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Managerial Trustworthiness and Buybacks

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Abstract

CEO trustworthiness is positively related to long-term excess returns after buyback announcements. When the Chief Executive Officer (CEO) is trustworthy, statements that the stock is undervalued are more credible. CEO trustworthiness is initially measured by the extent to which people in the county where the company headquarters is located trust each other. Further, the positive impact of trustworthiness on excess returns is higher when the CEO has been a long-term resident of a high-trust county, and correspondingly, trustworthy CEOs are less likely to be accused of financial misreporting. Our conclusions are confirmed when we use alternative measures of trustworthiness such as employee trust and CEO integrity.

I. Introduction

Although managers have a fiduciary responsibility to maximize shareholder value, the basic assumption of the agency literature in economics and finance is that managers cannot be trusted. Thus, they should be incentivized with carrots (e.g., incentive pay) and sticks (e.g., monitoring by boards, activist shareholders, and hostile bidders). This relatively cynical view of humanity does not allow for the possibility that some managers simply believe that maximizing shareholder value is the right thing to do because respecting this implicit contract is perceived as an ethical responsibility (Vermaelen (2010)). The argument that social capital and the trust that it generates constitute a superior alternative to traditional methods of controlling agency problems has received theoretical support from Al-Najjar and Casadesus-Masanell (2001) and Chami and Fullenkamp (2002), and empirical support from Guiso, Sapienza, and Zingales (2008), (2015). While the empirical evidence is based on country-specific measures of trust, the purpose of the current article is to understand whether CEO trustworthiness reduces agency problems in the context of share buybacks and equity issues.

To test whether managers can be trusted to respect the implicit contract, we need to measure trust. We follow work in sociology and economics and define trust

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as a community-level construct that reflects the strength of norms and beliefs in the community (Coleman (1988), Putnam (1993), and Knack and Keefer (1997)). Our primary measure of trust is based on the General Social Survey (GSS), prepared by NORC at the University of Chicago, the largest university-based survey research organization in the U.S. The survey covers 333 counties, representing approximately one-half of total U.S. market capitalization and one-half of the U.S. population, and it has been widely used in the academic work on social capital and trust and validated by experimental measures in the laboratory and in the field (Glaeser, Laibson, Scheinkman, and Soutter (2000), Murtin, Fleischer, Siegerink, Aassve, Algan, Boarini, González, Lonti, Grimalda, Vallve, Kim, Lee, Putterman, and Smith (2018)). This choice of proxy for the trustworthiness of CEOs is justifiable because individuals gradually conform to the values and norms of the counties where they live and work. The idea that trust emerges from the interactions between people in the community has a long and venerable history in social sciences from de Tocqueville (1835) and Parsons (1937) to more recent scholars such as Coleman (1988), Fukuyama (1995), Putnam (1993), (2000), and Uslaner (2002). There is considerable evidence that individuals in communities with higher levels of social capital and trust are less likely to engage in opportunistic behaviors (La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997), Hasan, Hoi, Wu, and Zhang (2016), and Hoi, Wu, and Zhang (2019)). Thus, we assume that CEOs in high-trust counties are more likely to be trustworthy than CEOs in low-trust counties. We validate this assumption by demonstrating that trustworthy CEOs are less likely to be accused of financial misreporting. Furthermore, our measure assumes that the CEOs have adopted the norms and values of the counties where they work, and we validate this assumption by showing that the longer CEOs are situated in high-trust areas, the more trustworthy they will be.

We demonstrate the robustness of our results using 2 alternative measures of trust. The first alternative is an intra-organizational trust measure used by Edmans (2011), specifically, whether the employees trust the CEO. The assumption here is that the trust of the CEO is based on his or her record of respecting implicit contracts with employees and that such a CEO is more likely to respect implicit contracts with others (i.e., shareholders). This measure of CEO trustworthiness is based on the annual employee satisfaction survey administered by the Great Place to Work Institute for Fortune 100 Best Companies to Work for in U.S. The survey covers topics such as attitudes toward management, job satisfaction, fairness, and camaraderie. Across all levels of employees, 250 individuals are randomly selected from each firm and asked to complete the surveys anonymously and return their responses directly to the Institute. It is important to emphasize that Fortune has no involvement in the company evaluation process, as such involvement could incentivize bias toward companies that advertise with Fortune.

Our second alternative measure of trustworthiness is CEO integrity, which is measured by analyzing earning conference call transcripts with machine learning techniques. Li, Mai, Shen, and Yan (2020) use a neural network model to analyze Q&A sections of earning call transcripts and classify words into different categories of corporate culture, one of which is integrity. The presumption is that the choice of words during a conference call reflects the prevailing values of the manager, as a trustworthy manager is more likely to use words that convey the values in which he

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or she believes. Using these alternative measures of trust, we find that repurchase authorization announcements are followed by higher long-run abnormal returns when the CEOs are trusted by employees and when they exhibit a high degree of integrity.

We focus on buybacks and trust in this article because buybacks are often regarded as one of the most controversial corporate decisions. The controversy has even reached the political arena, where some politicians are calling for legislation to restrict, if not ban, share buybacks (https://thehill.com/policy/finance/379633-dems-offering-bill-aimed-at-curbing-stock-buybacks). Although announcements of share repurchase programs, on average, generate positive short- and long-term excess returns (Ikenberry, Lakonishok, and Vermaelen (1995), Peyer and Vermaelen (2009), Dittmar and Field (2014), and Manconi, Peyer, and Vermaelen (2019)), not all share buybacks are created equal. Buyback programs can have nonvalue-maximizing drivers such as earnings per share (EPS) manipulation (Bens, Nagar, Skinner, and Wong (2003), Cheng, Harford, and Zhang (2015)), preventing takeovers by increasing managerial ownership (Billet and Hui (2007)) or signaling a lack of investment opportunities. The challenge for outside investors is to judge whether a specific buyback announcement is driven by a genuine desire to increase shareholder value.

Research has suggested various predictive indicators to separate buybacks with good and bad drivers. First, Peyer and Vermaelen (2009) develop an undervaluation index (U-index) that assumes that managers of small, beat-up value stocks are more likely to repurchase shares because of undervaluation. The argument is that fewer analysts follow small firms, making market inefficiencies more probable. A buyback by a value stock is also much less likely to signal a decline in growth opportunities. Finally, a buyback preceded by a stock price decline is more likely to be driven by undervaluation than a buyback preceded by a stock price increase. Second, Caton, Goh, Lee, and Linn (2016) show that measures of governance quality are positively related to short- and long-term excess returns because higher governance quality should mean that managers care more about shareholder value. Finally, Evgeniou, Junque de Fortuny, Nassuphis, and Vermaelen (2018) show that long-term excess returns are positively related to volatility, particularly idiosyncratic volatility. The argument is that if an open-market buyback program creates an opportunity to exploit undervaluation, the option is worth more if the stock is riskier (Ikenberry and Vermaelen (1996)). Moreover, the information advantage of managers should be greater if stock prices are largely driven by company-specific information, which should correspond to higher idiosyncratic volatility.

In this article, we test the predictive power of another variable, trust, and we examine the extent to which firm managers who are trusted are more likely to respect the implicit contract to create value for long-term shareholders. In addition, we investigate whether shareholders of companies with trustworthy managers more readily believe the statements of managers when a particular motivation is cited for share repurchase. For example, when managers state that they want to buy back shares because they are undervalued (market timing) or when they demonstrate a commitment to maximize shareholder value (reducing

agency costs) is such a statement or promise more credible when the manager is more trustworthy?

Note that our measure of CEO trust is less subject to endogeneity concerns. More specifically, it is highly improbable that people will trust managers at the time of the buyback announcement because they (the people) know that excess returns 4 years after the buyback announcement are positive. Unlike Guiso et al. (2015), we do not claim that trust, in general, is associated with higher firm value. Rather, we argue that a specific decision (i.e., the repurchase of common stock) is more likely to be driven by concern for long-term shareholder value when it is made by a manager who is trusted. As a result, trust is positively correlated with long-term stock returns, but not with the decision to repurchase stock or with firm value, in general, thereby avoiding endogeneity concerns.

Although our focus is on long-term excess returns, for the sake of completeness, we also test whether trust influences short-term excess returns. Note that a positive relation between short-term excess returns and trust results in some strong and often unrealistic assumptions. For example, one assumption is that investors who set prices around the announcement date are aware of the various trust measures. However, this awareness is unlikely, especially if trust is measured using the GSS results from the county in which the CEO is located, while the investor lives elsewhere. In the long run, the true consequence of the share buyback is revealed, regardless of the shareholder's knowledge of the GSS or other measures of trust. In contrast to making the link between trust and short-term returns, we do not need to assume that the marginal investor knows the managerial trust level. Thus, we hypothesize that managers who are trusted make better buyback decisions (i.e., buybacks motivated by long-term value creation). Hence, we predict a positive relation between CEO trustworthiness and long-term excess returns.[1]

We find no significant relation between short-term announcement returns and trust after open-market repurchase announcements. However, we find a significant positive relation between the 3 proxies for trust and long-term excess returns. This effect is not only statistically significant, but also economically significant: an investor who buys shares of companies governed by trustworthy managers earns an extra monthly return of 0.2% over the next 4 years. Moreover, when managers state in a repurchase announcement press release that their shares are undervalued, long-term excess returns are greater when the trust in the manager is higher and when we measure trust using the GSS.[2]

We reach this conclusion after controlling for company-specific variables such as the U-index and its components, governance quality, compensation incentives, and other sociodemographic variables that may be correlated with trust, such as

[1]Prior research has shown a positive relationship between company reputation and short-term excess returns (Bonaimé (2012), Ota, Kawase and Lau (2019)). In contrast, we do not expect trustworthiness and short-term excess returns to be linked. Reputation is based on past observed behavior, such as prior repurchase completion rates or management earnings forecast accuracy. Trust, on the other hand, is a prediction of future behavior. If a person is trustworthy, there is a high probability that they will act according to expectations. Unlike reputation, trustworthiness is not defined by others and it can go unobserved. Hence, there is no reason to expect trust to effect short-term excess returns.

[2]When we measure trustworthiness using an employee satisfaction survey, the small sample size reduces the statistical power of the test.

