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The value of corporate culture ☆

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ABSTRACT

We study which dimensions of corporate culture are related to a firm's performance and why. We find that proclaimed values appear irrelevant. Yet, when employees perceive top managers as trustworthy and ethical, a firm's performance is stronger. We then study how different governance structures impact the ability to sustain integrity as a corporate value. We find that publicly traded firms are less able to sustain it. Traditional measures of corporate governance do not seem to have much of an impact.

1. Introduction

Resigning from Goldman Sachs, vice president Greg Smith wrote in a very controversial *New York Times* op-ed: "Culture was always a vital part of Goldman Sachs's success. It revolved around teamwork, integrity, a spirit of humility, and always doing right by our clients. The culture was the secret sauce that made this place great and allowed us to earn our clients" trust for 143 years". He then adds "I am sad to say that I look around today and see virtually no trace of the culture that made me love working for this firm for many years." In his follow-up book, Greg Smith seems to blame the demise of Goldman Sachs's culture to its transformation from a partnership to a publicly traded company.

While highly disputed by the company,[1] Greg Smith's remarks raise several important questions. What constitutes a firm's culture? How can we measure it? Does this culture—however defined and measured—impact a firm's success? If so, why? And how can different governance structures enable or curtail the formation and preservation of a value-enhancing culture? In this paper we try to answer these questions.

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[1] Despite Smith's claims, Goldman Sachs remains one of the top 100 Best Companies to Work For according to the average opinion of the employees surveyed by Great Places to Work Institute (GPTWI).

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Whether culture was Goldman's secret sauce or not, Goldman certainly went out of the way to advertise it. The first page of its Initial Public Offering (IPO) prospectus was enumerating the "Business Principles." including "Integrity and honesty are at the heart of our business." Yet, in this regard, Goldman is not unique. When we look at companies' Web pages, we find that 85% of the Standard and Poor's 500 (S&P 500) companies have a section (sometimes even two) dedicated to—what they call—"corporate culture," i.e., principles and values that should inform the behavior of all the firms' employees. The value we find more commonly advertised is innovation (mentioned by 80% of them), followed by integrity and respect (70%). When we try to correlate the frequency and prominence of these values to measures of short- and long-term performance, however, we fail to find any significant correlation. Thus, *advertised* values do not seem to be very important, possibly because it is easy to claim them, so everybody does. Thus, is there another, more meaningful way, to measure values?

To this purpose we use a novel data set created by the Great Place to Work® Institute (GPTWI), which conducts extensive surveys of the employees of more than 1,000 U.S. firms. While only the list of the best 100 firms to work for is publicly disclosed, we have access to the full database. The advantage of this database is that it measures how values are perceived by employees, rather than how they are advertised by the firm. In particular, there are two questions in the survey that measure the level of integrity of management as perceived by the employees.

When we use these measures we find that high levels of perceived integrity are positively correlated with good outcomes, in terms of higher productivity, profitability, better industrial relations, and higher level of attractiveness to prospective job applicants. These effects are also economically relevant: a one standard deviation increase in integrity is associated with a 0.19 standard deviation increase in Tobin's *q*, a 0.09 standard deviation increase in profitability, and a 0.24 standard deviation decline in the fraction of workers that are unionized.

Since these statements are part of a longer survey instrument, we are concerned that there might be some "halo" effect, which might contaminate all the answers. In companies that pay more, for example, employees may tend to be happier and all the answers may tend to be more positive. To address this problem, we use as controls responses to questions that, though containing the halo effect, in theory are orthogonal to the integrity question, such as the answers to statements like "This is a physically safe place to work" or "I can be myself around here". The correlation of integrity with positive outcomes survives these controls.

While these correlations do not prove causation, they suggest that companies' obsession with corporate culture might be justified, as some models have tried to capture. In O'Reilly (1989) and Kreps (1990), corporate culture is considered relevant because employees face choices that cannot be properly regulated ex ante. Thus, corporate culture acts as a constraint. In Erhard, Jensen, and Zaffron (2007), adherence to integrity acts as a commitment not to engage in economic calculations. In this way, for example, an employee will not trade off customers' satisfaction for larger profits today. Thus, maintaining a culture of integrity can have some short-term costs (the forgone profit today), but also long-term benefits.

If a culture of integrity is valuable, why do some firms end up losing it? We know from Edmans (2011) that firms included in the 100 "best firms to work for" (as measured by the GPTW ranking) tend to have a higher future abnormal stock market return. Since integrity and trust play a role in the determination of being named one of the 100 best, we can interpret this result as saying that the market initially underestimates the value of the integrity capital and only over time—as the profits come in—appreciates its value.

If this is true, it might be value-maximizing (at least in the short term) for publicly traded firms to underinvest in integrity capital. To test this hypothesis, we analyze whether ceteris paribus publicly traded firms in the GPTWI data set have a lower value of integrity (as measured by the survey responses) than privately held ones. We find this to be the case, even after controlling for industry, geography, size, and labor force composition. Public firms have an integrity value that is 0.21 standard deviations below similar firms that are private.

Not all firms see their integrity drop when they go public. Venture capital-backed firms do not seem to experience any drop. This different outcome might be the result of a longer horizon generated by the presence of a large shareholder or by a better organizational design made by professional founders.

To disentangle these hypotheses, we test whether the presence of a large shareholder or other corporate governance characteristics affect the level of integrity capital. We find that the only corporate governance characteristic that is statistically significant is the presence of a large shareholder (at least 5% ownership share), yet it has a *negative* correlation with the level of integrity. Thus, it looks like a focus towards shareholders' value-maximization undermines the ability of a company to sustain a high level of integrity capital.

The rest of the paper proceeds as follows. Section 2 introduces the theoretical background of the analysis. Section 3 describes the set of values advertised by S&P 500 companies. Section 4 presents the main data used. Section 5 discusses how we deal with the econometric problems created by a potential halo effect. Section 6 presents the correlation between integrity and firm's performance measures. Section 7 explores the relation between integrity and several governance variables. Section 8 concludes.

2. Theoretical framework

2.1. Definition of corporate culture

There are several definitions of corporate culture. One view (see, for example, Cremer, 1993) is that culture represents the unspoken code of communication among members of an organization. A related view is that culture is a convention that helps coordination, like which side of the road we drive on. The managerial literature focuses on

the notion of culture as "a set of norms and values that are widely shared and strongly held throughout the organization" (O'Reilly and Chatman, 1996). In this literature the function played by culture is that of "social control." According to O'Reilly (1989), most individuals care about the people who surround them. Thus, if we share a common set of expectations with the people we work with, we are under their control whenever we are in their presence. In this respect, culture complements more traditional control systems, such as incentives. This notion is close to Kreps (1990) and Erhard, Jensen, and Zaffron (2007), who emphasize one particular value: integrity, defined as "the quality or state of being complete; in an unbroken condition; sound".

We choose to use the O'Reilly and Chatman (1996) definition for two reasons. First, this definition is similar to the one now prevailing in neoclassical economic models that use culture (e.g., Guiso, Sapienza, and Zingales, 2008, 2011; Tabellini, 2008). Second, this value component of culture is easier to measure and thus facilitates our empirical task.

However, there is a difference in the way these values can be interpreted. In Kreps (1990), corporate values are simply the reputation that a company has developed over time. Thus, corporate culture does not change the preferences of individuals; it only alters their incentives in a repeated game. By contrast, in Hodgson (1996), a corporate culture is able to modify the preferences of individuals and induce them to internalize some norms.

2.2. Why culture might matter

To study the potential effect of culture, we need to be clear on why this culture might matter. Both in O'Reilly (1989) and Kreps (1990), culture is considered relevant because employees will face choices that cannot be properly regulated ex ante.

Think about a firm with a reputation for impeccable customer-care. Both managers and employees are tempted to save on the effort necessary to provide the best care. Offering the best effort is costly and the probability of being detected is minimal, especially if the shirking is only partial: it is hard to prove that the care was only slightly subpar. Furthermore, the negative consequences of a reduced reputation will not be felt right away. One bad episode can hardly destroy a long-standing reputation of excellence. Hence, without the proper motivation, managers and employees are likely to skimp on the quality of their services.

Even if the board anticipates this problem, it is hard to design the proper incentive contracts. The observable outcome (reputation vis-à-vis the customers) is slow-moving and small violations are difficult to detect. How can a firm sustain a reputation of impeccable service?

A solution is to raise impeccable service to the level of a "value" that needs to be respected at *all* times, not a goal that is traded off against other goals. The advantage of elevating this principle to the level of value is threefold. First, by advertising it as a company's value, a firm is more likely to attract and retain people who share this value or—at the very minimum—have a lower cost to live and operate by this value. Second, by promoting top customer service as a value, it makes it clear to the employees that the company accepts no compromises on this front: it is a commitment not to engage in economic calculations. In this way, for example, an employee will not trade off the customer satisfaction with a larger profit.

