL	2.55	2.75	3.02	2.92	2.72	2.59	2.55	3.33	2.37	2.55	2.80	3.01	2.51	2.57	3.26	2.61	2.76
Italy	ITA	2.43	2.40	2.53	2.51	2.43	2.36	2.33	2.65	2.80	2.54	2.35	2.65	2.55	2.61	2.81	2.51	2.53
Japan	JPN	2.49	2.44	2.92	3.05	2.28	2.69	2.60	2.61	2.86	2.54	2.72	3.09	2.42	2.55	3.19	2.48	2.68
Luxembourg	LUX	3.07	3.30	3.23	3.06	3.09	2.99	2.56	2.96	2.62	3.46	3.29	3.20	2.71	2.71	3.31	2.96	3.03
Netherlands	NLD	2.95	2.90	3.33	3.14	2.94	2.90	2.55	3.00	2.77	2.97	3.28	3.26	2.70	2.85	3.33	3.16	3.00
Norway	NOR	3.00	2.91	3.50	3.48	2.97	2.92	2.40	2.93	2.78	2.91	3.30	-	2.22	2.79	3.65	3.06	2.99
Poland	POL	2.07	2.50	2.76	2.59	2.56	1.94	2.35	2.74	2.43	2.38	2.77	-	2.21	2.32	2.69	2.83	2.48
Portugal	PRT	2.50	2.53	2.67	2.67	2.59	2.48	2.60	2.65	2.32	2.56	2.74	2.60	3.29	2.51	2.97	2.74	2.65
Romania	ROU	-	2.52	2.65	-	2.49	2.07	2.38	2.56	2.44	2.37	2.70	-	2.46	2.23	-	2.59	2.46
Russia	RUS	1.76	2.01	2.32	1.90	2.03	1.93	2.38	2.10	2.16	2.00	2.20	2.52	2.13	2.29	2.45	2.17	2.15
Slovenia	SVN	1.98	2.17	2.51	2.53	2.22	1.80	2.27	2.52	2.10	2.06	2.43	-	1.79	2.27	2.79	2.49	2.26
Spain	ESP	2.58	2.59	2.66	2.61	2.68	2.66	2.71	2.64	2.64	2.65	2.64	2.56	2.59	3.32	2.86	2.47	2.68
Sweden	SWE	3.05	2.99	3.41	3.35	2.99	2.99	2.51	2.92	2.89	2.98	3.34	-	2.24	2.84	3.59	3.03	3.01
Switzerland	CHE	3.24	3.16	3.28	3.37	3.03	3.25	2.89	3.05	2.85	3.09	3.26	-	2.79	2.79	3.50	3.18	3.12
Turkey	TUR	1.78	1.90	2.27	2.13	1.95	2.05	1.33	2.16	1.74	1.98	2.31	-	2.05	1.96	2.39	2.17	2.01
U.K.	GBR	2.61	2.84	3.22	3.18	2.55	2.69	2.34	2.81	2.51	2.58	3.00	3.27	2.66	2.31	3.43	3.29	2.83
	Avg.	2.63	2.64	2.91	2.91	2.63	2.57	2.45	2.72	2.52	2.61	2.82	2.95	2.44	2.53	3.12	2.72	

References

Adams, R., Ferreira, D., 2007. A theory of friendly boards. Journal of Finance 62, 217-250.

Adams, R., Ferreira, D., 2008. Do directors perform for pay? Journal of Accounting and Economics 46, 154-171.

Adams, R., Ferreira, D., 2009. Women in the boardroom and their impact on governance and performance. Journal of Financial Economics 94, 291-309.

Adams, R., Hermalin, B., Weisbach, M., 2010. The role of boards of directors in corporate governance: A conceptual framework and survey. Journal of Economic Literature 48, 58-107.

Ahern, K., Daminelli, D., Fracassi, C., 2015. Lost in translation? The effect of cultural values on mergers around the world. Journal of Financial Economics 117, 165-189.

Algan, Y., Cahuc, P., 2010. Inherited trust and growth. American Economic Review 100, 2,060-2,092.

Armstrong, C., Guay, W., Weber, J., 2010. The role of information and financial reporting in corporate governance and debt contracting. Journal of Accounting and Economics 50, 179-234.

Arrow, K., 1972. Gifts and exchanges. Philosophy & Public Affairs 1, 343-362.

Baron, R., Vandello, J., Brunsman, B., 1996. The forgotten variable in conformity research: Impact of task importance on social influence. Journal of Personality and Social Psychology 71, 915-927.

Bebchuk, L., Cohen, A., Ferrell, A., 2009. What matters in corporate governance? Review of Financial Studies 22, 783-827.

Bottazzi, L., Da Rin, M., Hellmann, T., 2016. The importance of trust for investment: Evidence from venture capital. Review of Financial Studies 29, 2,283-2,318.

Brickley, J., Zimmerman, J., 2010. Corporate governance myths: Comments on Armstrong, Guay, and Weber. Journal of Accounting and Economics 50, 235-245.

Brockman, P., El Ghoul, S., Guedhami, O., Zheng, Y., 2020. Does social trust affect international contracting? Evidence from foreign bond covenants. Journal of International Business Studies, forthcoming.

Canet, A., 2016. Groupthink in the board room – the good, the bad, and the ugly. Working paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2839855.

Chami, R., Fullenkamp, C., 2002. Trust and efficiency. Journal of Banking & Finance 26, 1,785-1,809.

Chen, X., Harford, J., Li, K., 2007. Monitoring: Which institutions matter? Journal of Financial Economics 86, 279-305.