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population size, ethnicity, income, and income inequality (see, e.g., Alesina and Ferrera (2000), (2002)). In robustness tests, we further include state fixed effects to control for the possibility that buybacks may be driven by state-wide economic conditions (e.g., economic growth or unemployment). In all of our test specifications, the trust variable is one of the most robust predictors of long-term excess returns. We admit that we do not fully understand why people in different counties trust each other more. If trust is driven by very personal reasons (e.g., traumatic experiences), then one would expect our trust measure to vary substantially over time and have no predictive value for short- or long-term stock returns. However, we document evidence that our trust measure is relatively stable. Of course, our lack of knowledge on what drives trust applies to other explanatory variables such as past returns.

Note that by focusing on long-term returns, we focus on the market timing hypothesis as opposed to the agency cost hypothesis. According to the agency cost hypothesis, buybacks create shareholder value because they eliminate excess cash that would otherwise be wasted on negative net present value (NPV) projects. This hypothesis assumes that something is wrong with the investment policy of the firm, not with the information efficiency of the market. Both hypotheses have different implications for stock price behavior. If the management eliminates excess cash to reduce agency costs, stock prices should rise at the time of the announcement. On the other hand, if the firm is buying back stock because the shares are undervalued, such timing activity will only succeed if the market underreacts to the buyback announcement because the actual repurchase takes place after the buyback authorization announcement. Therefore, only the market timing motivation predicts long-term excess returns.

To the best of our knowledge, this paper is the first to clearly demonstrate that when investors assess managerial incentives for repurchasing shares, trust matters. Prior studies have documented that trust affects firm performance (Guiso et al. (2015)), financial reporting choices (Hasan et al. (2016)), and household investment decisions (Gurun, Stoffman, and Yonker (2018)) and that trust is more valuable during a financial crisis (Lins, Servaes, and Tamayo (2017)). Using a survey from Great Place to Work as a measure of employees' trust of management, Edmans (2011), (2012) reports a positive correlation between firm performance and employee perceptions of managerial ethics. We complement this stream of literature by showing that buybacks, as well as public statements that a repurchase is driven by undervaluation, are more credible signals of undervaluation when managers are perceived as trustworthy. Our article contributes to the growing literature on the relevance of trust in finance.

The remainder of this article proceeds as follows: Section II describes the data and hypotheses. In Section III, we test whether trust influences long-term excess returns and whether stated buyback motivations in repurchase announcements can be trusted more when the firm's headquarters is in a high-trust county. Section IV describes the validation tests of our trustworthiness measure. We describe various robustness tests in Section V. Section VI provides concluding remarks.

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II. Data

A. Share Buyback Sample

Our sample is constructed at the intersection of buyback announcement data from SDC, a buyback news search from Factiva to retrieve data on stated motivations for the buyback program, trust data from the GSS, financial and accounting information from Compustat, CRSP, and and Thomson Reuters, and sociodemographic variables from the U.S. Census and several government and nonprofit data sets.

We collect a sample of open-market share repurchase authorization announcements made by U.S. firms between 1992 and 2016[3]. Announcements are obtained from the SDC Mergers and Acquisitions and Repurchases databases, and stock price and accounting data are obtained from CRSP and Compustat for U.S. firms. We focus on open-market share repurchases because they are the most common form of repurchase worldwide. We exclude i) going-private transactions by requiring that the percentage of shares sought for the buyback is less than 50%, ii) all events from firms in the financial and utility sectors (with Standard Industrial Classification codes between 40 and 49 and between 60 and 69) because they face a very different regulatory and economic environment, and iii) all events with missing trust information and control variables. Our final sample consists of 7,649 buyback events from 1992 to 2016.

We also collect data on the stated motivation for the buyback program by manually searching Factiva for relevant news articles. We classify announcements into five categories. The first category comprises announcements from which the stated motivation may be interpreted as "undervaluation." UNDERVALUE is a dummy variable that takes a value of 1 if an announcement falls into this category. Such announcements contain the following keywords in the news articles: "undervalue," "future growth," "gain in long run," "confidence in future prospects," "underperform," "low share price," "share price is cheap," and "growth in the long run." The second category comprises announcements from which the stated motivation may be interpreted as a reduction in the agency costs of free cash flow. REDUCE_AGENCY is a dummy variable that takes the value of 1 if an announcement falls into this category. Such announcements contain the following keywords: "commitment to shareholder value," "return cash to shareholders," "good use of cash," "increase shareholder value," and "improve shareholder value." The third category comprises announcements that suggest EPS management. EPS_MGT is a dummy variable that takes the value of 1 if an announcement falls into this category. Such announcements contain the following keywords: "strengthen EPS," "avoid dilution," "reduce number of shares," and "provide shares for use in executive compensation." The fourth category comprises announcements that indicate that the buyback is an expansion or an extension of a previous program. Bargeron, Bonaime, and Thomas (2017) find that long-term excess returns are significant only after repeat repurchases. EXTEND_BUYBACK

[3]Our sample starts (stops) at 1992 (2016) because this is the first year (last year) we have measures on trust from the GSS.

is a dummy variable that takes the value of 1 if an announcement falls into this category. Such announcements contain the following keywords: "extension of buyback," "expansion of buyback," and "authorized additional buyback." Finally, the fifth category comprises all of the announcements for which no motivation is mentioned (NOT_ STATE). Appendix A provides some examples of announcements and their classification. Note that an announcement can have multiple stated motivations, such as EPS management and undervaluation. For these events, both the EPS_MGT and UNDERVALUE are set to 1.

B. Trust Measures

We measure public trust using the GSS, a nationally representative survey of attitudes and intergroup relations.[4] The GSS is a regular, ongoing interview survey of U.S. households and is widely regarded as the single best source of data on societal trends. In fact, it is the second most frequently analyzed source of information for the social sciences in the U.S. after the U.S. Census (https://en.wikipedia.org/wiki/NORC_at_the_University_of_Chicago). The average response rate for the GSS is approximately 76% (https://gss.norc.org/Documents/other/Response%20rates.pdf). Cook and Ludwig (2006), p. 318 indicate that the GSS "is capable of providing representative samples at the national or census region or even [the] division level." The GSS covers 333 counties, representing approximately one-half of total U.S. market capitalization and one-half of the U.S. population. The details of the GSS methodology are relatively technical, and further information can be found on the GSS website.[5]

We follow prior work on social capital and trust and construct our measure of trust based on the question: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" Respondents can answer with "can be trusted" (assigned a value of 3), "can't be trusted"

[4]The GSS is prepared by NORC at the University of Chicago. NORC is the oldest and largest university-based survey research organization in the U.S. (Lavrakas (2008)). It incorporates methodological experiments into each year of GSS data collection. These experiments involve question wording, context effects, the use of various types of response scales, random probes, and other assessments of validity and reliability. The basic GSS design is a repeated cross sectional survey of a nationally representative sample of noninstitutionalized adults who speak either English or Spanish. Subsampling of nonrespondents is done to limit survey costs, while maintaining a nationally representative sample. The GSS sample is drawn using an area probability that randomly selects respondents in households across the U.S. to take part in the survey. Respondents that become part of the GSS sample are from a mix of urban, suburban, and rural geographic areas. Participation in the study is strictly voluntary. Social Science Research Instructional Center comments as follows on the quality of GSS data: "the GSS tries to follow the highest survey standards in design, sampling, interviewing, processing, and documentation. Items are designed by leading specialists in their field and then pretested, full-probability sampling is used, a high response rate is obtained, and many data quality checks from validation to verification are employed." More information can be found on the NORC website (http://gss.norc.org/Get-Documentation).

[5]More technical information on the survey can be found here: http://www3.norc.org/GSS+Website. Some of the data used in this analysis are derived from Sensitive Data Files of the GSS, obtained under special contractual arrangements designed to protect the anonymity of respondents. These data are not available from the authors. Persons interested in obtaining GSS Sensitive Data Files should contact the GSS at GSS@NORC.org.

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(assigned a value of 1), or "depends or don't know" (assigned a value of 2). We then take the average across respondents to obtain a county-level measure of trust for a given year. The average (and median) is approximately 1.8. We then transform this trust variable into a dummy variable: counties with an above-median level of trust across all 333 counties (nationwide) are given a value of 1, and counties with a below-median level of trust are given a value of 0. This transformation makes interpreting regression coefficients more straightforward. As shown in Section V, our results hold if we use continuous trust measures. Information on trust at the county level is available for every other year from 1992 until 2016, albeit not consecutively for every county. Other dimensions of trust (e.g., trust across racial lines, trust across socioeconomic status, and trust in the federal government) are also measured but much more haphazardly. In our main tests, we follow previous studies (e.g., Alesina and La Ferrara (2000)) and linearly interpolate the data to obtain values for the missing years. Approximating trust linearly increases the power of our tests and gives us the opportunity to study the time-series properties of our setting, but as discussed in Section V, the results also hold when we do not linearly interpolate trust.

The trust question is widely accepted in research (for recent reviews, see Delhey, Newton, and Welzel (2011), Nannestad (2008)), and it is used in other large-scale attitudinal surveys, such as the World Values Survey and the European Social Survey. Moreover, experimental work shows that the self-reported trust measure is a good predictor of actual trustworthy behavior (Glaeser et al. (2000), Fehr, Fischbacher, von Rosenbladt, Schupp, and Wagner (2003)). Using a sample of 189 Harvard students, Glaeser et al. (2000) find that individual responses to the trust question were strongly and significantly correlated with trustworthy behavior in the trust game. Their finding is replicated by Lazzarini, Madalozzo, Artes, and Siqueira (2004) in a face-to-face experimental setting in Brazil. Algan, Benkler, Fuster Morell, and Hergueux (2013) show that the measure is a good gauge for trustworthy behavior in settings rife with collective action problems and freeriding, such as Wikipedia and open source software development communities. These findings are confirmed by Murtin et al. (2018), who conduct a large-scale trust experiment in 6 countries and found that self-reported measures of trust correlate with trustworthiness as well as cooperation and altruism.

Following the previous literature (e.g., Coval and Moskowitz (1999), Loughran and Schultz (2004), Ivkovic and Weisbenner (2005), and Pirinsky and Wang (2006)), we define a firm's location as the location of its headquarters. As noted by Pirinsky and Wang (1994), this approach appears "reasonable given that corporate headquarters are close to corporate core business activities." We extract historical headquarters locations from previous 10-K filings available on Edgar. If the data are not available on Edgar, we use the value in the closest year for which data are available. TRUST is our main proxy for the market's prior evaluations of CEO trustworthiness.