Finally, promoting top customer service as a value facilitates its establishment as a norm inside the firm. The enforcement of social norms differs in several ways with respect to the enforcement of legal norms. To be enforceable, legal contingencies need to be verifiable in court. By contrast, it is sufficient that a contingency be observable for a social norm to be enforceable. An employee with a negative attitude towards customers can hardly be sanctioned in court, but he can easily be shunned by colleagues. Precisely because the judgment and the punishment are administered by the community, not by a court of law, social norms should be very coarse, so that the detection of a violation is relatively easy.

Last but not least, for a social norm to be enforced it must be shared by most people in a community. In particular, in a firm it must be shared and followed by who is at the top. This is really a case of "lead by example".

Social norms have typically less enforcement power than legal norms. A violation of a legal norm can lead to harsh punishments, such as incarceration and (in some countries) even to death. The violation of a social norm leads to lesser consequences, such as ostracism from the community. In spite of this limited punishment, social norms can help ameliorate moral hazard problems inside organizations.

Moral hazard in organizations is twofold. There is a moral hazard at the top: top managers are tempted to renege on their commitment to reward firm-specific investments made by the employees (Shleifer and Summers, 1988). There is also a moral hazard inside the organization: employees want to save on effort because they do not fully internalize the benefits this effort brings to the organization. This lack of internalization is partly due to the inability to measure the employees' marginal productivity and, thus, to reward them appropriately through contracts.

A culture of "keeping your word" can help alleviate both these problems. On the one hand, a top management that keeps its word validates this behavior as a corporate norm, facilitating social enforcement of the integrity norm among the employees and, in so doing, ameliorating the employees' moral hazard problem. On the other hand, knowing that a breach of trust will lead to a collapse of corporate norms, the top management will be reluctant to act in an opportunistic way vis-à-vis the older employees, who have sunk their human capital in firm-specific investments.

Not only does this link explain why a culture of "keeping your word" can lead to higher performance, but it also provides us with an opportunity to measure it. Since what matters is the perception of senior management by the employees, the effectiveness of a social norm can be measured by asking the employees' view of whether top managers in the firm "keep their word".

2.3. Corporate culture in public companies

While social norms can be value-enhancing, they are not without cost. The necessity to "keep your word" restricts the flexibility of management, especially in a changing environment. This cost increases with the number of different constituencies present in a firm. In an entrepreneurial firm, the two relevant constituencies are customers and employees. When a firm goes public, there are also public shareholders, bondholders and, possibly, the public at large, if the firm is so big to become relevant in a community or state. Most importantly, in a public company the Chief Executive Officer (CEO) statements towards the shareholders can be observed by the employees as well, creating an important interaction between the public communication to the market and the private communication to the employees that may jeopardize the credibility of top managers (Farrell and Gibbons, 1989). For example, if a violation of internal norms is discovered in a public corporation, in deciding the punishment, the CEO has to send two signals: an internal one to the managers and employees that also serves as deterrent for future violations and an external one to the market that maintains transparency of internal procedures. The latter poses the risk of being (wrongly) interpreted by the market as the tip of an iceberg rather than an isolated episode, inducing the top manager to dilute the punishment and the internal message. These complications may weaken integrity norms in publicly traded companies vis-à-vis private firms.

Public ownership (and different corporate governance arrangements) changes also the trade-off between the costs and benefits of strict integrity norms. Public listing makes the stock market value of companies' shares a very salient data point. To the extent this price subsumes all relevant information, the management would want to maximize shareholder value by maintaining internal norms consistent with increased value. If, however, some assets are not considered (or underappreciated in the short term), public ownership creates a distortion in decision making.

Edmans (2011) shows that firms included in the 100 "best firms to work for" (as measured by the GPTWI ranking) have a higher abnormal stock market return in the years after the inclusion. As Edmans argues, this is evidence that the stock market underappreciates certain intangibles, in particular, the intangibles that enter into the GPTWI index. Since integrity and trust play a big role in the determination of GPTWI index, we can interpret this result as saying that the market underestimates the value of integrity capital. Consequently, a CEO who allocates company resources to maximize the *current* stock market value of a company will tend to underinvest in integrity, which in the short term has clear cost, but only limited benefit.

Finally, public ownership comes with a separation between ownership and control and the CEOs of a public corporation are not always driven solely by shareholder value-maximization, since they do not fully internalize the cost of deviating from value-maximization. As a consequence, public companies would, on average, maintain a weaker culture of integrity. Indeed, corporate governance in public corporations is the mechanism through which investors in the company assure themselves that the manager of the corporation makes decisions that maximize the return on their investment (Shleifer and Vishny, 1997). This view would imply that if a culture of integrity indeed translates into positive outcomes for the shareholders, managers of public firms with better corporate governance should maintain such corporate value. We will test empirically whether traditional measures of corporate governance quality have independent explanatory power once their public status is accounted for.

3. Advertised values

One of the functions of stating specific corporate values is to attract employees with a similar value system. Goldman, for instance, has advertised to the world (including its investors in the IPO) the importance of integrity as a value. According to Greg Smith, this value was also used aggressively in recruiting pitches. Thus, we want to start by analyzing what values corporations choose to advertise.

3.1. Description of the data collection process

To analyze the advertised values, we look at the company's Web site for the entire S&P 500 as of June 2011. A corporate Web site typically has one or more sections dedicated to the company's values, culture, and working environment. We collect all the values listed in all these sections, maintaining the wording used by the company.

Companies often identify a set of core values, each of which is further articulated and explained through other key words to clarify its meaning. We maintain this clustering of values as units of meaning, grouping all the key words used by the company to describe a single value (i.e., if a company describes the value "Integrity" with other words like "Honesty," "Ethics," "Accountability," etc., we would group all these words). The data were collected between June and October 2011, therefore, the data set reflects the Web sites' content of that period (the exact date of access is available).

Once the data collection for all S&P 500 companies was completed, we started an aggregation process to identify the main values and classify them into a few categories. To do so, we first identified the most recurring values across all companies. Starting from the top recurring value (Integrity, listed as corporate value by almost 52% of the companies), we checked all the other words that were clustered with it by each company and their frequency across companies. We took the one word that was most commonly associated with the main value (Ethics, associated with Integrity in about 34% of companies) and aggregated the two values together in a single category (unit of meaning).

Then we moved on to the second-most recurring value (Teamwork) and performed the same analysis to identify the word that was most commonly associated with it (Collaboration) and again associated the two together, creating another category. We followed this process for

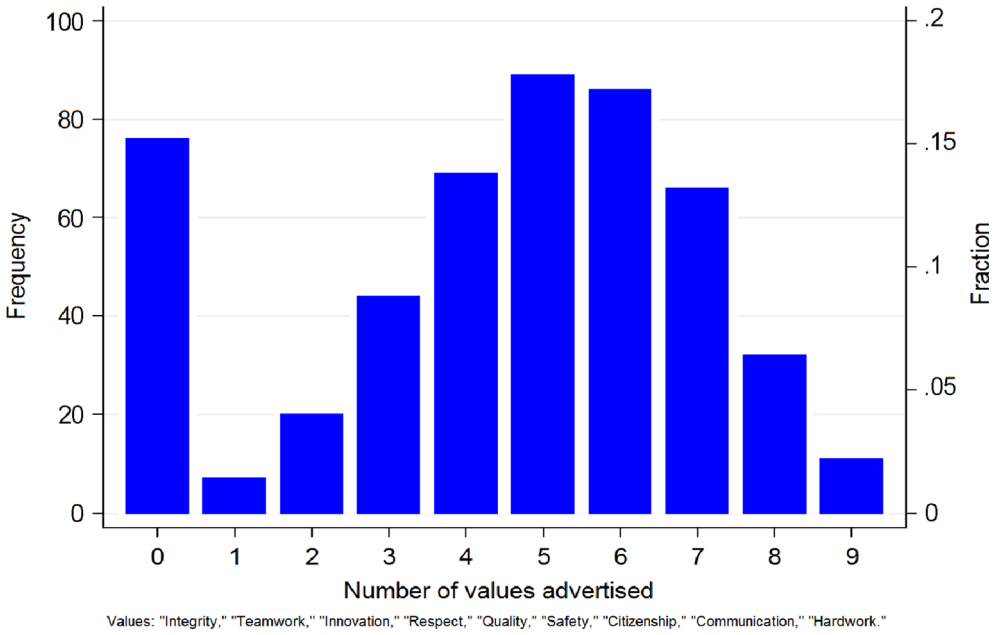

Fig. 1. Frequency of advertised values. This figure shows the frequency of advertised values by S&P 500 companies. The exact definition of the value advertised is described in Table 1.

all top 50 values, progressively aggregating them based on the word association made by companies. As we proceeded down the ranking, some values were most commonly associated with words that we had already encountered higher in the ranking (for example, Accountability is the 6th most recurring value, and its most commonly associated value is Integrity, which we had already linked with Ethics). In these cases we added the new value to the pre-existing aggregation (i.e., the category now includes three values: Integrity, Ethics, and Accountability), therefore expanding the set of words identifying a similar concept. This process allowed us to reduce a broad list of values to just a few categories that included multiple words with similar meaning, as revealed by the data.