Cohen, L., Frazzini, A., Malloy, C., 2008. The small world of investing: Board connections and mutual fund returns. Journal of Political Economy 116, 951-979.

Coles, J., Daniel, N., Naveen, L., 2014. Co-opted boards. Review of Financial Studies 27, 1,751-1,796.

Core, J., Guay, W., 2002. Estimating the value of employee stock option portfolios and their sensitivities to price and volatility. Journal of Accounting Research 40, 613-630.

Cornelli, F., Kominek, Z., Ljungqvist, A., 2013. Monitoring managers: Does it matter? Journal of Finance 68, 431-481.

Deng, X., Kang, J., Low, B., 2013. Corporate social responsibility and stakeholder value maximization: Evidence from mergers. Journal of Financial Economics 110, 87-109.

Dirks, K., Ferrin, D., 2001. The role of trust in organizational settings. Organization Science 12, 450-467.

Durlauf, S., Fafchamps, M., 2006. Social capital. In: Aghion, P., Durlauf, S. (Eds.), Handbook of Economic Growth (Vol. 1A). North Holland, Amsterdam, pp. 1,639-1,699.

Faleye, O., 2007. Classified boards, firm value, and managerial entrenchment. Journal of Financial Economics 83, 501-529.

Ferri, F., Maber, D., 2013. Say on pay votes and CEO compensation: Evidence from the UK. Review of Finance 17, 527-563.

Field, L., Mkrtchyan, A., 2017. The effect of director experience on acquisition performance. Journal of Financial Economics 123, 488-511.

Fukuyama, F., 1995. Trust: The Social Virtues and the Creation of Prosperity. Free Press, New York.

Garrett, J., Hoitash, R., Prawitt, D., 2014. Trust and financial reporting quality. Journal of Accounting Research 52, 1,087-1,125.

Giannetti, M., Zhao, M., 2019. Board ancestral diversity and firm-performance volatility. Journal of Financial and Quantitative Analysis 54, 1,117-1,155.

Graham, J., Kim, H., Leary, M., 2020. CEO-board dynamics. Journal of Financial Economics, forthcoming.

Greenwald, A. G., Banaji, M. R., 1995. Implicit social cognition: Attitudes, self-esteem, and stereotypes. Psychological Review 102, 4-27.

Guiso, L., Sapienza, P., Zingales, L., 2006. Does culture affect economic outcomes? Journal of Economic Perspectives 20, 23-48.

Guiso, L., Sapienza, P., Zingales, L., 2008. Trusting the stock market. Journal of Finance 63, 2,557-2,600.

Guiso, L., Sapienza, P., Zingales, L., 2009. Cultural biases in economic exchange? Quarterly Journal of Economics 124, 1,095-1,131.

Hagendorff, J., Lim, S., Nguyen, D., 2019. Lender trust and bank loan contracts. Working paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3183155

Harris, M., Raviv, A., 2008. A theory of board control and size. Review of Financial Studies 21, 1,797-1,831.

Hartzell, J., Starks, L., 2003. Institutional investors and executive compensation. Journal of Finance 58, 2,351-2,374.

Hasan, I., Hoi, C., Wu, Q., Zhang, H., 2017a. Does social capital matter in corporate decisions? Evidence from corporate tax avoidance. Journal of Accounting Research 55, 629-668.

Hasan, I., Hoi, C., Wu, Q., Zhang, H., 2017b. Social capital and debt contracting: Evidence from bank loans and public bonds. Journal of Financial and Quantitative Analysis 52, 1017-1047.

Hermalin, B., 2005. Trends in corporate governance. Journal of Finance 60, 2,351-2,384.

Hilary, G., Huang, S., 2016. Trust and contracting. INSEAD Working Paper No. 2015/42/ACC, http://dx.doi.org/10.2139/ssrn.2604974

Hirshleifer, D., 2015. Behavioral finance. Annual Review of Financial Economics 7, 133-159.

Hofstede, G., 1984. Culture's Consequences: International Differences in Work-related Values. SAGE, Newbury Park, CA.

Huson, M., Parrino, R., Starks, L., 2001. Internal monitoring mechanisms and CEO turnover: A long-term perspective. Journal of Finance 56, 2,265-2,297.

Janis, I., 1982. Groupthink: Psychological Studies of Policy Decisions and Fiascoes. Cengage Learning, Boston.

Kanagaretnam, K., Lobo, G., Wang, C., Whalen, D., 2019. Cross-country evidence on the relationship between societal trust and risk-taking by banks. Journal of Financial and Quantitative Analysis 54, 275-301.

Kang, J., Shivdasani, A., 1995. Firm performance, corporate governance, and top executive turnover in Japan. Journal of Financial Economics 38, 29-58.

Kang, J., Shivdasani, A., 1997. Corporate restructuring during performance declines in Japan. Journal of Financial Economics 46, 29-65.

Kaplan, S., Minton, B., 2012. How has CEO turnover changed? International Review of Finance 12, 57-87.

Knack, S., Keefer, P., 1997. Does social capital have an economic payoff? A cross-country investigation. Quarterly Journal of Economics 112, 1,251-1,288.

Kogut, B., Singh, H., 1988. The effect of national culture on the choice of entry mode. Journal of International Business Studies 19, 411-432.

Kulchania, M., 2016. Cost structure and payout policy. Financial Management 45, 981-1,009.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1997. Trust in large organizations. American Economic Review 87, 333-338.

Lang, L., Stulz, R., Walkling, R., 1989. Managerial performance, Tobin's Q, and the gains from successful tender offers. Journal of Financial Economics 24, 137-154.