C. Long-Term Announcement Returns

We calculate long-term announcement returns using the Fama and French (2015) 5-factor model (ADJ_RET5). We obtain estimates of the long-run

risk-adjusted returns for individual firms in the spirit of Brennan, Chordia, and Subrahmanyam (1998) as follows: For a given stock in a given calendar month, the 1-factor risk-adjusted return is computed as the risk-free rate of return plus the residual from a regression of the stock's excess return on the Fama–French 5-factor model. Risk-adjusted returns are then averaged over the 48 months following the announcement date to obtain the risk-adjusted average monthly returns.

D. Control Variables

Following prior studies (e.g., Bens et al. (2003), Peyer and Vermaelen (2009)), we control for firm size (LOG_MTKCAP), leverage ratio (LEVERAGE), book-to-market ratio (BTM), institutional ownership (IO), capital expenditures (CAPEX), dividend payout policy (PAYOUT), return on assets (ROA), asset liquidity (LIQUID_ASSETS), and following Evgeniou et al. (2018), estimates of volatility (VOLATILITY), and idiosyncratic volatility (IDIO_RISK).

Furthermore, we consider whether the undervaluation index (U-index) developed by Peyer and Vermaelen (2009) remains a robust indicator of abnormal returns to separate companies that are buying back stocks because they are undervalued from companies that repurchase shares for other reasons. We calculate the U-index as follows: A given firm receives a prior return "score" of 5 if its return before the buyback announcement is in the lowest quintile of all of the CRSP firms' prior 6-month returns in a given month. Firms in the highest prior return quintile receive a score of 1. Size and book-to-market scores are similarly assigned, with large firms receiving low scores (they are less likely to be mispriced) and high book-to-market firms receiving high scores (a value stock is more likely to buy back stock because it is undervalued than a growth stock). The U-index is the sum of the prior return, size, and book-to-market scores and ranges from 3 (least undervalued) to 15 (most undervalued).

Although we focus on the impact of CEO trust on abnormal returns of buybacks, concurrent changes in other social and economic conditions may drive changes in both trust and excess returns. Specifically, we include the following county-year characteristics: population (POPULATION), religion (RELIGIOSITY), gender distribution (%FEMALE), education (EDUCATION), income per capita (INCOME), ethnicity diversity (ETHNICITY), income inequality (INCOME_INEQUALITY), and political affiliation (%VOTE_DEMOCRATS). Consistent with prior studies such as McGuire, Omer, and Sharp (2012), we do not make predictions about the association between our demographic control variables and the various dependent variables we examine. We winsorize all continuous variables at the top and bottom percentiles. All variables are defined in Appendix B.

E. Summary Statistics

Our sample consists of 7,649 buyback announcements made by 2,523 firms during the period 1992–2016. In Table 1, Panel A provides summary statistics and Panel B provides statistics on the stated motivations in the buyback press release.

Panel A of Table 1 shows that the average value of the high-trust dummy is 0.56, indicating that a typical repurchasing firm is headquartered in a relatively

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TABLE 1

Summary Statistics

All continuous variables in Table 1 are winsorized at 1%. All other variables are defined in Appendix B. The sample period ranges from 1992 to 2016.

Panel A. Share Buyback

	N	Mean	Median	Std. Dev.	P25	P75
ADJ_RET5	7,649	0.006	0.005	0.019	−0.004	0.015
TRUST	7,649	0.562	1.000	0.496	0.000	1.000
TRUST_C	7,649	1.847	1.800	0.486	1.500	2.143
UNDERVALUE	7,649	0.176	0.000	0.381	0.000	0.000
REDUCE_AGENCY	7,649	0.283	0.000	0.450	0.000	1.000
EPS_MGT	7,649	0.039	0.000	0.193	0.000	0.000
EXTEND_BUYBACK	7,649	0.082	0.000	0.274	0.000	0.000
NOT_STATE	7,649	0.534	1.000	0.499	0.000	1.000
U-INDEX	7,649	9.034	9.000	3.191	6.000	12.000
PRIOR_RETURNS	7,649	0.015	0.006	0.263	−0.147	0.158
LOG_MKTCAP	7,649	6.956	7.010	2.076	5.507	8.375
BTM	7,649	0.538	0.416	0.435	0.255	0.683
LEVERAGE	7,649	0.173	0.142	0.168	0.006	0.288
IO	7,649	0.138	0.000	0.300	0.000	0.000
CAPEX	7,649	0.052	0.037	0.049	0.019	0.067
PAYOUT	7,649	0.012	0.000	0.048	0.000	0.014
ROA	7,649	0.073	0.068	0.105	0.032	0.115
LIQUID_ASSETS	7,649	0.267	0.242	0.226	0.080	0.416
IDIO_RISK	7,649	0.726	0.752	0.179	0.601	0.876
VOLATILITY	7,649	0.027	0.024	0.014	0.017	0.034
LOG_POPULATION	7,649	1.709	1.127	1.869	0.709	1.721
%FEMALE	7,649	0.510	0.509	0.010	0.503	0.517
EDUCATION	7,649	0.346	0.337	0.091	0.271	0.413
INCOME	7,649	2.858	2.690	0.751	2.314	3.346
ETHNICITY	7,649	0.679	0.688	0.138	0.563	0.791
%VOTE_DEMOCRATS	7,649	0.568	0.565	0.121	0.483	0.641
INCOME_INEQUALITY	7,649	0.906	0.910	0.018	0.895	0.921

Panel B. Buyback Reasons Provided

	N	%
No. of Announcements Citing the Following Reasons		
UNDERVALUE	1,348	15.8
REDUCE_AGENCY	2,162	25.4
EPS_MGT	295	3.5
EXTEND_BUYBACK	626	7.3
NOT_STATE	4,088	48.0
No. of Reasons Provided		
Only one reason provided	2,827	37.0
Two reasons provided	606	7.9
More than 2 reasons provided	128	1.7
Not stated	4,088	53.4

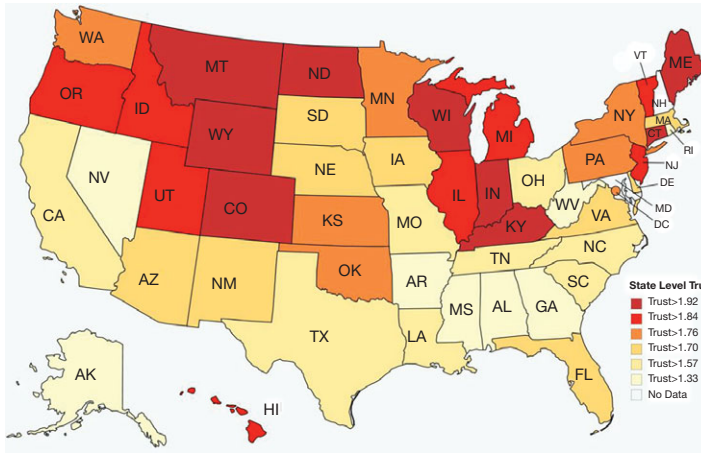
high-trust county. Figure 1 shows the distribution of the trust measure across states. The level of trust is generally higher near the Canadian border. For example, of the 50 states for which we have data related to trust, Montana ranks third and Wisconsin ranks fourth. The level is intermediate on the coasts (e.g., New York State ranks 23rd). It is lower in states near the Mexican border (e.g., Texas ranks 38th) and in the South (e.g., Arkansas ranks 46th and Mississippi ranks 47th). Although trust is measured by polling different individuals in different years, our trust measure is relatively stable. Specifically, 92.10% (92.70%) of high (low) trust counties at $t-1$ remain in the same category in year t.

Panel A shows that buyback announcements are preceded by 6-month returns of 1.5%. Repurchasing firms tend to be profitable (average ROA of 7.3%) with a leverage ratio of 17%. The average (median) U-INDEX is 9, slightly above the

FIGURE 1

Average Trust by States

Figure 1 produces the heat map for average trust by states. The darker the color, the higher the average trust in that state. The sample period ranges from 1992 to 2016. We do not have trust data for any counties for the states of Maryland or New Hampshire.



value that one would expect if a typical repurchasing firm were not overvalued or undervalued (i.e., 8).

With respect to the motivation for the share buyback, Panel B shows that approximately 48% of the announcements do not provide any motivation for pursuing the repurchase. Overall, 15.8% and 25.4% of announcements explicitly state undervaluation and reducing agency costs as the motivations for buyback transactions, respectively. Furthermore, 3.5% cite EPS management as the motivation, and 7.3% of the sample is an extension of a previously announced buyback program.

Table 2 provides the univariate correlations between TRUST and the different variables. TRUST is low in highly populated counties with more females and more income inequality and high in counties populated with more educated high-income inhabitants. EDUCATION is the variable most positively correlated with TRUST (correlation of 0.26). As expected, the U-INDEX is highly negatively correlated with prior returns (−0.57) and market cap (−0.75) and positively correlated with the book-to-market ratio (0.67). The U-INDEX and UNDERVALUE have a low correlation. This does not mean that CEOs in counties with low trust lie about being undervalued. It could simply mean that a high U-index (the firm is a small value stock that experiences a large stock market decline prior to the buyback announcement) makes it obvious to investors that the buyback is motivated by undervaluation. Therefore, a confirmation in a press release is less necessary. We will show in Table 6 that in the long-run, the trust variable is a better predictor of stock returns when the firm mentions undervaluation as a motivation for the buyback, controlling for other characteristics.

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TABLE 2

Correlation

All continuous variables in Table 2 are winsorized at 1%. The sample period ranges from 1992 to 2016. All variables are defined in Appendix B.