After performing this aggregation strategy for the 50 most recurring values, nine categories or units of meaning emerged from the data:

- *Integrity* + Ethics + Accountability + Trust + Honesty + Responsibility + Fairness + Do the right thing + Transparency + Ownership.
- *Teamwork* + Collaboration/Cooperation.
- *Innovation* + Creativity + Excellence + Improvement + Passion + Pride + Leadership + Growth + Performance + Efficiency + Results.
- *Respect* + Diversity + Inclusion + Development + Talent + Employees + Dignity + Empowerment.
- *Quality* + Customer + Meet needs + Commitment + Make a difference + Dedication + Value + Exceed expectations.
- *Safety* + Health + Work/Life balance + Flexibility.
- *Community* + Environment + Caring + Citizenship.
- *Communication* + Openness.
- *Hard work* + Reward + Fun + Energy.

Finally, we created dummy variables for each of these nine categories. Companies were assigned dummy = 1 in a category if they listed any of the values part of that aggregation on their Web site. While the list does not cover the totality of values listed by all the companies, it provides a good representation of the main categories of values encountered in the data. In fact, among the companies which listed corporate values on their Web site (some had no values listed), all except one had at least one value falling into one of our categories, and most of them had five or more dummies.

Fig. 1 reports the distribution of the number of values so defined reported by each company.

3.2. What is advertised?

On average, firms in the S&P 500 sample advertise four out of the nine values in our list (see Table 2). The modal firm advertises five, but there is considerable dispersion (standard deviation of 2.5). Some firms (15% of the sample) do not advertise any value (Fig. 1) and of the seven firms that choose to advertise just one value, four choose to stress "innovation." Innovation is also the most advertised value in the whole sample—appearing in 80% of the S&P 500 firms, this is followed by integrity and respect (70%). Interestingly, quality is stressed by 60% of the S&P 500 firms while half of them cite teamwork as a value. Few firms (12 in total) advertise all the values, and almost all 89 modal firms advertise innovation and 88% also advertise integrity.

3.3. Do advertised values matter?

We cannot check directly whether advertised values lead to a better-matched workforce. Thus, one way to see

whether they matter is to check whether they have any predictive value on measures of firm performance.

Table 3 shows regressions of advertised values on various measures of performance: Tobin's *q*, return on sales, consumer satisfaction [the American Consumer Satisfaction Index (ACSI); see Fornell, Johnson, Anderson, Cha, and Everitt Bryant (1996)], and one indicator of frequency of class actions suits against the company. These measures capture firms' "success" along various dimensions that may potentially be affected by the company's predominant values. To save on space, we use only integrity and the principal component as measures of advertised values, but the results are similar if we use other values.

With one exception, we find very little evidence that advertised values are correlated with performance; there is no detectable correlation with firm profitability and Tobin's *q*, and no correlation with the frequency of class action suits. The exception, an interesting one, is the customer satisfaction index which is significantly higher among firms who advertise integrity and firms with a higher principal component of advertised values. One possibility is that advertised values are meant to talk to the firm's customers and are thus reflected on their satisfaction, but bear little correlation with the financial performance and the stock market valuation because these variables are affected by many other variables and only indirectly by customer satisfaction. Another possibility is that many of these advertised values are simply cheap talk. Since the cost of claiming on the Web values such as integrity or care of the environment is close to zero, most firms will do it, regardless of the *actual* set of values present in the organization. To explore actual values we need an alternative set of data.

4. The Great Place to Work® data set

Since the most claimed values after innovation (which has an easy-to- interpret economic meaning) is integrity, we will focus on integrity. Measuring integrity is not easy. While integrity could sometimes be in the eye of the beholder, the relevant eyes in an organization are those of the employees. Thus, ideally, we would like to measure how workers perceive that top managers uphold integrity as a value. A data set assembled by the Great Place to Work® Institute (GPTWI) fulfills this goal.[2]

The GPTWI partners with more than 5,500 relatively large companies operating in 45 countries to conduct a comprehensive annual assessment of the workplace of these enterprises. To assess a company's culture, the GPTWI collects two data sets: the Culture Audit Survey© (CAS) and the Trust Index© employee survey (TIES). CAS, typically filled out by a company representative, collects information about pay and benefits programs, corporate practices, and any other accompanying material submitted by a company. TIES measures employees' assessment of the level of trust they experience with management (credibility, respect, fairness). Through 58 statements, this survey covers a range of different topics exploring attitudes toward management, job satisfaction, fairness in the workplace, and camaraderie. For each firm analyzed, the invitation to participate in the survey is sent each year to a random sample of at least 400 employees of the company across all tenure and job levels. Each employee anonymously responds directly to the GPTWI, with a response rate of about 60%.

For the United States, the Institute elaborates a list of the "100 Best Companies to Work For®." Each January since 1998, this list has been featured in *Fortune* magazine, but there is no involvement of the magazine in the evaluation process. Any company with more than 1,000 employees operating in the US for more than seven years can submit an application to the Institute to be considered in the list. In the United States, every year roughly 400 companies complete the full application process to be considered.

Under a confidentiality agreement signed with the GPTWI, we have access to both surveys for the companies applying in the period 2007–2011, including those firms that did not make the list of 100 Best Companies to Work For. Over this five-year span, 1,072 private and publicly listed firms filled out the Culture Audit© questionnaire, for a total of 2,132 firm-year observations. We limit our analysis to for-profit companies, excluding from the sample non-profit companies and government agencies (respectively, 236 and three, for a total of 510 company-year observations). We also drop 227 firm-year observations for which the information on the end of fiscal year is missing.[3]

Our final sample consists of 679 companies, for a total of 1,367 firm-year observations, with about half of them applying to the GPTWI more than once. We match each company-year observation from the Culture Audit© database with the corresponding Trust Index© employee survey. This data set collects a repeated cross-section of 447,529 workers, where we restrict our attention to the subsample of 410,521 full-time employees. For the median firm in our sample, 244 employees are surveyed each wave between 2007 and 2011, corresponding to about 5% of its total annual workforce.

Finally, we construct a cross-sectional data set keeping only the first year a company appears in our data set to avoid understating the standard errors.[4] Out of the final sample, 294 of the 679 firms are privately held, while 385 are public companies traded on the NYSE or the Nasdaq; 191 of which are part of the Standard & Poor's 500 index.

For the purpose of this study, we focus our attention on a limited set of company-level variables collected from the Culture Audit© survey and on a set of corporate culture metrics from the Trust Index© employee survey which we aggregate to firm level. Table 1 provides a detailed description of all our variables.

[2] Questionnaire comes from research based on Levering, Moskowitz, and Katz's (1984) work.

[3] Merging the data set with Compustat/Center for Research in Security Prices (CRSP) monthly data set, we conventionally attribute fiscal year equal t to those observations whose reported end of fiscal year falls between June of year t and May of year $t+1$.

[4] To control for the difference in calendar year in which firms enter in the sample, we control for year fixed effects in all the regressions.

Table 1
Description of the variables.

The table provides a detailed description of all the variables used in our analysis. We begin presenting the variables from the Great Place to Work Culture Audit© company survey, followed by those from the Great Place to Work Trust Index© employee survey.