Langfred, C., 2004. Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. Academy of Management Journal 47, 385-399.

Li, F., Srinivasan, S., 2011. Corporate governance when founders are directors. Journal of Financial Economics 102, 454-469.

Lim, J., Makhija, A., Shenkar, O., 2016. The asymmetric relationship between national cultural distance and target premiums in cross-border M&A. Journal of Corporate Finance 41, 542-571.

Lin, C., Officer, M., Shen, B., 2018. Managerial risk-taking incentives and merger decisions. Journal of Financial and Quantitative Analysis 53, 643-680.

Liu, X., 2016. Corruption culture and corporate misconduct. Journal of Financial Economics 122, 307-327.

Lu, J., Song, Y., Shan, M., 2018. Social trust in subnational regions and foreign subsidiary performance: evidence from foreign investments in China. Journal of International Business Studies 49, 761-773.

Mateos, P., 2007. A review of name-based ethnicity classification methods and their potential in population studies. Population, Space and Place 13, 243-263.

O'Connor, M., 2003. The Enron board: the perils of groupthink. University of Cincinnati Law Review 71, 1,233-1,320.

Pan, Y., Siegel, S., Wang, T., 2017. Corporate risk culture. Journal of Financial and Quantitative Analysis 52, 2,327-2,367.

Pan, Y., Siegel, S., Wang, T., 2019. The cultural origin of CEOs' attitudes towards uncertainty: Evidence from corporate acquisitions. Review of Financial Studies 33, 2,977-3,030.

Putnam, R., Leonardi, R., Nanetti, R., 1993. Making Democracy Work: Civic Traditions in Modern Italy. Princeton University Press, Princeton, NJ.

Raheja, C., 2005. Determinants of board size and composition: A theory of corporate boards. Journal of Financial and Quantitative Analysis 40, 283-306.

Schmidt, B., 2015. Costs and benefits of friendly boards during mergers and acquisitions. Journal of Financial Economics 117, 424-447.

Servaes, H., 1991. Tobin's Q and gains from takeovers. Journal of Finance 46, 409-419.

Skinner, D., Dietz, G., Weibel, A., 2014. The dark side of trust: when trust becomes a 'poisoned chalice'. Organization 21, 206-224.

Stulz, R., Williamson, R., 2003. Culture, openness, and finance. Journal of Financial Economics 70, 313-349.

Villena, V. H., Revilla, E., Choi, T. Y., 2011. The dark side of buyer-supplier relationships: A social capital perspective. Journal of Operations Management 29, 561-576.

Xie, F., Zhang, B., Zhang, W., 2019. Trust, incomplete contracting, and corporate innovation. ECGI Finance Working Paper No. 607/2019, http://dx.doi.org/10.2139/ssrn.2982888

Zak, P., Knack, S., 2001. Trust and growth. The Economic Journal 111, 295-321.

Zahra, S. A., Yavuz, R. I., Ucbasaran, D., 2006. How much do you trust me? The dark side of relational trust in new business creation in established companies. Entrepreneurship Theory and Practice 30, 541-559.

Figure 1. Distribution of board–CEO trust
This figure plots the distribution of *Board_CEO_trust* before winsorization/standardization for S&P 1500 firms during the 1996 to 2017 period.