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
[1]	ADJ_RET5	1.00																							
[2]	TRUST	0.05	1.00																						
[3]	UNDERVALUE	0.05	0.01	1.00																					
[4]	REDUCE_AGENCY	−0.02	−0.01	0.12	1.00																				
[5]	EPS_MGT	−0.01	0.00	0.08	0.03	1.00																			
[6]	EXTEND_BUYBACK	0.01	−0.02	−0.01	−0.02	−0.01	1.00																		
[7]	U-INDEX	0.14	−0.03	0.09	0.00	−0.02	−0.05	1.00																	
[8]	PRIOR_RETURNS	−0.09	−0.04	−0.04	0.00	0.00	0.02	−0.57	1.00																
[9]	LOG_MKTCAP	−0.17	0.03	−0.13	0.03	0.03	0.05	−0.75	0.22	1.00															
[10]	BTM	0.12	−0.05	0.05	−0.01	−0.03	−0.03	0.67	−0.27	−0.50	1.00														
[11]	LEVERAGE	−0.05	−0.07	−0.02	−0.02	−0.01	0.00	−0.12	0.04	0.17	−0.01	1.00													
[12]	IO	−0.02	0.01	−0.05	0.06	0.00	0.07	−0.13	0.07	0.16	−0.08	−0.02	1.00												
[13]	CAPEX	0.01	−0.04	0.00	−0.08	−0.02	−0.01	−0.03	−0.04	0.00	−0.05	0.13	−0.04	1.00											
[14]	PAYOUT	−0.03	0.00	−0.01	0.00	−0.02	−0.01	−0.09	0.03	0.08	−0.06	0.00	−0.02	0.00	1.00										
[15]	ROA	0.00	0.01	−0.01	0.01	0.01	0.03	−0.25	0.06	0.18	−0.34	−0.13	0.04	0.08	0.05	1.00									
[16]	LIQUID_ASSETS	0.09	0.07	0.07	0.00	0.03	−0.01	0.28	−0.11	−0.39	0.10	−0.51	−0.06	−0.24	−0.03	0.09	1.00								
[17]	IDIO_RISK	0.12	−0.01	0.09	−0.11	−0.02	−0.04	0.33	−0.07	−0.50	0.20	−0.04	−0.15	0.07	0.00	−0.04	0.14	1.00							
[18]	VOLATILITY	0.18	0.06	0.11	−0.08	0.01	−0.06	0.36	−0.28	−0.52	0.28	−0.20	−0.15	0.08	−0.09	−0.14	0.34	0.22	1.00						
[19]	LOG_POPULATION	−0.01	−0.17	0.01	−0.01	−0.02	0.01	0.05	−0.01	−0.05	0.05	−0.02	−0.01	0.03	0.00	−0.01	0.00	0.03	0.04	1.00					
[20]	%FEMALE	−0.04	−0.13	0.02	0.00	−0.03	0.02	−0.01	0.03	0.04	0.04	0.16	−0.04	−0.02	0.04	−0.01	−0.17	0.04	−0.15	−0.16	1.00				
[21]	EDUCATION	−0.02	0.26	−0.05	0.06	0.01	−0.01	−0.10	0.02	0.13	−0.07	−0.08	0.08	−0.16	0.00	−0.02	0.05	−0.14	−0.03	−0.28	−0.05	1.00			
[22]	INCOME	−0.06	0.20	−0.05	0.11	0.00	0.00	−0.11	0.04	0.19	−0.07	−0.07	0.10	−0.19	0.01	−0.02	0.03	−0.23	−0.12	−0.24	0.04	0.88	1.00		
[23]	ETHNICITY	0.02	0.08	0.05	0.00	0.03	−0.01	0.05	−0.02	−0.11	−0.01	0.02	−0.02	0.02	0.01	0.03	0.02	0.12	0.02	−0.40	0.06	0.01	−0.03	1.00	
[24]	%VOTE_DEMOCRATS	−0.01	0.02	−0.03	0.03	−0.02	0.00	−0.05	0.02	0.10	0.01	−0.07	0.01	−0.13	0.01	−0.04	0.03	−0.10	−0.05	0.13	0.33	0.32	0.38	−0.55	1.00
[25]	INCOME_INEQUALITY	0.03	−0.22	0.05	−0.08	−0.01	0.01	0.08	−0.02	−0.12	0.08	0.09	−0.12	0.19	0.00	0.00	−0.09	0.16	0.09	0.33	0.12	−0.76	−0.80	−0.17	−0.10

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III. Empirical Evidence: Long-Term Excess Returns

A. Main Findings

Table 1, Panel A shows that, on average, firms experience 0.6% excess returns per month (over 48 months) after buyback authorization announcements. This finding is consistent with the hypothesis that, at least on average, the market underreacts to buyback announcements and that managers are successful at market timing. Table 3 regresses monthly long-term excess returns against trust and other variables proposed in the literature, controlling for county-specific variables. Long-term excess returns are estimated using the Fama–French 5-factor model.[6] The first 2 columns use the components of the U-INDEX (prior returns, market cap, and book-to-market ratio) as control variables, and the last 2 columns use the U-INDEX. Columns 2 and 4 control for other county-specific variables in addition to TRUST.

We find that long-term excess returns are significantly positively correlated with TRUST across all columns.[7] When CEO trust is relatively high, excess returns are 0.2% higher per month, which equates to 2.4% per year. Furthermore, because excess returns after buyback announcements are significantly positive for at least 4 years, this effect is highly economically significant. Consistent with Peyer and Vermaelen (2009), we find that the U-INDEX remains a highly significant and positive predictor of long-term abnormal returns across all regression specifications and that all its components (prior return, size, and book-to-market) are statistically significant at the 10% level. Turning to the stated motivations for the buyback, companies that mention undervaluation and companies that extend a previous buyback experience significantly higher long-term excess returns. Statements consistent with agency cost reductions appear to have no impact on long-term excess returns. One explanation is that the reduction in the agency cost effect is fully priced at the time of the buyback authorization announcement. Unlike the market timing hypothesis, which assumes that investors underreact to the buyback authorization announcement, the agency cost hypothesis does not predict long-term excess returns.

Buyback authorization extensions are followed by significantly higher long-term excess returns, suggesting that managers are better at market timing when they have more experience buying back stock. Our results are not consistent with a

[6]We obtain similar results when we use the Carhart 4-factor model or market model. For brevity, we do not tabulate these results.

[7]In untabulated results, we examine the effect of trust on short-term announcement returns. We measure cumulative abnormal return over 7-day window around the buyback announcement. We find that excess returns are significantly positively related to the U-index and the book-to-market ratio and negatively related to prior returns and market capitalization. The U-index is the most statistically significant predictor of short-term announcement returns. However, the trust variable is never significant, which is not unexpected, as it would require the unrealistic assumption that investors are, at the time of the announcement, aware of the trust level and incorporate this information into pricing. Unlike reputation (i.e., based on past observed behavior), trustworthiness is not immediately observed. If our measure was a proxy for reputation, we should find a positive relationship between trust and short-term excess returns. However, we do not find that. Thus, it does not appear that CEO reputation is driving the results.

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TABLE 3
Long-Term Excess Returns

We estimate all regressions in Table 3 using Ordinary Least Square (OLS). All continuous variables are winsorized at 1%. All variables are defined in Appendix B. Intercepts are included but unreported. The *t*-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance of coefficients (2-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity. The sample period ranges from 1992 to 2016.

	ADJ_RET5			
	1	2	3	4
TRUST	0.002 (3.58)***	0.001 (2.96)***	0.001 (3.47)***	0.001 (2.89)***
UNDERVALUE	0.001 (1.94)*	0.001 (2.08)**	0.001 (1.94)*	0.001 (2.08)**
REDUCE_AGENCY	0.001 (1.10)	0.001 (1.15)	0.001 (1.17)	0.001 (1.23)
EPS_MGT	−0.000 (−0.24)	−0.000 (−0.30)	−0.000 (−0.45)	−0.000 (−0.51)
EXTEND_BUYBACK	0.002 (2.44)**	0.002 (2.58)***	0.002 (2.45)**	0.002 (2.58)***
PRIOR_RETURNS	−0.002 (−1.81)*	−0.002 (−1.83)*		
LOG_MKTCAP	−0.001 (−3.59)***	−0.001 (−3.75)***		
BTM	0.003 (4.21)***	0.003 (4.27)***		
U-INDEX			0.001 (7.20)***	0.001 (7.39)***
LEVERAGE	−0.002 (−1.15)	−0.002 (−0.85)	−0.002 (−1.14)	−0.002 (−0.84)
IO	0.001 (2.22)**	0.001 (2.02)**	0.001 (2.27)**	0.001 (2.09)**
CAPEX	0.004 (0.66)	0.004 (0.64)	0.003 (0.45)	0.003 (0.42)
PAYOUT	−0.003 (−0.44)	−0.003 (−0.41)	−0.003 (−0.42)	−0.003 (−0.39)
ROA	0.006 (1.86)*	0.006 (1.96)*	0.004 (1.29)	0.004 (1.37)
LIQUID_ASSETS	−0.003 (−1.87)*	−0.003 (−2.19)**	−0.003 (−1.79)*	−0.003 (−2.08)**
IDIO_RISK	0.001 (0.78)	0.001 (0.77)	0.002 (1.59)	0.002 (1.64)
VOLATILITY	0.092 (3.37)***	0.087 (3.14)***	0.117 (4.44)***	0.112 (4.27)***
POPULATION		−0.000 (−1.14)		−0.000 (−1.12)
%FEMALE		−0.074 (−2.73)***		−0.071 (−2.61)***
EDUCATION		0.002 (0.28)		0.001 (0.18)
INCOME		−0.001 (−1.57)		−0.001 (−1.52)
ETHNICITY		−0.001 (−0.31)		−0.000 (−0.19)
%VOTE_DEMOCRATS		0.006 (2.09)**		0.006 (2.18)**
INCOME_INEQUALITY		−0.034 (−1.52)		−0.032 (−1.46)
No. of obs.	7,649	7,649	7,649	7,649
R^2	0.102	0.104	0.099	0.101
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

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situation in which firms manipulate stock prices because they know that buybacks will be well received. If this is the case, we should observe a reversal in the long-run returns for these firms. However, we observe the opposite. Consistent with the findings of Evgeniou et al. (2018), measures of idiosyncratic and total risk are significantly positively related to long-term excess returns. Columns 2 and 4 further control for additional sociodemographic variables. Adding these control variables has no impact on the economic or statistical significance of TRUST, the U-INDEX, or other company-specific variables. Most of the sociodemographic characteristics are not significant.

Overall, we find that TRUST, the U-INDEX and its components, volatility, and the undervaluation motivation dummy are significantly and positively related to long-term excess returns.

B. Trust and Long-Term Excess Returns: A Closer Look

The next step in our analysis is to form calendar time portfolios that sort long-term excess returns into 4 trust levels and test the extent to which CEO trust alone can explain the cross-sectional variance of long-term excess returns. We also test the robustness of our findings by using the Fama–French 4-factor model. Finally, we test whether the relation between CEO trust and long-term excess returns depends on the investment horizon.