Variable	Description	Source database
Integrity advertised?	This variable equals one if at least one of the following words is advertised in the company's Web site: Integrity, Ethics, Accountability, Trust, Honesty, Responsibility, Fairness, Do the right thing, Transparency, Ownership.	Company's Web page
Teamwork advertised?	This variable equals one if at least one of the following words is advertised in the company's Web site: Teamwork, Collaboration/Cooperation.	Company's Web page
Innovation advertised?	This variable equals one if at least one of the following words is advertised in the Company's Web site: Innovation, Creativity, Excellence, Improvement, Passion, Pride, Leadership, Growth, Performance, Efficiency, Results.	Company's Web page
Respect advertised?	This variable equals one if at least one of the following words is advertised in the company's Web site: Respect, Diversity, Inclusion, Development, Talent, Employees, Dignity, and Empowerment.	Company's Web page
Quality advertised?	This variable equals one if at least one of the following words is advertised in the company's Web site: Quality, Customer, Meet needs, Commitment, Make a difference, Dedication, Value, Exceed expectations.	Company's Web page
Citizenship advertised?	This variable equals one if one of the following words is advertised in the company's Web site: Community, Environment, Caring, Citizenship.	Company's Web page
Communication advertised?	This variable equals one if one of the following words is advertised in the company's Web site: Communication, Openness.	Company's Web page
Hard work advertised?	This variable equals one if one of the following words is advertised in the company's Web site: Hard work, Reward, Fun, Energy.	Company's Web page
Principal component web	This variable is the principal component extracted, for each company, from the dummies Integrity advertised? Teamwork advertised? Innovation advertised? Quality advertised? Safety advertised? Citizenship advertised? Communication advertised? Hard Work advertised?	Company's Web page
Tot value advertised	This variable counts the number of values advertised by the company in its webpage, ranging from zero to nine.	Company's web page
GPTW score	GPTW score is the average score of question "Is this company a Great Place to Work?" (described in this table) across all surveyed employees of a company, on a 1–5 scale.	Great Place to Work, Trust Index database
Unionized workers/ Employees	Number of unionized workers over total employees.	Great Place to Work, Culture Audit© company survey;
Job applicants/Jobs filled	Number of job applicants over number of jobs filled.	Great Place to Work, Culture Audit© company survey
Union grievances/ Unionized workers	Number of union grievances per unionized employee.	Great Place to Work, Culture Audit© company survey
Public	Dummy equal to one if the company is publicly listed during the fiscal year of interest.	Great Place to Work, Culture Audit© company survey
Log employees	Logarithmic transformation of total number of the employees of the company (includes full-time, part-time, and temporary employees).	Great Place to Work, Culture Audit© company survey
Layoff	Dummy equal to one if the company responds positively to the following question: *"Has the company had a single (or combination of) layoff(s) that reduced the number of employees by 5% or more in the past five years? (Yes/No)."*	Great Place to Work, Culture Audit© company survey
Insurance coverage	This variable counts the number of positive answers to the following question: "*Does the company have health insurance plans that cover the following (Yes/No): Dental care; Vision care; Prescription drug subsidy; Mental health care; Alternative treatments (acupuncture, homeopathy, or chiropractic); Fertility treatments; Other.*"	Great Place to Work, Culture Audit© company survey
Onsite benefits	This variable counts the number of the following perks and benefits offered onsite by the company: *Free snacks during the day; Free beverages during the day; Dry cleaning; Banking; Film processing; Travel service; Free lunch on a regular, daily basis; Subsidized lunch on a regular, daily basis; Free breakfast foods on a regular, daily basis; Take-home meals on a regular, daily basis; Personal concierge service; Onsite package/mailing service; Massage therapy.*	Great Place to Work, Culture Audit© Company survey
Midwest	Dummy equal to one if the company's headquarter is located in the Midwest of the United States.	Great Place to Work, Culture Audit© company survey
South	Dummy equal to one if the company's headquarter is located in the South of the United States.	Great Place to Work, Culture Audit© company survey
Northeast	Dummy equal to one if the company's headquarter is located in the Northeast of the United States.	Great Place to Work, Culture Audit© company survey;
West	Dummy equal to one if the company's headquarter is located in the West of the United States.	Great Place to Work, Culture Audit© company survey
Non-continental	Dummy equal to one if the company's headquarter is located in non-continental United States (Alaska, Puerto Rico, Hawaii, etc.).	Great Place to Work, Culture Audit© company survey;

Managerial integrity	This variable represents the employee response to the following statement *"Management's actions match its words."* Employees are asked to express a measure of the strength of their experience on a scale from 1 (almost always untrue) to 5 (almost always true). We average the employees' responses to a company-year level.	Great Place to Work, Trust Index© employee survey
Managerial ethics	This variable represents the employee response to the following statement "Management is honest and ethical in its business practices." Employees are asked to express a measure of the strength of their experience on a scale from 1 (almost always untrue) to 5 (almost always true). We average the employees' responses to a company-year level.	Great Place to Work, Trust Index© employee survey;
Safe place	This variable represents the employee response to the following statement *"This is a physically safe place to work."* Employees are asked to express a measure of the strength of their experience on a scale from 1 (almost always untrue) to 5 (almost always true). We average the employees'' responses to a company-year level.	Great Place to Work, Trust Index© employee survey
Being myself	This variable represents the employee response to the following statement *"I can be myself around here."* Employees are asked to express a measure of the strength of their experience on a scale from 1 (almost always untrue) to 5 (almost always true). We average the employees' responses to a company-year level.	Great Place to Work, Trust Index© employee survey;
Tenure (survey average)	Average tenure of the employees participating in the survey for each company-year.	Great Place to Work, Trust Index© employee survey;
Manager (survey average)	Fraction of managers among the employees participating in the survey for each company-year.	Great Place to Work, Trust Index© employee survey
Age (survey average)	Average age of the employees participating in the survey for each company-year.	Great Place to Work, Trust Index© employee survey
Female (Survey Average)	Fraction of females among the employees participating in the survey for each company-year.	Great Place to Work, Trust Index© employee survey
Black (survey average)	Fraction of African Americans among the employees participating in the survey for each company-year.	Great Place to Work, Trust Index© employee survey
Hispanic (survey average)	Fraction of Hispanics among the employees participating in the survey for each company-year;	Great Place to Work, Trust Index© employee survey
Founder around	*Founder around* is a dummy equal to one whenever the founder is either an active director or he participates in board meetings in a given year.	Hoovers.com; Corporate Library; Company Web site; Wall Street Journal; Wikipedia
ROS	Return on Sales (ROS), calculated as Net Income/Sales, where Net Income is item *NI* and Sales is item *SALE*, from Compustat Funda.	Compustat, Fundamental Annual
Tobin's q	Tobin's *q* is calculated as $[(Total\ Assets - Shareholder's\ Equity + Market\ Value\ of\ Equity)/Total\ Assets]$ where Total Assets is item *AT* from Compustat funda, Shareholder's Equity is item *TEQ* from Compustat Funda, and Market Value of Equity is the sum of the total market value of each security issued by the company (MM USD). The market value is calculated as price of the share (item *PRC*, CRSP) at the end of the fiscal year times the number of outstanding shares (item *SHROUT*, CRSP msf) at the end of the fiscal year.	Compustat Fundamental Annual/CRSP
Top100 Universum Student Survey	This variable is a dummy equal to one if the company makes the list of Top 100 Ideal Employers according to the Universum Student Suvery 2011. The list of Top 100 Universum Student Survey companies of 2011 is available online at http://www.universumglobal.com/IDEAL-Employer-Rankings/The-National-Editions/American-Student-Survey.	Universum Student Survey, 2011
Venture-backed	Dummy variable equal to one if the company received since 1975 at least one round of financing from a venture capitalist.	Thomson Venture Economics database
Perc. inside directors	Share of inside directors sitting on the board, calculated as *Inside directors/Total directors*, where Inside Directors and Total directors are, respectively, the variables *DirectorsInside* and *DirectorsTotal* from Corporate Library Companies database.	Corporate Library, Companies database
Perc. wwners more 5 perc.	Variable *OwnersFivePercentPctg* from Corporate Library Companies database, indicating the estimated percentage of outstanding shares held by any 5% or greater shareholders.	Corporate Library, Companies database
G-Index	Corporate governance index by Gompers-Ishii-Metrick (Gompes, Ishii, and Metrick, 2003), variable *gindex* from RiskMetrics Governance database. The variable G-Index has been discontinued since 2007. We assign to each company in our data set the latest available data in RiskMetrics.	RiskMetrics, Governance database
Perc. inst. investors	Total percentage of shares owned by institutional investors.	Compact Disclosure
Log CEO total compensation	Logarithmic transformation of CEO total annual compensation (Salary+Bonus+Option Grant+Other Annual Compensation) in K USD. This variable is item *tdc1* if item *pcfo*="CEO" from ExecuCompustat Annual Compensation.	Compustat Executive Compensation
CEO variable/Total compensation	Ratio of variable to total CEO annual compensation, where the variable annual compensation is defined as the difference between items *tdc1-(salary+othcomp)* if item *pcfo*="CEO" from ExecuCompustat Annual Compensation.	Compustat Executive Compensation

From the Culture Audit© we use the information on the total number of workers in all plants based in the United States, including full-time, part-time, and temporary employees. The variable *Unionized workers/Employees* indicates the fraction of employees joining a worker union, while *Union grievances/Unionized workers* represents the number of union grievances per unionized worker. *Job applicants/Jobs Filled* is the total number job applications collected during the year as a fraction of current employees. For each company we use information on the headquarters location, layoffs involving more than 5% of their employees in the last year, the coverage of the health insurance plan and the number of onsite perks and benefits offered by the firm to its employees.