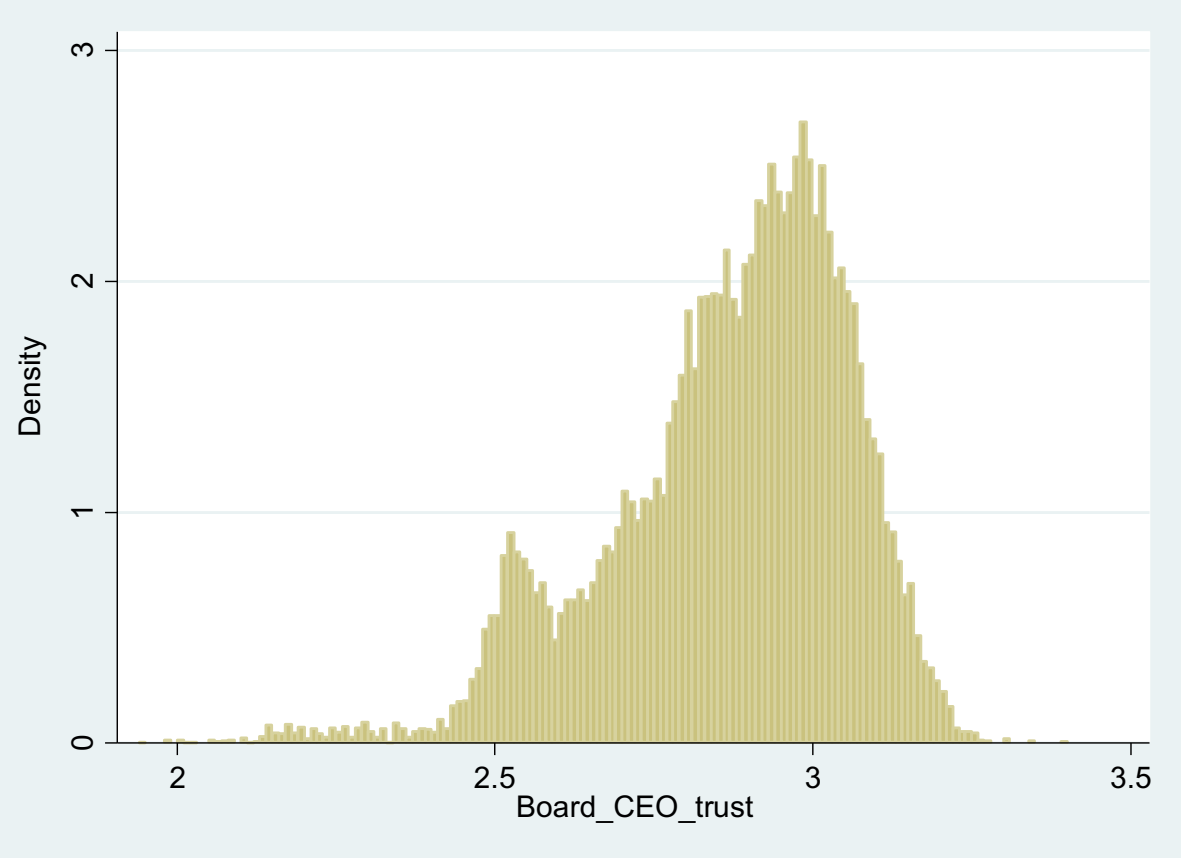

Table 1. Distribution of countries of origin inferred from director/CEO family names
This table presents the distribution of countries of origin inferred from the family names of directors and CEOs using Ancestry.com.

Variables	Unique director from ISS	Unique CEO from ExecuComp
Total number of obs. (A)	40,100	7,407
Obs. matched with Ancestry.com (B)	39,170	7,228
B/A (in percent)	97.68	97.58
By country (in percent)		
United Kingdom	41.26	39.83
Germany	13.97	14.19
Ireland	11.67	11.94
Italy	5.53	6.83
Israel	5.30	4.77
France	2.65	2.72
Scandinavia	2.00	2.06
Netherlands	1.79	1.81
Russia	1.72	1.64
Spain	1.40	1.22
Poland	1.21	1.31
China	1.05	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	4.85	4.67

Table 2. Descriptive statistics for the sample of S&P 1500 firms

This table 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. The variables are defined in Appendix A. *Board_CEO_trust*, *Cultural_distance*, 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
		Board monitoring measures		
Log(*delta*)	26,278	5.31	5.31	1.61
CEO_turnover	21,214	0.08	0.00	0.28
Attendance_problem	21,918	0.07	0.00	0.26
		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		
Cultural_distance	27,186	2.10	1.96	0.96
Board_independence	27,186	0.83	0.86	0.18
Board_size	27,186	8.42	8.00	2.67
Board_co-option	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
Director_age	27,185	61.39	61.56	4.39
Number_of_directorships	21,918	0.54	0.40	0.53
Retire_directors	21,918	0.29	0.25	0.25
Meeting_fee	9,258	1.15	1.00	1.39
Number_of_board_meetings	9,258	7.29	7.00	3.04
		Firm characteristics		
Log(*sales*)	27,181	7.51	7.39	1.52
Performance	21,214	0.10	0.01	0.76
Stock_return	27,178	0.03	-0.01	0.45
Log(*sigma*)	27,178	-3.38	-3.39	0.55
Tobin's 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
E-index	25,909	3.33	4.00	1.40

Table 3. Determinants of board–CEO trust

This table presents regression results regarding the determinants of board–CEO trust. The dependent variable is *Board_CEO_trust*. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the firm level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Log(*sales*)	0.019		0.010	0.002		-0.001
	(1.191)		(0.568)	(0.077)		(-0.030)
Tobin's Q	0.003		0.005	0.013		0.011
	(0.184)		(0.332)	(0.952)		(0.783)
Leverage	-0.067		-0.051	-0.012		-0.021
	(-0.692)		(-0.513)	(-0.130)		(-0.224)
Investment	0.057		0.026	0.041		0.027
	(0.302)		(0.133)	(0.318)		(0.203)
Stock_return	-0.022		-0.023	-0.011		-0.013
	(-1.338)		(-1.338)	(-1.015)		(-1.107)
Log(*sigma*)	-0.061*		-0.052	-0.028		-0.017
	(-1.716)		(-1.390)	(-1.120)		(-0.690)
E-index	-0.004		-0.006	-0.006		-0.008
	(-0.289)		(-0.380)	(-0.443)		(-0.589)
CEO_duality		-0.022	-0.018		0.002	0.010
		(-0.606)	(-0.467)		(0.071)	(0.310)
CEO_tenure		0.007**	0.007**		0.001	0.001
		(2.132)	(2.202)		(0.335)	(0.348)
CEO_ownership		-0.010**	-0.011**		-0.002	-0.003
		(-2.199)	(-2.468)		(-0.719)	(-0.975)
Board_independence		0.113	0.101		0.036	0.079
		(1.031)	(0.889)		(0.423)	(0.885)
Board_size		0.020***	0.018**		-0.001	-0.001
		(2.599)	(2.099)		(-0.183)	(-0.115)
Board_co-option		-0.048	-0.040		0.059	0.042
		(-0.784)	(-0.630)		(0.912)	(0.617)
Outside_director		-0.000	0.001		0.001	0.001
_ownership		(-0.105)	(0.457)		(0.384)	(0.299)
Female_director		-0.362**	-0.400**		0.007	-0.018
		(-2.100)	(-2.212)		(0.049)	(-0.121)
Director_age		-0.004	-0.003		0.002	0.003
		(-0.923)	(-0.563)		(0.492)	(0.597)
Adjusted R^2	0.052	0.054	0.058	0.675	0.693	0.685
Observations	20,157	20,252	18,840	19,875	19,977	18,568
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	No	No	No
Firm FE	No	No	No	Yes	Yes	Yes