We conduct a long-term event study using the calendar time method. For each calendar month, we construct an equally weighted portfolio, including all of the firms that made a repurchase announcement in the previous 12 months (or 24, 36, or 48 months depending on the horizon). The composition of the portfolio thus changes each month. The average monthly abnormal return of the portfolio is then regressed against the 4 factors (when we use the Fama–French 4-factor model) or 5 factors (when we use the Fama–French 5-factor model). The intercept of the regression is thus the average monthly abnormal return in the 12 (or 24, 36, or 48) months after the buyback announcement. The advantage of this method is that each event month obtains the same weight, eliminating the biases created by clustering. For each horizon, we form 4 portfolios based on trust quartile. The results are shown in Table 4. The results confirm those from Table 3. Regardless of the investment horizon or the factor model used for the benchmark, high CEO trust portfolios always outperform low CEO trust portfolios. For example, Figure 2, Graph A, which plots the average returns against the CEO trust quartile over a 48-month investment horizon, reveals the monthly excess return of 0.7% in the highest trust quartile is nearly twice as large as that in the lowest trust quartile (0.35%). Note that the difference between excess returns in the first and last trust quartiles is always larger when we use the 5-factor model rather than the 4-factor model.

Table 5 tests how the interaction between TRUST and U-INDEX affects long-term excess returns. On the one hand, it may well be that TRUST and the U-INDEX reinforce each other, suggesting that investors who want to exploit the buyback anomaly should invest in high U-index firms with trustworthy CEOs. On the other hand, it is also possible that TRUST and the U-INDEX are substitutes: when trust is high, the buyback is driven by undervaluation, even when the U-index suggests otherwise. We compute monthly excess returns for nine (3-by-3) double-sorted

TABLE 4

Calendar Time Portfolio Returns

The sample period in Table 4 ranges from 1992 to 2016. All continuous variables are winsorized at 1%. All other variables are defined in Appendix B.

		FF 4-Factor Model		FF 5-Factor Model	
		Monthly AR	*p*-value	Monthly AR	*p*-value
12 months	Low trust	0.431%	0.002	0.113%	0.002
	2	0.620%	0.000	0.362%	0.000
	3	0.714%	0.000	0.456%	0.000
	High trust	0.657%	0.000	0.403%	0.000
24 months	Low trust	0.431%	0.000	0.137%	0.000
	2	0.524%	0.000	0.285%	0.000
	3	0.695%	0.000	0.467%	0.000
	High trust	0.787%	0.000	0.612%	0.000
36 months	Low trust	0.387%	0.000	0.108%	0.000
	2	0.463%	0.000	0.198%	0.000
	3	0.604%	0.000	0.382%	0.000
	High trust	0.722%	0.000	0.572%	0.000
48 months	Low trust	0.347%	0.001	0.055%	0.001
	2	0.439%	0.000	0.181%	0.000
	3	0.566%	0.001	0.344%	0.001
	High trust	0.711%	0.000	0.552%	0.000

portfolios for each investment horizon (12, 24, 36, and 48 months) and for each of the 2-factor models. First, we form 3 portfolios based on the TRUST tercile. Within each trust level, we construct 3 portfolios based on the level of the U-INDEX. We calculate the portfolio returns based on equal-weighted portfolios. As undervaluation is more probable in small-cap stocks, value weighting would bias the results against finding positive excess returns.

Our results show that regardless of whether trust is low or high, the U-INDEX is a strong predictor of long-term excess returns. When trust is low, on average, the difference between monthly excess returns in the high and low U-index portfolios ranges from 0.36% (4-factor model, 48 months) to 0.78% (5-factor model, 24 months) across all 8 comparisons in Table 5, depending on the investment horizon and benchmark model used to calculate abnormal returns. When trust is high, the difference between the monthly excess returns in the high- and low-U-index portfolios ranges from 0.37% (4-factor model, 12 months) to 0.91% (5-factor model, 24 months). It is clear from Figure 2, Graph B that trust and the U-index do not substitute for one another but instead complement each other. Indeed, across models and investment horizons, except for the 12-month horizon, the highest excess returns are observed in the high-U-index, high-trust portfolios (Table 5). At the same time, in 5 out of the 8 comparisons, the lowest monthly excess returns are observed in the low-trust, low-U-index portfolios.

C. Buyback Motivations and CEO Trust

When managers state in press releases that their company is undervalued or that it is committed to maximizing shareholder value, a question that arises is whether markets attribute greater credibility to these statements when the managers are trustworthy. To answer this question, we moderate our regression

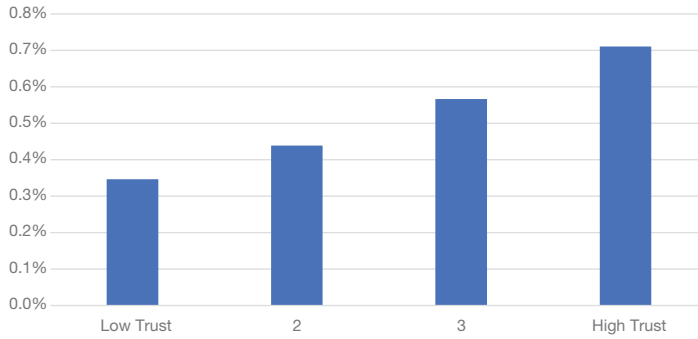
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FIGURE 2

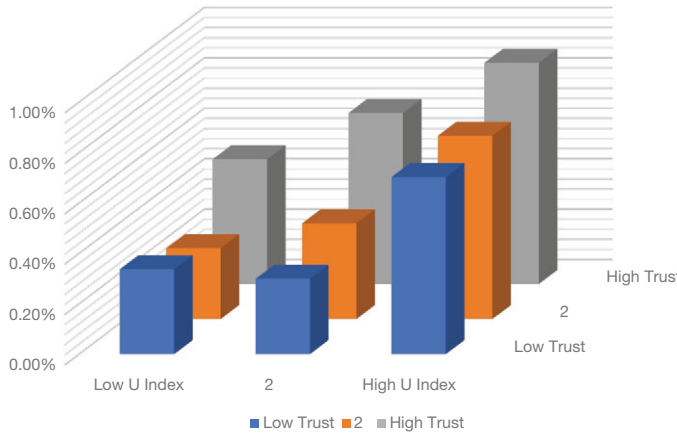
Calendar Time Portfolio Returns: Shares Repurchases

The benchmark model in Figure 2 is the Carhart 4-factor model. All variables are defined in Appendix B. The sample period ranges from 1992 to 2016. Calendar time portfolio return horizon = 48 months.

Graph A. One-Way Sort by Trust



Graph B. Two-Way Sort by Trust and U-index



to include interaction between TRUST and the motivational variables. The results in Table 6 indicate that the statement that the stock is undervalued only adds to long-term excess returns when the CEO is perceived as trustworthy. When the CEO is perceived as trustworthy, a statement that the shares are undervalued adds 0.2% per month to long-term excess returns (i.e., 9.6%) after 4 years. This effect is statistically significant at the 10% level in all 4 regression specifications.

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TABLE 5

Two-Way Sorted Calendar Time Portfolio Returns

The sample period in Table 5 ranges from 1992 to 2016. All continuous variables are winsorized at 1%. All variables are defined in Appendix B.

	Horizon = 12 Months				Horizon = 24 Months				Horizon = 36 Months				Horizon = 48 Months			
Panel A. FF 4-Factor Model																
	Low U-Index	2	High U-Index		Low U-Index	2	High U-Index		Low U-Index	2	High U-Index		Low U-Index	2	High U-Index	
Low trust	0.20%	0.44%	0.85%	Low trust	0.30%	0.33%	1.00%	Low trust	0.30%	0.33%	0.82%	Low trust	0.34%	0.30%	0.70%	
p-value	0.121	0.009	0.000	*p*-value	0.009	0.012	0.000	*p*-value	0.008	0.009	0.000	*p*-value	0.002	0.014	0.000	
2	0.37%	0.48%	1.20%	2	0.35%	0.53%	0.99%	2	0.31%	0.41%	0.86%	2	0.28%	0.38%	0.73%	
p-value	0.007	0.005	0.000	*p*-value	0.002	0.000	0.000	*p*-value	0.004	0.003	0.000	*p*-value	0.007	0.004	0.000	
High trust	0.36%	0.70%	0.73%	High trust	0.48%	0.71%	1.12%	High trust	0.50%	0.68%	0.88%	High trust	0.50%	0.68%	0.88%	
p-value	0.055	0.000	0.011	*p*-value	0.002	0.000	0.000	*p*-value	0.000	0.000	0.000	*p*-value	0.000	0.000	0.000	
Panel B. FF 5-Factor Model																
	Low U-Index	2	High U-Index		Low U-Index	2	High U-Index		Low U-Index	2	High U-Index		Low U-Index	2	High U-Index	
Low trust	−0.07%	0.13%	0.51%	Low trust	0.02%	0.02%	0.80%	Low trust	0.02%	0.01%	0.63%	Low trust	0.05%	0.00%	0.48%	
p-value	0.121	0.009	0.000	*p*-value	0.009	0.012	0.000	*p*-value	0.008	0.009	0.000	*p*-value	0.002	0.014	0.000	
2	0.14%	0.22%	0.92%	2	0.12%	0.24%	0.78%	2	0.04%	0.15%	0.65%	2	0.00%	0.14%	0.54%	
p-value	0.007	0.005	0.000	*p*-value	0.002	0.000	0.000	*p*-value	0.004	0.003	0.000	*p*-value	0.007	0.004	0.000	
High trust	0.01%	0.47%	0.54%	High trust	0.18%	0.50%	1.09%	High trust	0.26%	0.50%	0.83%	High trust	0.25%	0.48%	0.82%	
p-value	0.055	0.000	0.011	*p*-value	0.002	0.000	0.000	*p*-value	0.000	0.000	0.000	*p*-value	0.000	0.000	0.000	

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TABLE 6
Buyback Motivation and Trust

The sample period in Table 6 ranges from 1992 to 2016. We estimate all regressions using OLS. All continuous variables are winsorized at 1%. All variables are defined in Appendix B. Intercepts are included but unreported. The *t*-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance of coefficients (2-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity.