Our proxies for a culture of integrity are the responses to two distinct statements from the Trust Index© employee survey. Employees are asked to express a measure of the strength of their experience on a scale from 1 (almost always untrue) to 5 (almost always true). The two statements we use are "Management's actions match its words" and "Management is honest and ethical in its business practices". We use these responses to identify two key dimensions of integrity: the "wholeness" characteristic emphasized by Erhard, Jensen, and Zaffron (2007) and the ethical dimension.

For each surveyed employee, we have information on demographic characteristics such as *age*, *gender*, *ethnicity*, *tenure*, and job type (manager versus non-manager) collected through the Trust Index survey. Finally, in our main specification, all individual statements from the Trust Index© employee survey are averaged at a company-year level and matched with the respective company-year information from the Culture Audit© survey.[5] Table 2 presents the sample statistics for all the variables of interest.

4.1. Other data used

For the publicly listed companies in the Great Place to Work data set (385 firms), we collect financial and economic performance data using the Compustat/CRSP merged database. For each company we calculate return on sales (*ROS*) and *Tobin's q*. Comparing our sample to the S&P 500 sample, these companies have equal return on sales (10%), and slightly higher Tobin's q (2.14 for the GPTWI sample and 2.05 for the S&P 500 sample).[6]

One potential goal to advertise and uphold certain values is to attract better employees. To this end, we look at the way students perceive potential employers through the *Universum* survey. Every year, *Universum* surveys a large sample of students and asks questions about their career expectations and how they perceive companies as potential employers. Students are asked to pick the employers they would consider working for and then choose those they would most like to work for, that is, the companies that they perceive as being "Ideal." The "Universum Top 100 Ideal Employer Ranking" reflects the frequency with which these employers were selected as being ideal by the students who participated in the surveys. In other words, this survey reflects how many students perceive a given company as a "best place to work." The variable *Top100 Universum Student Survey* indicates whether a firm in the GPTWI sample made the "Universum Top 100 Ideal Employer Ranking" in 2011.[7]

To determine whether a company ever received some venture capital financing, we use Thomson Venture Economics database. Our venture-backed dummy variable equals one if the company received at least one round of financing from a venture capitalist since 1975.

Finally, for the public companies in our sample, we collect corporate governance and ownership variables from the standard sources. The variable "*Percentage inside directors*" comes from the Corporate Library database and indicates the share of inside directors sitting on the board. As a proxy for the level of shareholder rights, we use the *G-Index* by Gompers-Ishii-Metrick (Gompers, Ishii, and Metrick, 2003) from RiskMetrics Governance.[8] For institutional ownership we use Compact Disclosure where ownership data include the number of institutional owners, the number of shares issued, and the percent of outstanding shares held by each institution (*Perc. inst. investors*). Information on CEO total compensation (*Log CEO total compensation*) and the ratio variable to total CEO compensation (*CEO variable/total Compensation*) comes from Compustat Executive Compensation database.

The exact definition of all the variables used and the source is reported in Table 1. Table 2 provides the summary statistics of these variables.

5. Econometric concerns

As Table 2C shows, the individual responses to the various distinctive statements asked in the employees' survey are highly correlated. For example, the agreement with the integrity statement has a 0.91 correlation with the agreement with the ethics statement. This pattern raises the serious possibility that, in addition to a standard omitted variable problem, there might be a so-called "halo effect" pervading all the answers. Thorndike (1920) defines it as "a problem that arises in data collection when there is carry-over from one judgment to another".

We can model this effect as an error-in-variable problem that affects potentially all the answers to the questionnaire. Let x denote the agreement with the integrity statement and z the agreement with another statement in the survey. We let $x_i = x_i^* + h_i$ where x_i^* is the true response (i.e., the response unaffected by the other questions in the survey) and h_i is the halo effect; similarly, $z_i = z_i^* + h_i$, with $\mathrm{cov}(x_i^*, h_i) = \mathrm{cov}(z_i^*, h_i) = 0$ so that the true values are

[5] We conduct a robustness check by estimating the same model by using individual data as well.

[6] Calculating the average ROS and Tobin's q for the Great Place to Work® sample, we attribute to each fiscal year a weight equal to the frequency of public companies in the GPTWI cross-section sample for that fiscal year.

[7] The list of Top 100 Universum Student Survey companies of 2011 is available online at http://www.universumglobal.com/IDEAL-Employer-Rankings/The-National-Editions/American-Student-Survey.

[8] The variable G-Index has been discontinued since 2007. We assign to each company in our data set the latest data available in RiskMetrics.

Table 2
Summary statistics and cross-correlations.

Panel A shows the summary statistics of the variables obtained from the information available in Web sites for the companies in the S&P 500 sample. Panel B shows the summary statistics for the values in our GPTW sample. For each of the 679 companies, we select the first year they appear in the Great Place to Work Culture Audit© survey between 2007 and 2011. Panel C reports some cross-correlations among the variables in the GPTW sample. For a detailed description of each variable, see Table 1.

Panel A: Web site declared values

Variable	Mean	Median	Std. dev.	10th Perc.	90th Perc.	Observations
Integrity	0.7	1	0.5	0	1	500
Teamwork	0.5	1	0.5	0	1	500
Innovation	0.8	1	0.4	0	1	500
Respect	0.7	1	0.5	0	1	500
Quality	0.6	1	0.5	0	1	500
Safety	0.3	0	0.4	0	1	500
Citizenship	0.3	0	0.5	0	1	500
Communication	0.3	0	0.4	0	1	500
Hard work	0.3	0	0.5	0	1	500
N. of values	4	5	2.5	0	7	500
Principal component	1.6	1,8	0.9	0	2,5	500

Panel B: GPTW variables

Variable	Mean	Median	Std. dev.	10th Perc.	90th Perc.	Observations
Managerial integrity	3.90	3.90	0.25	3.57	4.20	679
Managerial ethics	4.29	4.30	0.23	3.97	4.57	679
Tobin's q	2.14	1.57	1.53	1.02	4.18	368
ROS	0.10	0.08	0.11	0.02	0.21	383
Unionized workers/Employees	0.05	0.00	0.13	0.00	0.20	664
Job applicants/Employees	7.33	4.01	19.20	0.55	15.62	601
Union grievances/Unionized workers	0.01	0.00	0.05	0.00	0.03	664
Top100 Universum Student Survey	0.11	0.00	0.31	0.00	1.00	678
Public company	0.58	1.00	0.49	0	1	679
Venture-backed	0.10	0.00	0.29	0	0	679
Perc. inside directors	0.17	0.14	0.09	0.08	0.30	291
G-Index	9.39	9.00	2.44	6.33	12.67	271
Perc. inst. investors	0.69	0.73	0.25	0.37	0.95	359
Perc.owners more 5 perc.	0.19	0.15	0.17	0.00	0.40	290
Log CEO total compensation	8.57	8.66	1.14	7.31	9.91	256
CEO variable/Total compensation	0.78	0.82	0.16	0.56	0.93	256
Safe place	4.62	4.66	0.21	4.32	4.85	679
Being myself	4.28	4.28	0.17	4.07	4.49	679
Highest industry market/book	5.24	4.55	2.98	2.50	1.11	669
Fraction public in North American Industry Classification System (NAICS) sector	0.20	0.12	0.20	0.03	0.45	669
Employees	15359.7	4856	32800.3	1249	35874	678
Layoff	0.20	0.00	0.40	0	1	639
Insurance coverage	5	5	1	4	6	639
Onsite benefits	4	4	3	1	7	639
Tenure (survey average)	7	7	3	4	11	639
Manager (survey average)	0.29	0.27	0.12	0.17	0.45	639
Age (survey average)	41	42	4	36	45	639
Female (survey average)	0.45	0.45	0.17	0.23	0.66	639
Black (survey average)	0.07	0.05	0.06	0.02	0.14	639

Hispanic (survey average)					0.11	0	0.19	0	0	0		639	
Midwest					0.26	0	0.44	0	0	1		639	
South					0.27	0	0.45	0	0	1		639	
Northeast					0.26	0	0.44	0	0	1		639	
West					0.21	0	0.41	0	0	1		639	
Non-continental					0.00	0	0.06	0	0	0		639	

Panel C: Correlation matrix among GPTW variables

	Managerial integrity	*Managerial ethics*	*Cooperation*	*Safe place*	*Being myself*	*Tobin's q*	*ROS*	*Public*	*Venture-backed*	*Founder around*	*Perc. inside directors*	*Log employees*
Managerial integrity	1.00											
Managerial ethics	0.91	1.00										
Safe place	0.58	0.68	0.68	1.00								
Being myself	0.80	0.77	0.75	0.49	1.00							
Tobin's q	0.27	0.27	0.27	0.23	0.19	1.00						
ROS	0.24	0.26	0.22	0.32	0.09	0.27	1.00					
Public	−0.24	−0.16	−0.21	0.05	−0.18	0.05	0.05	1.00				
Venture-backed	0.10	0.09	0.12	0.16	0.18	0.32	0.09	0.17	1.00			
Perc. inside directors	0.21	0.14	0.17	0.04	0.25	0.09	0.02	−0.04	0.03			
Log employees	−0.30	−0.26	−0.33	−0.20	−0.28	−0.11	−0.17	0.38	−0.05	−0.19	−0.22	1.00

uncorrelated with the halo effect as in standard errors-in-variables problems.

