Does it Pay to Treat Employees Well? International Evidence on the Value of an Employee-Friendly Culture

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Abstract

We examine whether an employee-friendly corporate culture that provides higher levels of compensation, benefits, training, and equal opportunities for advancement increases firm financial value and efficiency. Using a sample of 3,034 firms from 44 countries for the period 2002 to 2013, we show that firms with a more employee-friendly culture have higher valuation and better performance. These results are robust to a variety of specifications. We find evidence that better employee treatment fosters innovation and technical efficiency, suggesting that these are two viable channels through which an employee-friendly culture affects firm value. Our results are more pronounced in countries with high labor market flexibility.

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1. Introduction

Do firms with a more employee-friendly culture see benefits from their largesse? Are firms like Google and Goldman Sachs (among others) making a rational economic decision when they offer employees perks like free meals and in-building fitness amenities?[4] Or are these costs simply unnecessary extravagances that come at the expense of shareholders? To date, the evidence on this issue is limited. While past empirical research has examined the use of perquisites for executives (see for example, Yermack (2006), and Core and Guay (1999)), and metrics for firm culture like risk-taking have been shown to influence corporate actions (see Li, Griffin, Yue, and Zhao (2013), and Chui, Titman, and Wei (2010)), to date the issue of the value of firm-friendly culture remains largely unexplored. With the exception of Edmans (2011) and a recent paper by Edmans, Li, and Zhang (2015), which explores the relationship between employee satisfaction and abnormal stock returns, few papers analyze the valuation impact of an employee-friendly culture. Using the lists of "Best Companies to Work For", Edmans et al. (2015) find that employee satisfaction is associated with positive abnormal returns for firms in countries with high labor market flexibility. We expand on their study by examining a related, but different question using a much larger sample of countries and a broader measure of an employee-friendly culture that captures the extent to which firms invest in their employees' well-being. Our proxy for an employee-friendly culture measures firms' investment in compensation, training, health and safety, and assesses the extent to which firms provide equal treatment and opportunities for advancement. As such, we are able to address the question of whether investing in an employee-friendly culture is value-enhancing; this is something Edmans et al. (2015) could not and did not examine.

[4] See a recent article by Forbes (http://www.forbes.com/sites/karstenstrauss/2013/05/31/how-to-keep-employees-happy-and-to-just-plain-keep-them/).

Part of the reason for the limited research related to cultural effects in finance to date is that the academic discipline of finance has been slow to accept culture as an important driver of business decisions and outcomes. Karolyi (2015) notes that in contrast with other areas of business and the field of economics, finance research has traditionally eschewed culture as an important determinant of financial decision-making. Karolyi (2015) demonstrates that cultural influences have an important impact on investment decisions in financial arenas. We build on this work by examining the role of firm-level culture as it relates to employee friendliness and its impact on firm financial performance.

Many studies of culture rely on surveys (directly or indirectly) to make assessments on dimensions of corporate culture; a common way to assess a firm's culture as it pertains to employee treatment and satisfaction is to rely on the firm's inclusion in the list of "Best Companies to Work For" (see e.g. Edmans et al. (2015); Guiso, Sapienza, and Zingales (2013); and Edmans (2011)). In this study, we are focused on one particular aspect of corporate culture– employee friendliness. To capture the extent of a firm's employee-friendly culture, we use firm-level indicators of social performance from ASSET4 ESG database. Our measure of employee friendliness parallels the employee treatment measure used in several US studies (Bae, Kang, and Wang, 2011; Landier, Nair, and Wulf, 2009).[5] The indicators measure employment quality, health and safety, diversity, training and development, and product responsibility. We construct our measure of employee-friendly culture combining several measures that are associated with firms that invest more in creating an employee-friendly environment. In this sense, we extract our measures of corporate culture from observed behavior, as opposed to relying on survey data. While far from perfect, this

[5] These studies use ratings on firms' employees from KLD SOCRATES database. KLD evaluates employee relations based on union relations, cash profit sharing, employee involvement, retirement benefits, and health and safety strength. ASSET4 database follows a similar procedure in rating firms' social score along these dimensions.

approach should allow us to better answer questions related to our main hypothesis: is there value to investing in an employee-friendly environment?

Our work complements that of Guiso, Sapienza, and Zingales (2013). They find that proclaimed cultural values are irrelevant and do not capture the actual behavior of a firm. The character of management and the perception of managers held by employees do appear to matter, however. Our work builds on this by examining whether firms with more employee-friendly environments exhibit better financial performance. Given the findings of Guiso, et al. (2013), we place less emphasis on firms' claims about the value they place on their employees and instead construct a measure based on firms' actual behavior towards their employees. This allows us to capture a wide range of behavioral differences among firms around the world.