Table 4. Effect of board–CEO trust on CEO pay–performance sensitivity

This table presents the results for the effect of board–CEO trust on CEO pay–performance sensitivity. The dependent variable is the logarithm of 1 plus CEO delta. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the firm level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)
Board_CEO_trust	-0.060***	-0.068***
	(-2.562)	(-3.370)
Cultural_distance	-0.028	-0.022
	(-1.077)	(-1.005)
Log(*sales*)	0.377***	0.535***
	(11.353)	(29.448)
Tobin's Q	0.372***	0.437***
	(19.136)	(23.029)
Investment	1.155***	1.662***
	(7.514)	(7.621)
Leverage	-0.714***	-0.656***
	(-6.976)	(-6.820)
Log(*sigma*)	-0.398***	-0.335***
	(-12.990)	(-9.216)
E-index	0.021	-0.003
	(1.321)	(-0.163)
CEO_duality	0.292***	0.339***
	(8.132)	(8.993)
CEO_tenure	0.058***	0.065***
	(17.761)	(19.469)
Board_independence	0.087	-0.297**
	(0.887)	(-2.539)
Board_size	-0.021***	-0.030***
	(-2.715)	(-3.605)
Outside_director_ownership	0.001	0.005
	(0.328)	(1.406)
Female_director	-0.122	-0.491***
	(-0.779)	(-3.047)
Adjusted R^2	0.788	0.558
Observations	18,050	18,332
Year FE	Yes	Yes
Industry FE	No	Yes
Firm FE	Yes	No

Table 5. Effect of board–CEO trust on CEO turnover–performance sensitivity
This table presents the results for the effect of board–CEO trust on CEO turnover–performance sensitivity. We use a logit regression model in which the dependent variable is a *CEO_turnover* dummy, equal to 1 if the CEO departs during the fiscal year and 0 otherwise. All of the variables are defined in Appendix A. Standard errors are adjusted for clustering at the firm level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)	(3)	(4)
Performance	-0.651***	-1.444***	-0.704***	-1.119**
	(-5.378)	(-2.914)	(-6.682)	(-2.550)
High_trust × *Performance*	0.408***	0.422***	0.452***	0.398***
	(2.665)	(2.668)	(2.983)	(2.910)
High_trust	-0.010	-0.012	-0.031	-0.037
	(-0.088)	(-0.104)	(-0.520)	(-0.619)
Cultural_distance	-0.100	-0.101	-0.020	-0.020
	(-1.206)	(-1.233)	(-0.628)	(-0.615)
CEO_duality $_t$	-0.106	-0.083	-0.167**	-0.138**
	(-0.805)	(-0.627)	(-2.575)	(-2.061)
CEO_tenure $_t$	0.218***	0.217***	0.012***	0.012***
	(9.463)	(9.468)	(2.678)	(2.596)
CEO_ownership $_t$	-0.026	-0.026	-0.048***	-0.047***
	(-1.362)	(-1.387)	(-2.828)	(-2.769)
Board_independence $_{t-1}$	-0.357	-0.342	0.303	0.323*
	(-0.853)	(-0.811)	(1.556)	(1.653)
Board_size $_{t-1}$	0.105***	0.105***	0.018	0.019
	(3.365)	(3.343)	(1.540)	(1.613)
Outside_director_ownership $_{t-1}$	0.011	0.010	0.015***	0.013**
	(0.932)	(0.883)	(2.950)	(2.418)
E-index $_{t-1}$	0.064	0.062	0.053**	0.050**
	(1.085)	(1.055)	(2.117)	(2.005)
Female_director $_{t-1}$	-0.152	-0.218	0.617**	0.587**
	(-0.273)	(-0.391)	(2.204)	(2.094)
Log(*sales*) $_t$	-0.202*	-0.201*	0.014	0.017
	(-1.694)	(-1.669)	(0.646)	(0.770)
Cultural_distance × *Performance*		0.043		0.039
		(0.500)		(0.598)
CEO_duality $_t$ × *Performance*		0.682***		0.743***
		(3.739)		(5.114)
CEO_tenure $_t$ × *Performance*		0.005		0.009
		(0.536)		(1.205)
CEO_ownership $_t$ × *Performance*		0.012		-0.004
		(0.385)		(-0.143)
Board_independence $_{t-1}$ × *Performance*		0.021		-0.357
		(0.054)		(-1.197)
Board_size $_{t-1}$ × *Performance*		-0.043		-0.026
		(-1.115)		(-0.923)

Outside_director_ownership $_{t-1}$ × *Performance*		-0.014 (-0.793)		-0.014 (-1.163)
E-index $_{t-1}$ × *Performance*		0.088 (1.553)		0.049 (1.126)
Female_director $_{t-1}$ × *Performance*		0.391 (0.632)		0.099 (0.181)
Log(*sales*) $_{t}$ × *Performance*		0.026 (0.384)		0.018 (0.373)
Pseudo R^2	0.125	0.131	0.019	0.024
Observations	9,869	9,869	16,390	16,390
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No