The halo effect creates two problems: first, it brings in a standard error-in-variables problem which tends to induce attenuation bias when we use integrity as an explanatory variable. The second, and potentially more serious problem, is that if the halo effect is correlated with our variable of interest when explaining integrity (e.g., our measures of corporate governance such as being a public company), we could find a spurious correlation between integrity and this variable even when none is present. This is equivalent to a problem of unobserved heterogeneity.

The type of bias and the way to address it depends upon whether we use our survey measure as explanatory variable or dependent variable.

5.1. Case I: Integrity on the right-hand side (RHS)

Let y_i be a variable such as profitability or Tobin's q. To test whether there is a correlation between profitability and integrity, we would like to estimate the following regression model:

$$y_i = \gamma x_i^* + \varepsilon_i + h_i, \tag{1}$$

where ε_i is an independent and identically distributed (*iid*) error term with $\mathrm{cov}(x_i^*, \varepsilon_i) = 0$ and we allow for the possibility that the halo effect spreads over our outcome variable y_i.

If we estimate

$$y_i = \gamma x_i + u_i,$$

where $u_i = \varepsilon_i + (1-\gamma)h_i$, by ordinary least squares (OLS) we obtain

$$\hat{\gamma} = \gamma \frac{\mathrm{var}(x^*)}{\mathrm{var}(x)} + \frac{\mathrm{var}(h_i)}{\mathrm{var}(x)},$$

which is inconsistent if a halo effect is present. The bias is the sum of two components: a standard attenuation effect, $\gamma(\mathrm{var}(x^*)/\mathrm{var}(x))$, and an unobserved heterogeneity effect, $\mathrm{var}(h_i)/\mathrm{var}(x)$ originating from the potential correlation between the halo effect and the outcome variable which would give rise to a correlation between integrity and the outcome variable even when none is present ($\gamma = 0$).

If we find a variable z_i, affected by the same halo effect, but uncorrelated with the true integrity measure (i.e., such that $\mathrm{cov}(x_i^*, z_i^*) = 0$), then in (1) we can substitute $h_i = z_i - z_i^*$ and estimate

$$y_i = \gamma x_i + \delta z_i + \varepsilon_i + \delta z_i^* = \gamma x_i + \delta z_i + \nu_i,$$

where the new error term ν_i is orthogonal to the integrity variable x_i. This correction resolves the unobserved heterogeneity problem but introduces an error-in-variables problem in the z_i regressor. Yet, we are interested in the coefficient γ and not δ. The asymptotic estimate of our parameter of interest will then be

$$\hat{\gamma} = \gamma + \frac{\mathrm{var}(z^*)\mathrm{cov}(z^*, x^*)}{2\mathrm{var}(x^*)\mathrm{var}(z^*) - \mathrm{cov}(z^*, x^*)}\delta = \gamma$$

which confirms that we can identify γ if we can find a variable z_i such that $\mathrm{cov}(x_i^*, z_i^*) = 0$.

Table 3
Advertised values and firm performance.

This table reports the OLS coefficients of the regression of various performance measures (column headers) on a dummy equal to one if integrity is advertised as a value in the Web page or in the principal component of the values promoted on the Web. The sample includes all the S&P 500 companies in 2011. In all regressions we control for the logarithm of revenues and industry fixed effects. *q* is the Tobin's *q*, ROS is Net Income/Sales (Compustat), ACSI is the American Consumer Satisfaction Index provided by ACSI, and Class action filed is the total number of class actions filed against the company since 1995 (from the Stanford Securities Class Action Database). We report the *I*-squared and the marginal *R*-squared, where the latter is the difference between the *R*-squared and the *R*-squared of a regression where we control only for Log revenues and industry fixed effects. For a detailed description of each variable, see Table 1. All regressions contain a constant term. Standard errors are in parentheses and */**/*** indicate statistical significance at the 10%, 5%, and 1% level.

	Tobin's *q*		ROS		ACSI		Class action filed	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Integrity advertised	−0.09		0.02		3.08***		0.10	
	(0.13)		(0.01)		(1.01)		(0.10)	
Principal component of Web values		−0.04		0.01		1.70***		0.01
		(0.07)		(0.01)		(0.57)		(0.06)
Log revenues	−0.28***	−0.28***	−0.02***	−0.02***	−1.80***	−1.93***	0.13***	0.13***
	(0.05)	(0.05)	(0.00)	(0.00)	(0.45)	(0.46)	(0.04)	(0.04)
Constant	4.60***	4.61***	0.30***	0.29***	91.07***	91.79***	−1.15***	−1.01***
	(0.47)	(0.48)	(0.04)	(0.05)	(4.54)	(4.52)	(0.36)	(0.37)
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	497	497	500	500	106	106	165	165
R-squared	0.13	0.13	0.09	0.09	0.51	0.51	0.22	0.21
Marginal *R*-squared	0.01	0.01	0.01	0.01	0.05	0.05	0.00	0.00

5.2. Case II: Integrity on the left-hand side (LHS)

The other case is when we have integrity as a LHS variable and test whether it is correlated with some RHS variable such as governance. Thus, we want to estimate the true relation

$$x_i^* = \theta g_i + \varepsilon_i$$

but we estimate

$$x_i = \theta g_i + \varepsilon_i + h_i \tag{2}$$

which clearly poses an identification problem if governance is correlated with the halo variable. Replacing $h_i = z_i - z_i^*$ and estimating

$$x_i = \theta g_i + \lambda z_i + \varepsilon_i + z_i^*,$$

the (asymptotic) value of the estimated parameter would be

$$\widehat{\theta} = \theta + \frac{\mathrm{var}(z^*)\mathrm{cov}(z^*, g)}{2\mathrm{var}(g)\mathrm{var}(z^*) - \mathrm{cov}(z^*, g)}\lambda.$$

Hence, for θ to be identified, we need to assume that governance is uncorrelated with z_i^*; alternatively, we could use an instrument if we can find a variable that causes governance to change and that is uncorrelated with the error term in (2).

5.3. The right control

The above discussion suggests that the ideal control to absorb the halo effect is a variable that is affected by the halo effect as our variable of interest, but is uncorrelated with the true measure of integrity and the governance variables we use. Note that this control addresses the halo effect, but it does not deal with a potential omitted variable problem.

In the GPTWI survey, there are 58 statements divided into five groups: credibility, respect, fairness, pride, and camaraderie. Both by the label of the group and by the nature of the questions, we exclude a priori credibility, fairness, and pride, because they are too close to the concept we want to measure: i.e., integrity. Looking at the remaining two groups we focus on two statements (one per group), which appear as remote as possible from the concept of integrity. In the respect group we use the statement: "This is a physically safe place to work." From the camaraderie section, we use the statement "I can be myself around here".

As Table 2C shows, the degree of agreement with both these statements (especially "safe place") is relatively lower. This is a necessary, albeit not sufficient, condition to be a valid control in the cases we use integrity on the RHS. Since the $\mathrm{cov}(x_j, z_{jk}) = \mathrm{cov}(x_j^*, z_{jk}^*) + \mathrm{var}(h_j)$, if we select the z with the lowest covariance with observed integrity, we are selecting the one with the lowest $\mathrm{cov}(x_j^*, z_{jk}^*)$. For this reason we are going to privilege the "safe place" question, but we will use both for robustness.

The story is different when we use integrity as a LHS variable. Here, the (true value of the) control should be uncorrelated with the measure of governance we use. In this respect, a camaraderie statement such as "I can be myself around here" is more likely to be uncorrelated with the governance variable than a "safe place to work" statement. Yet, for consistency, we are going to report results with both these controls.

6. Integrity and performance measures

We start with financial measures of performance, which we have available only for the subsample of publicly traded firms. Table 4A reports the estimate of a linear regression where the dependent variable is Tobin's *q* (in the first four columns) and the return on sales (in the last four). Besides industry and year fixed effects, as control variables we report a measure of size (log of the number of employees) and one of the two proxies for the halo

Table 4
Integrity and firms' outcomes.