Overall, we find that firms that invest more in their employees are valued higher and perform better. This result holds after controlling for a battery of other relevant variables from past literature, as well as firm- and country-level factors. Specifically, we find that firms with a more employee-friendly culture have higher value (Tobin's *q*) and profitability (return on equity, *ROE* and return on assets, *ROA*). This improvement in firm value and profitability appears to stem from improved technical efficiency (i.e. higher sales-to-assets; lower costs) and better innovation (through R&D) by employee-friendly firms. This suggests that a more employee-friendly culture adds value by motivating employees to work harder and more efficiently. In addition, we observe that the impact of culture on firm value is concentrated in countries with greater labor flexibility with better protection of shareholder interests in high labor mobility situations. Consistent with past literature, our results support the view that improved firm-level innovation supports higher returns for investors. Overall, these results suggest an economic rationale for anecdotal behavior

among large firms like Google, Apple, Goldman Sachs, Morgan Stanley, Facebook, and others that offer lavish fringe benefits to employees yet also ask for demanding work schedules.

Our paper contributes to the literature on the impact of culture on firm performance (Guiso et al., 2013; Edmans, 2011; Edmans, et al., 2015) by exploring how one aspect of culture– namely, employee-friendliness affects firm performance. Our measure of culture attempts to capture firms' investment in the well-being of their employees, thus avoiding, to the extent possible, reliance on firms' claims about their treatment of employees, which should have little effect on firm performance (see e.g. Guiso et al., 2013). Our findings add further support to theories that emphasize the importance of employees as key assets in organizations (see e.g. Rajan and Zingales, 1998; Berk, Stanton, and Zechner, 2010; Carlin, and Gervais, 2009).

We also contribute to the literature that examines how employee-treatment affects firm's capital structure (Bae, Kang, and Wang, (2011)) and corporate innovation (Chang, Fu, Low, and Zhang, (2015)), and to studies that analyze the impact of employee stock ownership programs (Kim and Ouimet, 2014). Bae et al. (2011) document that firms that treat their employees better tend to have lower debt ratios. We expand on their study by exploring how an employee-friendly culture affects firm value and performance in an international setting. Chang et al. (2015) document how the use of non-executive stock options has a positive effect on innovation, while Kim and Ouimet (2014) document that small employee-stock ownership plans (ESOPs) yield benefits to firms by increasing productivity especially in cases where ownership is concentrated among fewer employees. Our study expands on the latter studies by examining a broader measure of employee-treatment and its impact on firm value and performance and by exploring the channels through which such treatment affects performance –through improved technical efficiency and innovation.

Our findings show that firms with more employee-friendly cultures have higher value and better performance. These findings may not necessarily establish causality. It could be argued that better-performing firms are able to invest more in their employees, thus becoming more employee-friendly. Thus, reverse causality is a concern. One aspect of our study that may mitigate such concern is the fact that economic theories suggest that a firm's culture is specific to the firm and is largely fixed over long periods (see e.g. Lazear, 1995; Kreps, 1990). Nonetheless, while there is no perfect solution to address such endogeneity concerns, we attempt to address this issue using a dynamic panel GMM approach recommended by Wintoki, Linck, and Netter (2012). We continue to find that our proxy for an employee-friendly culture has a positive impact on firm value even after addressing such reverse causality concerns.

The remainder of this paper is organized as follows. In Section 2 we review the past literature in the area and develop our hypotheses; in Section 3 we describe our data and methodology; in Section 4 we present the empirical results, and discuss robustness tests in Section 5. In Section 6 we conclude.

2. Background and Hypotheses Development

Emerging research in finance (Karolyi, 2015; Guiso, et al., 2013; Fauver and McDonald, 2015) suggests that national and firm-level cultural characteristics play a role in influencing firm decisions and performance. Karolyi (2015) shows that cultural influences impact portfolio allocation decisions. Guiso, et al. (2013) show that while proclaimed firm values are irrelevant to firm performance, top management's degree of trustworthiness does influence firm performance. They find that integrity among top managers is more difficult for public firms to maintain and that traditional corporate governance structures are ineffective at promoting integrity at the firm level.

The authors use a novel dataset that measures values at the firm level. We build on their work by examining an aspect of corporate culture based on the treatment of rank and file employees.

The emerging interest in culture is both distinct from and a derivative of the finance field's long interest in corporate governance. Numerous papers have examined the impact of governance. For example, Fauver and Fuerst (2006) examine how governance interacts with international differences in legal systems to influence agency costs. They show that legally-mandated employee representation in German markets enables better monitoring and mitigates agency problems among rank and file employees. Similarly, Popadak (2015) shows that corporate culture and governance interact with stronger governance leading to greater attention to easily measured firm performance metrics. While these metrics improve in the short-term, in the long-term, Popadak (2015) shows that corporate culture suffers leading to diminished firm value. O'Reilly, Caldwell, Chatman, and Doerr (2014) show that organizational culture is linked to CEO personality, and that these cultural influences impact financial performance at the firm level.