Table 6. Effect of board–CEO trust on board meeting attendance problem

This table presents the results for the effect of board–CEO trust on directors' board meeting attendance. We use a logit regression model in which the dependent variable is an *Attendance_problem* dummy, equal to 1 if one or more directors miss more than 25% of the board meetings and 0 otherwise. Columns (1) and (2) use the sample period of 1996 to 2017, while columns (3) and (4) use the reduced sample period of 1996 to 2006, as data on the number of board meetings and board meeting fees are not available in ExecuComp after 2006. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the firm level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)	(3)	(4)
Board_CEO_trust	0.023	0.082*	0.270**	0.158***
	(0.271)	(1.762)	(2.002)	(2.703)
Meeting_fee			-0.055	-0.142***
			(-0.450)	(-2.826)
Number_of_board_meetings			0.032	-0.030**
			(1.496)	(-1.993)
Cultural_distance	0.030	0.044	0.264**	0.087*
	(0.384)	(1.072)	(2.073)	(1.681)
Board_independence	-0.052	-0.285	0.143	-0.152
	(-0.178)	(-1.489)	(0.369)	(-0.693)
Director_age	-0.008	-0.029***	-0.003	-0.040***
	(-0.512)	(-2.875)	(-0.151)	(-3.220)
Female_director	-0.074	-0.597*	-1.287	-0.891**
	(-0.151)	(-1.851)	(-1.609)	(-1.970)
Board_size	0.228***	0.189***	0.229***	0.194***
	(9.204)	(13.657)	(6.213)	(11.977)
Number_of_directorships	0.138	0.084	0.487***	0.092
	(1.239)	(1.321)	(3.416)	(1.299)
Retire_directors	0.151	0.024	0.207	0.461
	(0.560)	(0.117)	(0.458)	(1.525)
Log(*sales*)	-0.209**	-0.046*	0.044	-0.026
	(-2.109)	(-1.706)	(0.259)	(-0.750)
Pseudo R^2	0.111	0.103	0.083	0.073
Observations	9,923	21,906	3,842	9,252
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No

Table 7. Descriptive statistics for the M&A sample

This table presents the descriptive statistics for the M&A sample. The sample 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. Merger and acquisition data come from SDC. The variables are defined in Appendix A. *Board_CEO_trust*, *Within_board_trust*, *Cultural_distance*, and ratio variables 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
EBIT/assets (*year* +3) (%)	2,254	-0.86	-0.27	5.67
EBIT/assets (*year* +2) (%)	2,467	-0.64	-0.07	5.19
Net_income/assets (*year* +3) (%)	2,261	-1.04	-0.13	8.61
Net_income/assets (*year* +2) (%)	2,474	-0.85	-0.01	8.10
Deal_withdrawal	2,865	0.05	0.00	0.21
		Trust		
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
		Control variables		
Cultural_distance	2,865	2.11	1.94	0.99
Cultural_distance (*independent*)	2,856	2.09	1.93	1.02
Public_target	2,865	0.27	0.00	0.44
Log(*deal value*)	2,865	5.36	5.29	1.72
Log(*MV*)	2,865	7.87	7.69	1.42
ROA (%)	2,865	7.53	6.93	8.34
Tobin's 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

Table 8. Effect of trust on acquirer announcement returns

This table presents the results for the effect of board–CEO trust on acquirer announcement returns. Withdrawn deals are excluded. The dependent variable is the acquirer's 3-day (−1, +1) cumulative abnormal return (%)around deal announcements. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)	(3)	(4)
Board_CEO_trust	-0.484***			
	(-3.073)			
Board_CEO_trust (*independent*)		-0.437***		
		(-2.784)		
Within_board_trust			-0.183	
			(-1.441)	
Within_board_trust (*independent*)				-0.200
				(-1.588)
Cultural_distance	-0.419***		-0.157	
	(-2.674)		(-1.201)	
Cultural_distance (*independent*)		-0.360**		-0.145
		(-2.407)		(-1.158)
Public_target	-1.417***	-1.397***	-1.394***	-1.361***
	(-3.849)	(-3.800)	(-3.789)	(-3.703)
Log(*deal value*)	0.252**	0.212*	0.238*	0.209*
	(1.981)	(1.680)	(1.874)	(1.661)
Log(*MV*)	-0.560***	-0.526***	-0.543***	-0.515***
	(-4.108)	(-3.874)	(-3.976)	(-3.793)
ROA	0.043**	0.045**	0.043**	0.044**
	(2.274)	(2.407)	(2.258)	(2.350)
Tobin's Q	-0.221	-0.220	-0.211	-0.217
	(-1.477)	(-1.481)	(-1.399)	(-1.447)
% Cash_payment	0.008***	0.008***	0.008***	0.008***
	(3.021)	(2.892)	(2.992)	(2.860)
% Stock_payment	-0.017***	-0.016***	-0.017***	-0.016***
	(-3.341)	(-3.084)	(-3.326)	(-3.158)
Cross_industry	-0.581**	-0.610***	-0.561**	-0.596**
	(-2.460)	(-2.596)	(-2.356)	(-2.518)
Friendly_deal	-1.158	-1.165	-1.075	-1.052
	(-0.691)	(-0.696)	(-0.589)	(-0.584)
Competing_deal	-0.532	-0.544	-0.457	-0.479
	(-0.559)	(-0.566)	(-0.470)	(-0.492)
Adjusted R^2	0.060	0.057	0.056	0.055
Observations	2,730	2,713	2,725	2,709
Year FE	Yes	Yes	Yes	Yes