This table reports the correlation between firms' values, as perceived by employees, and financial and managerial outcomes. Panel A reports the OLS coefficients of the regressions of the Tobin's *q* (columns 1–4) and ROS (columns 5–8) on the cultural variables for the publicly listed companies in the Great Place to Work sample. Panel B repeats the same specification, respectively, with Unionized workers over Employees (columns 1–4) and Union grievances over Unionized workers (columns 5–8) as LHS variables for the entire Great Place to Work sample. Panel C repeats the same specification using as dependent variable an indicator variable equal to one if the company was mentioned as a Top 100 company to work for in Universum Student Survey (columns 1–4) and job application over jobs filled (5–8), respectively. For a detailed description of each variable, see Table 1. All regressions contain controls for company age, size (log employment), the geographical location of the company (macro area in which the company headquarter is located), Midwest is the baseline (omitted dummy), and a constant term; results with the full set of controls are reported in the online Appendix. Standard errors in parentheses, *R*-squared of the reported regression, and */**/*** indicate statistical significance at the 10%, 5%, and 1% level.

Panel A: Financial performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	Tobin's *q*				ROS			
Managerial integrity	1.417***	2.880***			0.041	0.174***		
	(0.422)	(0.503)			(0.030)	(0.036)		
Managerial ethics			1.479***	3.070***			0.023	0.164***
			(0.464)	(0.536)			(0.033)	(0.039)
Safe place	0.761		0.674		0.096**		0.111***	
	(0.557)		(0.587)		(0.040)		(0.042)	
Being myself		−2.232***		−2.358***		−0.176***		−0.159***
		(0.769)		(0.786)		(0.055)		(0.056)
Observations	368	368	368	368	382	382	382	382
R-squared	0.30	0.31	0.29	0.31	0.27	0.28	0.27	0.27
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marginal *R*-squared	0.0236	0.0674	0.0214	0.0675	0.00392	0.0469	0.000989	0.0372

Panel B: Labor relationship

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	Unionized workers/Employees				Union grievances/Unionized workers			
Managerial integrity	−0.038	−0.125***			−0.011	−0.019		
	(0.024)	(0.033)			(0.009)	(0.013)		
Managerial ethics			−0.046*	−0.171***			−0.013	−0.029**
			(0.028)	(0.034)			(0.011)	(0.013)
Safe place	−0.204***		−0.195***		−0.039***		−0.036***	
	(0.031)		(0.033)		(0.012)		(0.013)	
Being myself		−0.011		0.030		−0.018		−0.009
		(0.050)		(0.049)		(0.019)		(0.019)
Observations	664	664	664	664	664	664	664	664
R-squared	0.31	0.26	0.31	0.27	0.21	0.19	0.21	0.20
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marginal *R*-squared	0.00267	0.0165	0.00303	0.0285	0.00166	0.00295	0.00194	0.00603

Panel C: Attractivness as a workplace

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	Top100 Universum Student Survey				Job applicants/Jobs filled			
Managerial integrity	0.058	0.216***			−374.070*	458.932*		
	(0.057)	(0.076)			(201.908)	(267.099)		
Managerial ethics			0.057	0.248***			−321.707	703.041**
			(0.067)	(0.080)			(232.865)	(279.483)
Safe place	0.186**		0.183**		356.530		335.321	
	(0.073)		(0.080)		(255.535)		(278.432)	
Being myself		−0.141		−0.161		−1,272.079***		−1,515.361***
		(0.114)		(0.114)		(404.817)		(400.185)
Observations	678	678	678	678	589	589	589	589
R-squared	0.25	0.25	0.25	0.25	0.03	0.04	0.03	0.05
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marginal *R*-squared	0.00118	0.00952	0.000856	0.0111	0.00599	0.00508	0.00334	0.0108

effect: the employees' opinion on the safety of the work place or their opinion on "I can be myself around here." Also, all regressions contain (not reported) controls for company age, the geographical location of the company (macro area in which the company headquarter is located), and a constant term; results with the full set of controls are reported in the online Appendix.

As columns 1 and 2 show, there is a positive and statistically significant correlation between the level of managerial integrity perceived by the employees and Tobin's *q*. One standard deviation increase in integrity raises the level of Tobin's *q* by 0.19 standard deviations if we use the "safe place" control (column 1) or 0.47 standard deviations if we use the "I can be myself" control (column 2).

Columns 3 and 4 present similar evidence, where we substituted the ethics question to the integrity one. The results are similar even from an economic point of view, with a stronger impact when we control for "I can be myself," rather than "safe place."[9]

Columns 5–8 replace Tobin's *q* with the return on sales as a measure of firm financial performance. Also, according to this measure there is a positive correlation between firm performance and our measures of values, though the coefficient is statistically significant only when controlling for "I can be myself." For robustness purpose we check the robustness of these results by including other standard controls for Tobin's *q*, such as Return on Assets, Research and Development (R&D) over Sales, S&P index inclusion. Our main results remain the same.

In the first four columns of Table 4B, we use as outcome variable the fraction of labor force that is unionized. In a world where promises are not kept very often, workers feel the need to be more protected, and unionization is a possible response to this need. Consistent with this interpretation, we find that integrity is negatively correlated with unionization. One standard deviation increase in integrity decreases the level of unionization by 0.07 standard deviations if we use the "safe place" control (column 1) or 0.24 standard deviations if we use the "I can be myself" control (column 2), albeit only the latter coefficient is statistically different from zero.

In columns 5–8 of Table 4B we substitute as a left-hand-side variable the number of union grievances per unionized employee. In general, we do not find any significant correlation between integrity and the relative number of grievances. The only exception is when we use managerial ethics as a measure of integrity and we control for "I can be myself".

Finally, in Table 4C, columns 1–4, we use the desirability of the company as a place to work measured by the Universum Student Survey. This variable is a dummy equal to one if a company makes the list of Top 100 Ideal Employers and zero otherwise. When we use this desirability measure, we observe a positive correlation between integrity and desirability, but only when we use "I can be myself" as a control variable is this correlation statistically significant.

In columns 5–8 of Table 4C we use as a LHS variable the ratio between job applications and number of positions filled. We intend this to be a measure of the pent up demand for jobs in this firm. Here, the results depend heavily on the control we use. When we use "safe place," the coefficients of both integrity and ethics are (contrary to expectation) negative (albeit only the former is statistically different from zero at the 10% level). When we use "I can be myself" as control, the coefficients of both integrity and ethics are positive and statistically significant.

7. Integrity and going public

7.1. OLS regressions

In Table 5 we explore the correlation between being a publicly traded company and the average level of integrity. In columns 1–3 we use the integrity measure as a dependent variable. Since founders tend to identify themselves with the company, we control for whether the founder is still on the board, expecting it to make integrity more sustainable. In addition, we insert several other control variables: a measure of size (log of the number of employees), the quality of employees' benefits (both in terms of insurance coverage and in terms of onsite benefits), demographics characteristics of the firm (average tenure, average age, fraction of women, blacks, and Hispanics), industry, geographical areas, and year fixed effects. In addition, we alternatively control for one of the two proxies for the halo effect: the employees' opinion on the safety of the work place or their opinion on "I can be myself around here".

The main variable of interest is whether a company is publicly traded. We find that integrity is lower in publicly traded companies: public firms have an integrity value that is 0.21 standard deviations below similar firms that are private. Contrary to expectation, neither the presence of the founder, nor the nature of customers is correlated with the level of integrity. Among the control variables, it is interesting to point out the coefficient of the South dummy: firms located in the Southern part of the United States exhibit a significantly higher level of integrity than firms located in the rest of the United States.

When we look at venture-backed firms (column 2), we do not find any correlation of this financing decision with integrity. Yet, this lack of a correlation might be due to a variation in the impact of this decision. In column 3 we analyze the correlation between integrity and venture-backing conditional on a firm being private or public. This correlation is significantly positive only among publicly held firms.

7.2. An event study

Going public is a decision and as such is endogenous. So it is hard to tell whether firms that chose to go public are different in some other dimension, which is correlated with a lower level of integrity. One way to address this problem would be to find some instruments for the going-public decision. We tried with some instruments based on the evidence in Pagano, Panetta, and Zingales (1998), but they were weak. An alternative is to conduct an event study of firms that went public to see whether they indeed experience a drop in integrity around the time of the IPO. Unfortunately,

[9] The coefficient of managerial integrity (managerial ethics) becomes 1.235 (1.493) and statistically significant at the 1% level when we include both controls ("I can be myself" and "safe place") and the coefficients of the controls become insignificant due to collinearity.

Table 5
Integrity, ethics, and public ownership.