There are a variety of channels through which corporate culture could hypothetically operate. Donangelo (2014) shows that firms in industries with greater labor mobility respond by improving flexibility for workers, which in turn leads to greater operating leverage. This added flexibility is a mechanism to protect shareholders who face the productivity losses when talented employees leave in mobile labor industries. Donangelo (2014) demonstrates that this greater flexibility leads firms in highly mobile industries to earn returns 5.3% higher than firms in less mobile industries.

A second possible channel for firm culture to influence financial performance is through employee effort, learning, and retention. In particular, to the extent that employees enjoy their jobs

more, they may be more effective in those jobs and this may lead to improved innovation, as employees are vital for innovation (e.g. Zingales, 2000; Chang et al., 2015). Brown, Fazzari, and Petersen (2009) find that the financing environment significantly influences R&D. Young firms have significantly higher R&D expenditures when positive finance supply shifts occur, while firms overall finance R&D via cash flows and stock issuance. Overall, the authors find that R&D is a potentially important channel for economic growth. At a firm level, this implies that greater innovation is likely to lead to improved firm growth and financial performance.

Similarly, Sheridan (1992) shows that corporate culture influences employee retention with better organization culture leading to better employee retention. Tellis, Prabhu, and Chandy (2009) show that culture plays a role in influencing firms' innovation levels, while Hellman (2007) finds that the attitudes of companies towards employees influence the relative innovativeness of those employees.

While past research has advanced the idea that national and firm-level culture matter, what remains unclear in much of the literature is exactly what role culture plays in growth and the mechanism through which culture impacts firm performance. To the extent that culture matters, one of the places where it should most likely manifest itself is employee behavior. Employees dealing with the firm on a day-to-day basis are likely to have a deeper appreciation for the benefits and costs of a firm's culture than shareholders who operate at an arm's length. In light of this, firm treatment of employees is likely to be one of the most important facets of culture.

Firms may treat their employees well for one of two reasons – either because it is economically sensible to do so, or because of governance issues resulting from managerial entrenchment, excessive perquisite consumption, etc. The impact of an employee-friendly culture

on firm value is thus unclear. On one hand, an employee-friendly culture could reflect agency costs associated with managers who derive private benefits from having more satisfied (e.g. overpaid and underworked) employees (Jensen and Meckling, 1976). This in turn could have adverse effects on firm value and performance. On the other hand, firms may treat their employees well because they recognize they are key assets (Rajan and Zingales, 1998; Berk, Stanton, and Zechner, 2010; Carlin, and Gervais, 2009); as such, treating employees well may encourage them to exert more effort, which could promote innovation (Chang et al. 2015) and translate into better performance and higher valuation. The evidence to date suggests that employee satisfaction has positive consequences (Chang et al., 2015; Edmans, 2011; Edmans et al., 2015). We posit that an employee-friendly culture will have positive valuation consequences. Following this argument, we formulate our main hypothesis:

Hypothesis 1: An employee-friendly firm culture will have a positive impact on firm value and financial performance.

In addition to exploring the impact of an employee-friendly culture on firm value and performance, we examine the channels through which such culture affects firm performance. An employee-friendly culture may have positive impact on firm value by encouraging employees to work harder or to become more efficient. If this channel drives the positive valuation consequences of culture on firm value, we should observe a positive impact of culture on technical efficiency. We explore this hypothesis using two measures of technical efficiency: 1) Sales-to-assets and 2) the costs of goods sold-to-employees.

As Chang et al. (2015) document, employee treatment through improved compensation has positive impact on corporate innovation. An employee-friendly culture that encourages employees

to exert more effort could improve innovation (Zingales, 2000). Thus, the impact of culture on firm value could stem from improved innovation. We examine whether this channel is at work by exploring the impact of firm culture on R&D expenditures and capital expenditures.

The impact of an employee-friendly culture on firm value and performance is likely to be more pronounced in countries with higher labor mobility (e.g. Edmans et al., 2015). It is natural to assume that firms facing greater labor mobility within their workforce will respond by adopting more employee-friendly policies as a result of competition for employees within their industry. Firms with more employee-friendly cultures are more likely to reap the benefits of retaining productive employees, and keeping such employees happier should be more important in countries in which employees can easily switch jobs. We test this hypothesis using two proxies for labor market mobility: 1) *EFW*- Economic Freedom of the World Index from the Fraser Institute, and 2) *EconFree* – Index of Economic Freedom from the Heritage Foundation and the Wall Street Journal.