	ADJ_RET5			
	1	2	3	4
TRUST	0.001 (2.31)**	0.001 (2.21)**	0.001 (1.82)*	0.001 (1.77)*
TRUST × UNDERVALUE	0.002 (1.65)*	0.002 (1.69)*	0.002 (1.68)*	0.002 (1.72)*
TRUST × REDUCE_AGENCY	−0.000 (−0.26)	−0.000 (−0.25)	−0.000 (−0.20)	−0.000 (−0.19)
TRUST × EPS_MGT	−0.000 (−0.05)	−0.000 (−0.17)	−0.000 (−0.11)	−0.000 (−0.23)
TRUST × EXTEND_BUYBACK	−0.000 (−0.20)	−0.000 (−0.21)	−0.000 (−0.08)	−0.000 (−0.09)
UNDERVALUE	0.000 (0.04)	0.000 (0.01)	0.000 (0.11)	0.000 (0.08)
REDUCE_AGENCY	0.001 (0.95)	0.001 (0.99)	0.001 (0.94)	0.001 (0.99)
EPS_MGT	−0.000 (−0.13)	−0.000 (−0.19)	−0.000 (−0.12)	−0.000 (−0.18)
EXTEND_BUYBACK	0.002 (1.86)*	0.002 (1.88)*	0.002 (1.87)*	0.002 (1.88)*
PRIOR_RETURNS	−0.002 (−1.83)*		−0.002 (−1.86)*	
LOG_MKTCAP	−0.001 (−3.62)***		−0.001 (−3.80)***	
BTM	0.003 (4.21)***		0.003 (4.27)***	
U-INDEX		0.001 (7.25)***		0.001 (7.44)***
LEVERAGE	−0.002 (−1.14)	−0.002 (−1.13)	−0.002 (−0.85)	−0.001 (−0.83)
IO	0.001 (2.20)**	0.001 (2.26)**	0.001 (2.00)**	0.001 (2.08)**
CAPEX	0.004 (0.64)	0.003 (0.43)	0.004 (0.62)	0.003 (0.40)
PAYOUT	−0.003 (−0.45)	−0.003 (−0.42)	−0.003 (−0.42)	−0.003 (−0.40)
ROA	0.006 (1.88)*	0.004 (1.32)	0.006 (1.98)**	0.004 (1.40)
LIQUID_ASSETS	−0.003 (−1.88)*	−0.003 (−1.80)*	−0.003 (−2.20)**	−0.003 (−2.09)**
IDIO_RISK	0.001 (0.79)	0.002 (1.60)	0.001 (0.78)	0.002 (1.66)*
VOLATILITY	0.092 (3.35)***	0.116 (4.43)***	0.086 (3.13)***	0.112 (4.26)***
POPULATION			−0.000 (−1.11)	−0.000 (−1.09)
%FEMALE			−0.073 (−2.72)***	−0.070 (−2.60)***
EDUCATION			0.001 (0.22)	0.001 (0.11)
INCOME			−0.001 (−1.51)	−0.001 (−1.47)
ETHNICITY			−0.001 (−0.39)	−0.001 (−0.27)
%VOTE_DEMOCRATS			0.006 (2.06)**	0.006 (2.15)**
INCOME_INEQUALITY			−0.035 (−1.57)	−0.033 (−1.52)
No. of obs.	7,649	7,649	7,649	7,649
R^2	0.102	0.099	0.104	0.101
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

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IV. Validation of the CEO Trustworthy Measure and Alternative Measures of Trustworthiness

We use a geography-based trust measure to proxy CEO trustworthiness. To validate this assumption, we correlate this trust measure with corporate decisions that are under the CEO's direct influence. We hypothesize that trustworthy CEOs are less likely to betray the trust bestowed on them and engage in fraudulent activities. If our geography-based trust measure captures CEO trustworthiness, we expect a strong negative association between trust and fraudulent activities. The fraudulent activity examined in this article is corporate financial misreporting, and we expect that trustworthy CEOs are less likely to be investigated by the Securities and Exchange Commission (SEC) for enforcement actions. We obtain Accounting and Auditing Enforcement Release (AAER) information from the SEC website. AAERs capture financial reporting related to enforcement actions associated with civil lawsuits brought by the SEC in federal court as well as notices and orders concerning the institution and/or settlements of administrative proceedings. AAER is an indicator variable that takes the value of 1 if a firm is investigated by the SEC in that year, and 0 otherwise. We then merged it with trust data from GSS and financial information from the Compustat and CRSP database. Our final sample consists of 35,975 firm-year observations over the period of 1992–2016. The AAER dummy is then regressed on TRUST and control variables, while controlling for firm and year fixed effects, and standard errors are clustered at the firm level.[8] Panel A of Table 7 reports the results. We find that TRUST is negatively correlated with AAER enforcement actions, which suggests that trustworthy CEOs are less likely to engage in fraudulent financial reporting.

Our analysis rests on the premise that CEO trustworthiness affects investors' reactions to buyback news and long-term returns. To the extent that CEOs are raised in places with low trust or move across states with different levels of trust during their lifetime, measurement bias enters into our trust measure. While it is difficult to obtain data on the birthplaces of CEOs or perfectly track the movement of CEOs throughout their careers, we hypothesize that CEO tenure at a company should moderate the trust-announcement returns we documented. In particular, CEOs who work in high-trust areas for a longer period of time are more likely to have accepted the values of the area.[9]To implement this idea, we moderate our

[8]For the AAER regression, we adopt the linear probability model and use the OLS method to estimate the regression. The benefit of using the linear probability model is that it can easily accommodate firm fixed effects to absorb any time-invariant unobservable firm characteristics that might affect financial reporting behavior. However, as the dependent variable is an indicator, we re-estimate the regression using a logit model. We estimate the logit model with firm and year fixed effects using the STATA command xtlogit. Two things are worth noting. First, Stata will automatically drop observations if there are no within-group variations in the outcome variables. In other words, only firms with at least one violation are retained in the estimation. This will reduce the number of observations. Second, xtlogit cannot accommodate clustering at firm level. Therefore, we have to calculate bootstrapped standard errors. The results (untabulated) show that our conclusion is not affected by this alternative specification.

[9]Note that we assume that the company has been located in the county long enough that the trust level of the county measures the CEO trustworthiness. This is a realistic assumption considering that corporations seldom change headquarters location given the transaction costs involved. Chow, Huang, Klassen, and Ng (2022) examine headquarters relocation within the United States over the sample

TABLE 7

Validation of Trust Measure

The sample period in Table 7 ranges from 1992 to 2016. Panel A reports the results where we regress AAER dummy on TRUST and control variables in a firm-year sample. The regression sample is constructed at the intersection of Accounting and Auditing Enforcement Release (AAER) information from the SEC website, trust data from GSS and financial information from the Compustat and CRSP database. Panels B and C report the results using the alternative measures of trust for our share buyback sample. We estimate all regressions using OLS. All continuous variables are winsorized at 1%. All variables are defined in Appendix B. The table contains the same set of controls as Table 3. Intercepts are included but unreported. The *t*-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance of coefficients (2-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity.

Panel A. Corporate Misreporting

	(1) AAER
TRUST	−0.003 (−1.75)*
Controls	Yes
No. of obs.	35,975
R^2	0.322
Firm FE	Yes
Year FE	Yes

Panel B. Employee Trust of Managers

	(1) ADJ_RET5
EMPLOYEE_TRUST	0.003 (1.67)*
Controls	Yes
No. of obs.	139
R^2	0.681
Industry FE	Yes
Year FE	Yes

Panel C. CEO Integrity

	(1) ADJ_RET5
INTEGRITY	0.001 (2.49)**
Controls	Yes
No. of obs.	4,235
R^2	0.082
Industry FE	Yes
Year FE	Yes

main specifications to include TRUST × CEO_TENURE, and we obtain CEO tenure information from Execucomp. Our sample size drops to 5,092 observations for the buyback sample because of the unavailability of tenure information from the database. Table 8 shows that CEO tenure alone does not affect long-run returns. However, the coefficients are positive and significant at the 10% level for TRUST × CEO_TENURE. The results suggest that the longer the CEOs are situated in high trust areas, the more trustworthy they will be.

period of 1998 to 2018, and they find that only 2.2% of firms in the Compustat (excluding financial firms) change corporate headquarters. In our sample, out of 7,649 buyback announcements, only 222 announcements associated with 166 firms involve firms that change corporate headquarters. To mitigate the concern that corporate relocation affects our trust measure, we re-estimate the long-run announcement effect excluding those 222 announcements. The results (not tabulated) show our conclusion remains unaffected.

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TABLE 8

Trust and CEO Tenure

The sample period in Table 8 ranges from 1992 to 2016. We estimate all regressions using OLS. All continuous variables are winsorized at 1%. All variables are defined in Appendix B. Intercepts are included but unreported. The table contains the same set of controls as Table 3. The *t*-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance of coefficients (2-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity.

	ADJ_RET5			
	1	2	3	4
TRUST	0.000	0.000	0.000	0.000
	(0.71)	(0.20)	(0.51)	(0.06)
TRUST × CEO_TENURE	0.000	0.000	0.000	0.000
	(1.82)*	(1.75)*	(1.74)*	(1.69)*
CEO_TENURE	−0.000	−0.000	−0.000	−0.000
	(−0.93)	(−0.84)	(−0.87)	(−0.78)
Controls	Yes	Yes	Yes	Yes
No. of obs.	5,092	5,092	5,092	5,092
R^2	0.120	0.126	0.115	0.120
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

We demonstrate the robustness of our results using 2 alternative measures of trust. The first measure is the employee trust of managers. The assumption is that the trust of the CEO is based on his record of respecting implicit contracts with employees and that such a CEO is more likely to respect implicit contracts with others (i.e., shareholders). We measure CEO trustworthiness using the employee satisfaction survey administered by the Great Place to Work Institute and published in Fortune's 100 Best Companies to Work for in America. This survey covers topics such as attitudes toward management, job satisfaction, fairness, and camaraderie. Across all levels of employees, 250 are randomly selected from each firm to anonymously complete the surveys and return them directly to the Institute. It is important to emphasize that Fortune has no involvement in the evaluation process that could create bias toward those companies that advertise with Fortune. We intersect our buyback sample with this trust measure, which results in a much smaller sample of only 139 event-year observations. Panel B of Table 7 reports the results. Despite a reduced sample, which weakens the power of our tests, a positive association between long-run returns and EMPLOYEE_TRUST is found, with the results highlighting that trustworthy CEOs exhibit consistent behavior toward employees and shareholders.