Table 9. Robustness tests

This table presents the results of robustness tests of the effect of acquirer board–CEO trust on acquirer announcement returns. Withdrawn deals are excluded. Columns (1) and (2) use alternative methods to identify the countries of origin for family names, in which the most frequent country of origin and the equal-weighted average of the three most frequent countries are used to measure board–CEO trust and cultural distance, respectively. Column (3) uses bilateral trust among the 16 European Union countries only. Column (4) excludes from *Board_CEO_trust* and *Cultural_distance* those directors and CEOs with last names originated in the U.K. Column (5) examines the effect of board–CEO trust before and after the adoption of SOX in 2002. *Post_SOX* is a dummy variable equal to 1 for the M&A deals announced during the 2003 to 2017 period and 0 for deals announced during the 1996 to 2002 period. Columns (6) and (7) use *CAR* (−3, +3) and *CAR* (−5, +5) as the dependent variables, respectively. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1) Trust (mode)	(2) Trust (equal-weight)	(3) European Union countries only	(4) Excluding U.K. CEO/directors	(5) SOX	(6) *CAR* (−3, +3)	(7) *CAR* (−5, +5)
Board_CEO_trust	-0.536*** (-2.874)	-0.408** (-2.578)	-0.316** (-2.230)	-2.577*** (-3.280)	-0.550* (-1.688)	-0.494*** (-2.590)	-0.599*** (-2.734)
Board_CEO_trust × *Post_SOX*					0.080 (0.245)		
Cultural_distance	-0.435*** (-2.811)	-0.405** (-2.465)	-0.347** (-2.092)	-0.581*** (-3.395)	-0.419*** (-2.672)	-0.308 (-1.576)	-0.398* (-1.833)
Public_target	-1.592*** (-3.897)	-1.485*** (-3.776)	-1.360*** (-3.596)	-1.533*** (-3.278)	-1.419*** (-3.852)	-1.835*** (-4.461)	-1.476*** (-3.059)
Log(*deal value*)	0.302** (2.160)	0.239* (1.812)	0.223* (1.713)	0.221 (1.323)	0.251** (1.978)	0.450*** (3.014)	0.493*** (2.971)
Log(*MV*)	-0.586*** (-3.917)	-0.520*** (-3.622)	-0.526*** (-3.775)	-0.574*** (-3.230)	-0.560*** (-4.104)	-0.858*** (-5.259)	-1.076*** (-5.750)
ROA	0.036* (1.717)	0.047** (2.429)	0.052*** (2.622)	0.020 (0.791)	0.043** (2.275)	0.088*** (3.307)	0.099*** (3.222)
Tobin's Q	-0.160 (-0.967)	-0.234 (-1.466)	-0.269* (-1.738)	0.138 (0.661)	-0.221 (-1.485)	-0.565*** (-2.878)	-0.834*** (-3.881)
% Cash_payment	0.007** (2.442)	0.008*** (2.769)	0.007*** (2.713)	0.010*** (2.643)	0.008*** (3.030)	0.008** (2.249)	0.009** (2.232)
% Stock_payment	-0.018*** (-3.134)	-0.017*** (-3.119)	-0.019*** (-3.469)	-0.004 (-0.473)	-0.017*** (-3.333)	-0.009 (-1.407)	-0.009 (-1.210)

Cross_industry	-0.471* (-1.819)	-0.633** (-2.552)	-0.477* (-1.956)	-0.431 (-1.369)	-0.583** (-2.464)	-0.558* (-1.953)	-0.631* (-1.905)
Friendly_deal	-1.877 (-0.976)	-1.087 (-0.604)	-1.371 (-0.774)	-3.410** (-2.163)	-1.128 (-0.670)	-2.452 (-1.171)	-2.292 (-0.967)
Competing_deal	-0.473 (-0.441)	-0.533 (-0.508)	-1.111 (-1.322)	0.113 (0.070)	-0.526 (-0.554)	-0.461 (-0.399)	-0.978 (-0.535)
Adjusted R^2	0.057	0.059	0.063	0.049	0.059	0.051	0.047
Observations	2,331	2,499	2,526	1,457	2,730	2,730	2,730
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10. Additional controls

This table presents the results for the effect of acquirer board–CEO trust on acquirer announcement returns after including additional control variables. Withdrawn deals are excluded. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)	(3)	(4)
Board_CEO_trust	-0.483***	-0.494***	-0.705***	-0.331*
	(-3.049)	(-3.119)	(-3.488)	(-1.765)
Social_tie	-0.083			
	(-0.338)			
E-Index		0.008		
		(0.075)		
Board_co-option		0.372		
		(1.202)		
Religious_similarity			1.163	
			(1.098)	
Language_similarity			1.794**	
			(2.142)	
Ancestral_diversity			1.855	
			(1.415)	
Family_firm				0.377
				(0.999)
Cultural_distance	-0.418***	-0.438***	-0.165	-0.478**
	(-2.669)	(-2.788)	(-0.727)	(-2.435)
Public_target	-1.419***	-1.435***	-1.399***	-1.576***
	(-3.852)	(-3.857)	(-3.807)	(-3.324)
Log(*deal value*)	0.251**	0.232*	0.254**	0.322**
	(1.976)	(1.804)	(2.004)	(2.066)
Log(*MV*)	-0.553***	-0.548***	-0.574***	-0.667***
	(-4.021)	(-3.956)	(-4.180)	(-4.010)
ROA	0.043**	0.040**	0.043**	0.026
	(2.272)	(2.094)	(2.281)	(1.199)
Tobin's Q	-0.225	-0.201	-0.217	-0.109
	(-1.489)	(-1.328)	(-1.448)	(-0.621)
% Cash_payment	0.008***	0.008***	0.008***	0.008**
	(3.007)	(2.788)	(3.071)	(2.191)
% Stock_payment	-0.017***	-0.018***	-0.017***	-0.019**
	(-3.301)	(-3.322)	(-3.340)	(-2.321)
Cross_industry	-0.583**	-0.570**	-0.580**	-0.378
	(-2.466)	(-2.395)	(-2.453)	(-1.271)
Friendly_deal	-1.147	-1.256	-1.218	-1.529
	(-0.687)	(-0.731)	(-0.717)	(-0.842)
Competing_deal	-0.530	-0.473	-0.608	-1.434
	(-0.556)	(-0.495)	(-0.649)	(-1.516)
Adjusted R^2	0.059	0.058	0.061	0.061