This table reports the correlation between firms' values, as perceived by employees, and the firms' governance. For each firm, the value of Managerial integrity is calculated by taking the mean of value among all the employees answering the survey. For a detailed description of each variable, see Table 1. All regressions contain controls for company age, size (log employment), the geographical location of the company (macro-area in which the company headquarter is located), Midwest is the baseline (omitted dummy), a dummy if the founder is still around, a dummy for large layoffs, health insurance coverage, average number of perks and benefits in the firm, employees average characteristics (fraction of managers, average age, fraction female, fraction black, and fraction Hispanic), and a constant term; results with the full set of controls are reported in the online Appendix. Standard errors in parentheses, *R*-squared of the regression reported, and */**/*** indicate statistical significance at the 10%, 5%, and 1% level.

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Managerial integrity			Managerial ethics		
Public	−0.115***	−0.116***	−0.118***	−0.076***	−0.079***	−0.085***
	(0.018)	(0.018)	(0.020)	(0.016)	(0.016)	(0.018)
Company is venture-backed		0.018	−0.105		0.027	−0.061
		(0.029)	(0.064)		(0.025)	(0.057)
Public × Venture-backed			0.151**			0.105*
			(0.070)			(0.062)
Safe place	0.720***	0.719***	0.715***	0.763***	0.761***	0.758***
	(0.045)	(0.045)	(0.045)	(0.040)	(0.040)	(0.040)
Constant	0.770**	0.777**	0.801***	0.759***	0.772***	0.790***
	(0.304)	(0.304)	(0.303)	(0.268)	(0.268)	(0.268)
Observations	639	639	639	639	639	639
R-squared	0.55	0.55	0.55	0.58	0.59	0.59
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

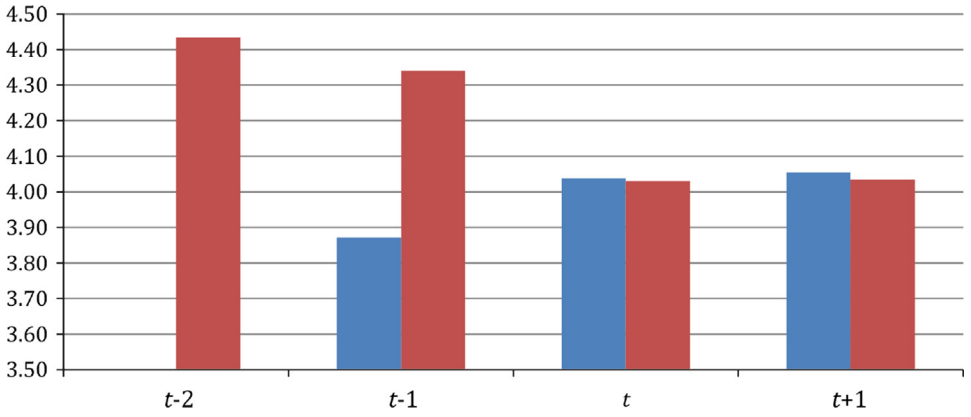

Fig. 2. Managerial integrity around the IPO date. This figure shows the level of managerial integrity before and after the IPO for the two companies, blue and red bars, for which we have data both before and after. *t* is the IPO year. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

in the GPTWI sample there are only two firms for which we have data both before and after the IPO. The results for these two firms are reported in Fig. 2. The names of the firms have been removed to respect the confidentiality agreement with GPTWI.

In one case we observe a pronounced drop in the average level of integrity at the time of the IPO. In the other case, the level of integrity rises a bit around the IPO. Thus, this analysis in inconclusive, but it does indicate that integrity can change rapidly over time.

7.3. Integrity and traditional governance variables

In Table 6 we explore whether more traditional corporate governance variables are correlated with the level of integrity. Since these variables are available only for publicly traded companies, we restrict the sample to those. We only report the estimates obtained controlling for the "I can be myself" variable, but the results are the same if we use the "safe place" variable.

The percentage of inside directors on the board has a positive but insignificant effect on integrity and so has the G-Index of corporate governance. By contrast, the percentage of stock owned by institutional investors and the percentage of stock owned by large shareholders (more than 5%) has a negative coefficient, with the second one being statistically different from zero. A possible explanation is that a more concentrated ownership structure leads to more attention towards shareholders' value-maximization, with negative consequences on the value of maintaining a reputation for integrity.

When we look at CEO compensation (both the level and the slope), we find a positive and statistically significant correlation with integrity. A higher compensation can be

Table 6
Impact of corporate governance, ownership, and CEO compensation on culture.

This table reports the correlation between firms' values and corporate governance, ownership variables for the publicly listed companies in the Great Place to Work sample. The dependent variables are Managerial integrity (columns 1–6) and Managerial ethics (7–12), respectively. For a detailed description of each variable, see Table 1. All regressions contain controls for company age, size (log employment), the geographical location of the company (macro-area in which the company headquarter is located), Midwest is the baseline (omitted dummy), a dummy for large layoffs, health insurance coverage, average number of perks and benefits in the firm, employees average characteristics (fraction of managers, average age, fraction female, fraction black, and fraction Hispanic), and a constant term; results with the full set of controls are reported in the online Appendix. Standard errors in parentheses, *R*-squared of the regression included, and */**/*** indicate statistical significance at the 10%, 5%, and 1% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables	Managerial integrity						Managerial ethics					
Perc. inside directors	0.027						−0.032					
	(0.113)						(0.109)					
G-Index (last available observation in RiskMetrics)		0.000						−0.002				
		(0.004)						(0.004)				
Per. inst. investors			−0.018						−0.038			
			(0.034)						(0.032)			
Perc. wwners more 5 perc.				−0.119**						−0.061		
				(0.055)						(0.054)		
CEO log (Total compensation (K USD))					0.018**						0.011	
					(0.009)						(0.009)	
CEO variable to Total compensation						0.108*						0.070
						(0.058)						(0.056)
Being myself	1.214***	1.127***	1.102***	1.197***	1.144***	1.146***	1.141***	1.090***	1.083***	1.125***	1.098***	1.100***
	(0.075)	(0.077)	(0.065)	(0.074)	(0.081)	(0.081)	(0.072)	(0.072)	(0.062)	(0.073)	(0.079)	(0.079)
Constant	−1.117***	−0.586	−0.490	−0.966**	−0.706*	−0.723*	−0.304	0.046	0.081	−0.047	0.018	−0.000
	(0.410)	(0.407)	(0.353)	(0.409)	(0.419)	(0.421)	(0.396)	(0.379)	(0.337)	(0.401)	(0.407)	(0.409)
Observations	265	253	331	264	241	241	265	253	331	264	241	241
R-squared	0.73	0.72	0.68	0.74	0.72	0.72	0.72	0.72	0.69	0.72	0.70	0.70
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

both the sign of a very valuable CEO and/or of a very entrenched one. Either way, it is a sign that the CEO has more power vis-à-vis the shareholders and thus, she is better able—if she wants to—to maintain the integrity value even at the expense of a lower short-term profit.

In columns 7–12 we repeat the same exercise with managerial ethics as a left-hand-side variable. None of the corporate governance variables is significant. In sum, the ethical level seems uncorrelated with the traditional corporate control variables, while the level of integrity is correlated in a way at odds with the traditional effects of these variables. Both these results suggest that integrity is a phenomenon that cannot be traced to traditional corporate governance but should to be analyzed from an alternative governance perspective.

8. Conclusions

In resigning from Goldman, Greg Smith claimed that a culture of integrity was "the secret sauce" that made Goldman great. He also claimed that this culture had deteriorated since the IPO. While we are unable to test his claims directly, we study whether, on average, a culture of integrity adds value and whether, on average, this culture is weaker among publicly traded companies. We find both these statements to be true. Integrity is positively correlated with financial performance and attractiveness of job offerings, while it is negatively correlated with the degree of unionization. In the GPTWI sample, we also find that publicly traded companies are less able to sustain a high level of integrity.

With few notable exceptions, the finance literature has ignored the role corporate culture can play. This is especially surprising more than 25 years after the "incomplete contract" revolution (Grossman and Hart, 1986). If contracts are incomplete, values can definitely play a role in ameliorating the inefficiencies created by the incompleteness in the contractual environment and the finance literature has to realize it. More importantly, this paper shows that a company's financial choices have consequences on the corporate culture too, an aspect which is generally ignored in the finance literature.

We are fully aware that this is just a first cut at this very difficult, but important problem. The only way to convincingly prove a causal effect of integrity on performance is through a field experiment. Yet, given the costs and complexity of setting up these experiments, the first necessary step is to understand the potential sources of this link and show that they appear to be present in the data. We regard our study as this first step.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.jfineco.2014.05.010.

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