Finally, Li et al. (2020) propose an alternative measure of corporate culture using machine learning techniques to analyze earnings call transcripts. In particular, they focus on the Q&A section of the earning call transcripts from 2001 to 2018, and they use a neural network model to classify words into 5 different categories of corporate culture, namely, integrity, respect, innovation, quality, and teamwork. Accordingly, they find that a strong corporate culture is associated with better firm performance and corporate decisions. To further mitigate the potential measurement problem of our measure for trustworthiness, we re-estimate our regression using their measure.[10] The presumption is that the choice of words during a

[10]We thank Rui Shen for sharing the data with us.

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conference call reflects the prevailing values of a manager. That is, trustworthy managers are more likely to use words that convey the values in which they believe. Using this alternative measure of trust, the results in Panel C of Table 7 suggest that CEOs with high integrity generate better long-run abnormal returns.[11]

V. Robustness Tests

The GSS extracts a nationally representative sample with every wave, thus capturing the diversity in opinions across all American demographics. Although the number of participants and survey response rate may vary across time, there is no reason to believe that the sampling method introduces a systematic bias in our results. However, to mitigate such concerns, we conduct several additional tests. First, to ensure that our results are not driven by firms located in small counties that happen to be sampled by GSS in a particular year, we repeat our analysis focusing on firms located in large counties[12]. Table 9, Panel A indicates that our inference remains the same[13]. Second, to mitigate the concerns that our measures may be affected by the differences in survey response rates across counties, we repeat our analysis using weighted least square regression in which the weight is the number of responses to the GSS survey scaled by the county population. This process essentially assigns greater weight to observations with a higher response rate. The results in Panel B reveal that our conclusions are, for the most part, the same. That is, trust is positively associated with abnormal returns in 3 out of 4 regressions for buyback announcements. Third, the GSS does not measure the trust level in every period. In our baseline test, we linearly interpolate the estimates. As a robustness test, we focus on observations for which we have a direct measurement of trust. Although our sample size is reduced by approximately 60%, our main results still hold. The results in Panel C show that TRUST is significantly (at the 1% level) related to long-term excess returns in all model specifications. The economic impact of TRUST on long-term excess returns is now larger than those in Table 3 in 3 out of the 4 regression specifications. Hence, measuring TRUST correctly increases its economic impact, a result that should not be surprising. Fourth, we use the trust dummy variable as our main measure for ease of interpreting interaction variables. We perform robustness tests using the continuous trust variable. The results in Panel D

[11] A CEO's integrity measure is developed from Li et al. (2020), and it captures both integrity-related words and respect-related words from earnings conference calls. We include respect-related words because the authors' definition of respect captures words associated with corporate culture and attitude toward employees and stakeholders. Our results remain significant at the 10% level if we only include integrity-related words from Li et al. (2020).

[12] We define large counties are those with population above median in a year.

[13] To mitigate the concern that our results might be driven by a few firms located in high trust counties, we re-estimate our regressions using the following subsamples. First, we re-estimate our regressions by excluding the top 20 most populous counties in a year. If large firms are more likely to locate in populous counties, this robustness test focuses on a subsample of firms that are not located in big cities. This approach should to a large extent alleviate concerns that our results are driven by a handful of firms. Second, we re-estimate our regressions by excluding the top 20 counties with the largest number of firms for each of the high and low trust subsamples. Our inference remains robust for both approaches, albeit with a smaller sample size.

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TABLE 9
Robustness Tests

The sample period ranges from 1992 to 2016. We estimate all regressions using OLS. All continuous variables are winsorized at 1%. All variables are defined in Appendix B. Intercepts are included but unreported. The table contains the same set of controls as Table 3. The *t*-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance of coefficients (2-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity.

	ADJ_RET5			
	1	2	3	4
Panel A. Keep Only Big Counties				
TRUST	0.002	0.002	0.002	0.002
	(3.92)***	(2.92)***	(3.86)***	(2.90)***
Controls	Yes	Yes	Yes	Yes
No. of obs.	5,625	5,625	5,625	5,625
R^2	0.103	0.107	0.101	0.105
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Panel B. Weight by Survey Response Rate				
TRUST	0.001	0.001	0.001	0.001
	(2.08)**	(1.74)*	(1.98)**	−1.63
Controls	Yes	Yes	Yes	Yes
No. of obs.	7,649	7,649	7,649	7,649
R^2	0.133	0.136	0.132	0.135
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Panel C. No Interpolation				
TRUST	0.002	0.002	0.002	0.002
	(3.86)***	(3.28)***	(3.86)***	(3.29)***
Controls	Yes	Yes	Yes	Yes
No. of obs.	2,182	2,182	2,182	2,182
R^2	0.113	0.118	0.112	0.117
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Panel D. Continuous Trust Measures				
TRUST_C	0.001	0.001	0.001	0.001
	(2.96)***	(2.17)**	(2.85)***	(2.13)**
Controls	Yes	Yes	Yes	Yes
No. of obs.	7,649	7,649	7,649	7,649
R^2	0.101	0.103	0.098	0.1
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Panel E. Control for State Economic Conditions				
TRUST	0.001	0.001	0.001	0.001
	(3.13)***	(2.72)***	(3.03)***	(2.68)***
Controls	Yes	Yes	Yes	Yes
No. of obs.	7,649	7,649	7,649	7,649
R^2	0.11	0.112	0.107	0.109
State FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Panel F. Control for Governance Quality				
TRUST	0.002	0.001	0.001	0.001
	(3.41)***	(2.61)***	(3.14)***	(2.43)**
E-INDEX	−0.000	−0.000	−0.000	0
	(−0.58)	(−0.30)	(−0.07)	-0.19
Controls	Yes	Yes	Yes	Yes
No. of obs.	4,238	4,238	4,238	4,238
R^2	0.144	0.151	0.138	0.144
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

(continued on next page)

TABLE 9 (continued)
Robustness Tests

Panel G. Control for CEO Compensation				
TRUST	0.001 (3.00)***	0.001 (2.24)**	0.001 (2.80)***	0.001 (2.07)**
TOTAL_COMP	−0.001 (−2.13)**	−0.001 (−2.12)**	−0.001 (−3.72)***	−0.001 (−3.77)***
%EQUITY	0.002 (1.80)*	0.002 (1.66)*	0.002 (2.13)**	0.002 (2.02)**
DELTA	−0.000 (−0.69)	−0.000 (−0.56)	−0.000 (−1.39)	−0.000 (−1.30)
VEGA	0 −0.57	0 −0.08	−0.000 (−0.16)	−0.000 (−0.69)
Controls	Yes	Yes	Yes	Yes
No. of obs.	4,838	4,838	4,838	4,838
R^2	0.127	0.134	0.123	0.13
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

show that our conclusions are not affected. Fifth, we control for an array of county-year level sociodemographic controls in all the regressions, and to further mitigate the concern that our results are confounded by omitted correlated sociodemographic variables or state-level economic conditions, we further include state fixed effects. In other words, we perform within-state, industry and year comparisons between firms led by high and low trustworthy CEOs. The results in Panel E indicate that our conclusions are not affected.

Our main specification uses institutional ownership as the main proxy for governance quality, mainly because ownership data are widely available for many firms. Our sixth robustness test further controls for the difference in governance quality, measured by the entrenchment index (Bebchuk, Cohen, Ferrell (2009)). Panel F reports the results, and our conclusions are not affected. Next, to mitigate concerns that trust might be associated with CEO compensation, we control for different dimensions of CEO compensation structures such as total compensation, the percentage of equity compensation, and compensation incentives measured by portfolio delta and vega. Panel G shows that we continue to find consistent results.

As a final robustness test, we examine equity issues. We test whether short- and long-term excess returns after equity issues are related to the trustworthiness of CEOs. Equity issues could reveal *agency costs of free cash flow* problems; for example, managers issue equity to obtain more free cash flow, which may be wasted on negative NPV projects (Jensen (1986)). In such a case, trusted managers are less likely to engage in shareholder value-destroying activities, meaning that, as in the case of buybacks, excess returns will be *positively* related to trust. However, managers could also be driven by *market timing* because managers who believe their shares are overvalued are incentivized to issue overvalued stock to benefit long-term shareholders (shareholders who are locked in because of control considerations or other restrictions). To the extent that markets underestimate the extent of overvaluation, long-term excess returns will be negative. Loughran and Ritter (1995) and Spiess and Affleck-Graves (1995) are the first to document

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evidence that equity issues are followed by negative long-term excess returns in the U.S. Baker and Wurgler (2002) contend that market timing is the first-order determinant of capital structure. According to this market timing hypothesis, managers who are concerned about the wealth of the current long-term shareholders should issue shares when they are not undervalued or possibly overvalued. This market timing hypothesis predicts a *negative* relation between long-term returns and trust. In other words, it is not obvious whether returns after equity issues will be positively or negatively related to trust ex ante. This ambiguity makes equity issues an ideal contrasting event with buybacks. Our sample consists of 2,407 equity announcements made by 1,418 firms during the period of 1992–2016.

Consistent with the ambiguous prediction of the relation between trust and returns, we find no significant relation between our proxies for trust and short- or long-term announcement returns following equity issues (untabulated). This ambiguity also suggests that the trust variable is not simply some risk factor that is omitted from long-term event studies.

VI. Conclusion

Firms that announce share repurchase programs and are run by trustworthy CEOs experience statistically significantly higher long-term excess returns. This conclusion is supported using 3 different proxies for trustworthiness, namely, county-specific trust, employee trust, and CEO integrity measured from linguistic analysis. Together with indicators of the likelihood of undervaluation (the U-index), trust is the most consistent predictor of long-term excess returns. When firms state in press releases that they are buying back stocks because of undervaluation, their statement is more credible when announced by a trustworthy CEO, as long-term excess returns are significantly larger. Trust and the likelihood of undervaluation (measured by the U-INDEX) are complements; after share buybacks, independent of the level of trust, high-U-index firms always experience larger excess returns than low-U-index firms.

This article is part of a growing body of literature showing that investors care about trust when assessing whether shareholder value maximization drives managerial decisions. In the context of buybacks, this is particularly relevant because repurchases can be driven by bad and good motivations. This finding means that the agency costs of equity and information asymmetry can be reduced by not only designing explicit contracts or costly signaling mechanisms, but also promoting implicit contracts. In the U.S., managers have an implicit contract to maximize shareholder value. However, such a contract is more likely to be enforceable or upheld by a trustworthy CEO.