Observations	2,730	2,681	2,730	1,692
Year FE	Yes	Yes	Yes	Yes

Table 11. Effect of acquirer board–CEO trust on acquirer post-deal operating performance

This table presents the results for the effect of acquirer board–CEO trust on acquirer post-deal operating performance. Withdrawn deals are excluded. The dependent variable is the acquirer's operating performance two/three 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) and *Net_income/assets* in columns (3) and (4). The variables are defined in Appendix A. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)	(3)	(4)
	EBIT/assets (%)		*Net_income/assets* (%)	
	Year +2	Year +3	Year +2	Year +3
Board_CEO_trust	-0.246*	-0.410***	-0.212	-0.458**
	(-1.886)	(-2.756)	(-0.968)	(-1.964)
Cultural_distance	-0.025	-0.189	-0.155	-0.286
	(-0.198)	(-1.312)	(-0.739)	(-1.251)
Public_target	0.224	-0.489	0.573	-0.546
	(0.751)	(-1.507)	(1.231)	(-1.047)
Log(*deal value*)	0.495***	0.457***	0.406***	0.279*
	(5.576)	(4.787)	(2.956)	(1.866)
Log(*MV*)	-0.210**	-0.162	-0.166	0.230
	(-2.110)	(-1.421)	(-1.006)	(1.268)
Tobin's Q	-0.582***	-0.989***	-0.216	-0.782***
	(-4.277)	(-6.327)	(-0.920)	(-3.632)
% Cash_payment	0.001	-0.000	0.003	0.001
	(0.476)	(-0.019)	(0.837)	(0.335)
% Stock_payment	-0.003	0.005	-0.003	0.005
	(-0.809)	(1.067)	(-0.387)	(0.699)
Cross_industry	-0.249	-0.163	-0.284	-0.033
	(-1.182)	(-0.711)	(-0.863)	(-0.095)
Friendly_deal	0.467	0.005	-0.357	-1.766*
	(0.322)	(0.005)	(-0.272)	(-1.824)
Competing_deal	0.327	0.127	-0.663	-0.763
	(0.473)	(0.112)	(-0.457)	(-0.467)
Adjusted R^2	0.077	0.100	0.041	0.063
Observations	2,467	2,254	2,474	2,261
Year FE	Yes	Yes	Yes	Yes

Table 12. Effect of acquirer board–CEO trust on deal withdrawals

This table 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, equal to 1 if the deal is withdrawn and 0 otherwise. *Low_CAR* is equal to 1 if *CAR* is below the sample median, and 0 otherwise. The variables are defined in Appendix A. Standard errors are adjusted for clustering at the acquirer level, and *t*-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is indicated by ***, **, and *, respectively.

Variables	(1)	(2)
Board_CEO_trust	0.253	0.313*
	(1.610)	(1.807)
Board_CEO_trust × *Low_CAR*	-0.401**	-0.515**
	(-2.001)	(-1.961)
Low_CAR	-0.303	0.092
	(-1.341)	(0.150)
Cultural_distance	0.023	0.124
	(0.162)	(0.609)
Public_target	1.162***	1.160***
	(3.542)	(3.534)
Log(*deal value*)	0.426***	0.426***
	(4.236)	(4.245)
Log(*MV*)	-0.310***	-0.310***
	(-2.855)	(-2.846)
ROA	-0.009	-0.008
	(-0.671)	(-0.664)
Tobin's Q	-0.100	-0.097
	(-0.775)	(-0.764)
% Cash_payment	-0.003	-0.003
	(-0.909)	(-0.907)
% Stock_payment	-0.005	-0.005
	(-1.028)	(-1.044)
Cross_industry	-0.201	-0.201
	(-0.895)	(-0.894)
Friendly_deal	-2.989***	-2.989***
	(-4.586)	(-4.588)
Competing_deal	2.261***	2.270***
	(5.709)	(5.684)
Cultural_distance × *Low_CAR*		-0.187
		(-0.687)
Pseudo R^2	0.288	0.289
Observations	2,865	2,865
Year FE	Yes	Yes

Table 13. Placebo tests

This table presents the results of a placebo test of the effect of acquirer board–CEO trust on M&A outcomes. A pseudo trust measure (*Pseudo_Board_CEO_trust*) is calculated using randomly shuffled country-pair bilateral trust. We run three regression models to test the effect of *Pseudo_Board_CEO_trust* on M&A outcome variables. The regression models, M&A outcome variables, and coefficient estimates using the *Board_CEO_trust* (actual estimate) are presented in columns (1) to (3), respectively. Each regression model using *Pseudo_Board_CEO_trust* is repeated 1,000 times. The 1st percentile, mean, and 99th percentile of the distribution of coefficient estimates are presented in columns (4) to (6), respectively.

(1)	(2)	(3)	(4)	(5)	(6)
Regression model	Dependent variable	Actual estimate	1st percentile	Mean	99th percentile
Table 8, column (1)	*CAR* (%)	-0.484	-0.246	-0.002	0.259
Table 11, column (2)	*EBIT/assets* (*year* +3) (%)	-0.410	-0.274	-0.003	0.307
Table 12, column (1)	*Deal_withdrawal*	-0.401	-0.569	-0.009	0.573