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Appendix A. Examples of Buyback Announcements and Buyback Reasons Coding

Company	Date	Announcements or Press Releases	Buyback Reasons Coding
Only One Reason Provided			
Alltrista Corporation	23 Mar. 1999	INDIANAPOLIS, March 23/PRNewswire/ – Alltrista Corporation's (NYSE: ALC) board of directors today authorized the repurchase of up to 500,000 shares of the company's common stock. Thomas B. Clark, president and CEO, said the repurchase authorization represents 7.4% of the company's outstanding common stock. "Management and the directors agree that, although we are implementing an aggressive growth strategy, Alltrista shares are significantly undervalued and that a share repurchase program represents a wise use of shareholder funds at current price levels," said Mr. Clark.	Undervaluation
Acme United Corporation	23 Jan. 2008	FAIRFIELD, Conn. – (BUSINESS WIRE) – Acme United Corporation (AMEX:ACU) announced today that its Board of Directors approved a new stock repurchase program of up to 150,000 common shares. Walter C. Johnsen, Chairman and CEO, said, "We are pleased to announce this buy-back program as it demonstrates management's commitment to build long term shareholder value."	Reduce Agency
Procter & Gamble Co.	27 Mar. 1995	CINCINNATI (Reuters) – Procter & Gamble Co. said Monday it will repurchase 4 to 5 million shares of its common stock to eliminate any dilution of per-share earnings resulting from management compensation programs.	EPS Management
Emerson Electric Co.	6 May 2008	Dow Jones News Service, 11:53 PM, 6 May 2008, 97 words, (English). DOW JONES NEWSWIRES Emerson Electric Co. (EMR) said Tuesday its board approved the repurchase of up to 80 million shares over the next 4–5 years.	Not Stated
Harman International Industries Inc.	14 Mar. 2005	SAN FRANCISCO, March 14 (Reuters) – Harman International Industries Inc. (HAR.N), a maker of professional and consumer audio products, said on Monday it has reinitiated a previously announced program to repurchase its own stock.	Extend Buyback
Multiple Reasons Provided			
Lattice Semiconductor Corporation	21 Oct. 2010	HILLSBORO, Ore., Dec. 6 (Reuters) – Logic device maker Lattice Semiconductor Corp. said on Wednesday its board authorized the company to repurchase up to 5 million shares of its common stock. Hillsboro, Ore.-based Lattice said repurchased shares will be used to offset dilution due to the exercise of employee stock options. The purpose of the stock repurchase program is to manage dilution and to effectively utilize our cash balances to increase shareholder value. The program itself reflects our Board of Directors' and management's continuing commitment to our shareholders.	EPS Management, Reduce Agency
Anheuser-Busch	24 July 1996	St. Louis, MO., 24 July 1996 – The Board of Directors of Anheuser-Busch. Companies, Inc. has approved a new 25 million share repurchase authorization, "These actions reflect Anheuser-Busch's record results for the first 6 months of 1996 and confidence in the future growth and performance of the company. We are better positioned than ever to achieve increased industry leadership, double-digit earnings per share growth and enhanced shareholder value," Mr. Busch said. These actions are also consistent with Anheuser-Busch's well-defined priorities for its operating cash flow: • Reinvestment in core businesses to achieve profitable growth. • Repurchasing shares of common stock. • Increasing dividends to shareholders.	Undervalue, Reduce Agency

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Appendix B. Variable Definitions

TRUST: TRUST was constructed from the General Social Survey (GSS). The survey asks whether people can be trusted, and respondents can answer "can be trusted" (assigned a value of 3), "can't be trusted" (assigned a value of 1), or "depends or don't know" (assigned a value of 2). We then take the average across all of the respondents from one county to obtain a county-level measure of trust for each year. When the trust measure is not available for a year, we interpolate the value from the most recently available value. TRUST is an indicator variable that takes a value of 1 if the value is above median across all counties (nationwide), and 0 otherwise.

ADJ_RET5: We calculate long-term announcement returns using the Fama and French (2015) 5-factor model. We obtain estimates of the long-run risk-adjusted returns for individual firms in the spirit of Brennan, Chordia, and Subrahmanyam (1998) as follows: For a given stock in a given calendar month, the one-factor risk-adjusted return is computed as the risk-free rate of return plus the residual from a regression of the stock's excess return on the Fama–French 5-factor model. Risk-adjusted returns are then averaged over the 48 months following the announcement date to obtain the risk-adjusted average monthly returns.

UNDERVALUE: An indicator variable that takes a value of 1 if a company mentions the following keywords in the news article announcing the buyback: "undervalue," "future growth," "gain in long run," "confidence in future prospects," "underperform," "low share price," "share price is cheap," and "growth in the long run."

REDUCE_AGENCY: An indicator variable that takes a value of 1 if a company mentions the following keywords in the news article announcing the buyback: "commitment to shareholder value," "return cash to shareholders," "good use of cash," "increase shareholder value," and "improve shareholder value."

EPS_MGT: An indicator variable that takes a value of 1 if a company mentions the following keywords in the news article announcing the buyback: "strengthen EPS," "avoid dilution," "reduce number of shares," and "provide shares for use in executive compensation."

EXTEND_BUYBACK: An indicator variable that takes a value of 1 if a company mentions the following keywords in the news article announcing the buyback: "extension of buyback," "expansion of buyback," and "authorized additional buyback."

NOT_STATE: An indicator variable that takes a value of 1 if a company does not state the reasons for buyback.

PRIOR_RETURNS: Stock return in the 6 months before buyback or equity issue announcements.

LOG_MKTCAP: Log of equity market capitalization.

BTM: Book-to-market value of equity.

U-INDEX: We calculate the U-index as follows: Companies receive a size score from 1 (large firms) to 5 (small firms) depending on the quintile of their market value of equity in the month before the buyback announcement. We then calculate the 11-month absolute returns of months −12 to −1 before the announcement for all events and assign scores of 5 to the low-return firms and 1 to the high-return firms.

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Finally, companies receive a book-to-market value (BE/ME) score depending on the quintile of their BE/ME of equity in the year before the buyback announcement, with small BE/ME firms receiving a score of 1 and large BE/ME firms receiving a score of 5. Similar to Peyer and Vermaelen (2009), we use CRSP companies to define the quintile thresholds each month. The U-index is the sum of the size *s* and the book-to-market and momentum scores.

LEVERAGE: Short-term debt plus long-term debt, divided by total assets.

IO: Percentage of outstanding shares owned by institutional investors.

CAPEX: Capital expenditure over total assets.

PAYOUT: Common dividend, all scaled by total assets.

ROA: Income before extraordinary items, scaled by lagged total assets.

LIQUID_ASSETS: Current assets minus current liability, scaled by total assets.

IDIO_RISK: Idiosyncratic volatility measured by $(1 - R^2)$, where R^2 is the goodness of fit from the regression of daily returns over the previous 6 months on the Fama–French 5-factor model.

VOLATILITY: Daily standard deviation of returns during the previous 6 months.

RELIGIOSITY: Percentage of religious adherents at the county level. When the measure is not available in a year, we interpolate the value from the most recently available value.

POPULATION: Total population at the county level according to the U.S. Census. When the measure is not available in a year, we interpolate the value from the most recently available value.

%FEMALE: Percentage of females in the county-level population. When the measure is not available in a year, we interpolate the value from the most recently available value.

EDUCATION: Percentage of population with at least a bachelor's degree at the county level. When the measure is not available in a year, we interpolate the value from the most recently available value.

INCOME: Income per capita at the county level. When the measure is not available in a year, we interpolate the value from the most recently available value.

INCOME_INEQUALITY: Blau Index of income at the county level. Blau index $= 1 - \sum_{i=1}^{k} p^2$, where p is the percentage of people residing in the county that fall in the income category *i*. We have 15 income categories: families with income of less than $10,000, with income between $10,000 and $14,999, with income between $15,000 and $19,999, with income between $20,000 and $24,999, with income between $25,000 and $29,999, with income between $30,000 and $34,999, with income between $35,000 and $39,999, with income between $40,000 and $49,999, with income between $45,000 and $49,999, with income between $50,000 and $74,999, with income between $75,000 and $99,999, with income between $100,000 and $124,999, with income between $125,000 and $149,999, with income between $150,000 and $199,999, and with income above $200,000. When the measure is not available in a year, we interpolate the value from the most recently available value.

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ETHNICITY : Percentage of white population at the county level. When the measure is not available in a year, we interpolate the value from the most recently available value.

%VOTE_DEMOCRATS: Percentage of votes cast for a Democratic president. When the measure is not available in a year, we interpolate the value from the most recently available value.

TRUST_C: Trust constructed from the GSS. The survey asks whether people can be trusted, and respondents can answer "can be trusted" (assigned a value of 3), "can't be trusted" (assigned a value of 1), or "depends or don't know" (assigned a value of 2). We then take the average across all of the respondents from one county to obtain a county-level measure of trust for each year. When the trust measure is not available in a year, we interpolate the value from the most recently available value.

CEO_TENURE: Number of years that an executive is a CEO of a firm.

AAER: An indicator variable that takes a value of 1 if a company is subject to SEC Accounting and Auditing Enforcement Releases enforcement actions in year *t* and 0 otherwise.

EMPLOYEE_TRUST: Log of employee satisfaction ranking from Fortune 100 Best Company to Work for in America.

INTEGRITY: An indicator variable that takes value of 1 if a CEO's integrity is in the top tercile in a year. CEO's integrity is developed from Li et al. (2020), which captures integrity-related words and respect-related words from earnings conference calls.

E-INDEX: Based on 6 provisions, 4 of which constitute limitations on shareholders' voting power, and the remaining 2 are measures against hostile takeover.

TOTAL_COMP: Log of total compensation.

%EQUITY: Value of restricted stock grants plus the value of option grants, scaled by total compensation.

DELTA: Log of the dollar change in wealth associated with a 1% change in the firm's stock price. Obtained from Coles, Daniel, and Naveen (2006), (2013).

VEGA: Log of the dollar change in wealth associated with a 0.01 change in the standard deviation of the firm's returns. Obtained from Coles, Daniel, and Naveen (2006), (2013).

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