As a final test, we examine how country-level culture impacts how an employee-friendly culture affects firm performance. Specifically, we argue that certain cultures may value the adequate treatment of employees more than others. To examine this hypothesis, we use two commonly used measures of culture from Hofstede (1980) that are likely to influence firm's behavior towards their employees. Specifically, we use Power distance and Individualism.

3. Data and Methodology

3.1. Measure of Employee-Friendly Culture

We measure a firm's "employee-friendly" culture by focusing on how a firm treats its current employees. To do so, we rely on scores for five categories of social performance using data

from ASSET4 ESG database. ASSET4 rates companies on 250 key performance indicators which are aggregated into 18 categories that are grouped into four major pillars of performance: Economic, Environmental, Social, and Corporate Governance. Given our interest in measuring employee treatment, we focus on five categories that fall under the Social Performance pillar:

1) Employment quality − measures a company's management commitment and effectiveness towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs, and maintaining relations with trade unions.[6]

2) Health and safety − measures a company's management commitment and effectiveness towards providing a healthy and safe workplace. It reflects a company's capacity to increase its workforce loyalty and productivity by integrating into its day-to-day operations a concern for the physical and mental health, well-being, and stress level of all employees.[7]

3) Training and Development − measures a company's management commitment and effectiveness towards providing training and development (education) for its workforce. It reflects a company's capacity to increase its intellectual capital, workforce loyalty and productivity by developing the workforce's skills, competences, employability, and careers in an entrepreneurial environment.[8]

[6] Using information obtained from firms' annual reports and other filings, the employment quality score is based on answers to questions such as: Does the company have a competitive employee benefits policy? What is the total value of the stock-based compensation of employees during the year?

[7] The health and safety score is based on factors that include: Total hours of employee training on health & safety policies and procedures; the existence of an employee health and safety team.

[8] Factors that are incorporated into the training and development score include: the total training costs from all the training performed by all employees; average hours of training per year per employee.

4) Diversity − measures a company's management commitment and effectiveness towards maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase its workforce loyalty and productivity by promoting an effective life-work balance, a family-friendly environment, and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation.[9]

5) Human Rights − measures a company's management commitment and effectiveness towards respecting the fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced, or compulsory labor.[10]

ASSET4 assigns a percentage score to each of the above categories based on several factors. The data used to compile the scores are obtained from firms' annual reports and other regulatory filings. Our primary measure of culture, *Culture-PCA,* is the first principal component of the scores on these five categories. The first principal component captures 60% of the variation. We use the Eigenvalue one criterion, that is, we retain components with Eigenvalues of one or greater. The first principal component is the only component meeting this criterion. In robustness tests, we also use the average of the above five categories, *Culture-Average*. Higher values of our measures indicate a more employee-friendly culture.[11]

3.2. Sample Description and Descriptive Statistics

[9] Factors considered in the Diversity score include: the percentage of women managers; percentage of employees with a disability (either mental or physical).

[10] The human rights score is based on factors that include: whether the company is a member of the Ethical Trading Initiative (ETI); whether the company has a policy to guarantee the freedom of association universally applied independent of local laws and whether the company has a policy for the exclusion of child, forced, or compulsory labor.

[11] Our measure of employee-friendly culture is similar in spirit to the employee treatment measure used by Bae, Kang, and Wang (2011) in their study of US firms.

Our initial sample consists of all firms covered by ASSET4 ESG database from 2002 through 2013 with available data on the five key performance indicators of social performance. The database covers a subset of firms from DataStream and WorldScope. The ASSET4 universe comprises over 4000 firms from major indices including MSCI Emerging Markets, MSCI World, CAC40, DAX, FTSE250, S&P 500, NASDAQ 100, STOXX 600, ASX 300, SMI, and Bovespa. The database coverage varies by country, with coverage of developed markets starting in 2002, while some emerging markets begin coverage in 2007 or beyond. Our initial sample consists of 4,645 firms and 32,537 firm-year observations covering 59 countries. We exclude firms with missing values for total assets, as well as those with negative sales or negative book value of equity. We proceed with our screening by excluding firms from regulated industries (financials – SIC codes between 6000 and 6999 and utilities – firms with SIC codes between 4900 and 4949) and those with missing values on our control variables. Finally, we exclude countries with less than three years of available data and those with fewer than three firms.[12] We then collect data on country-level variables used as controls from the World Bank's World Development Indicators. To mitigate the influence of outliers we winsorize all variables at the top and bottom 1% of the distribution. While ASSET4 coverage starts in 2002, our sample period starts in 2003 because we use lagged measures of our culture variable in our analyses. Our final sample consists of 3,034 firms from 44 countries totaling 14,335 firm-year observations.

Table I shows a description of our sample. Our sample is fairly geographically diverse. Firms from the US (827), Japan (341), and the United Kingdom (278) comprise about 47% of our sample. While the United States makes up a large portion of our sample as would be expected

[12] The following countries were dropped from our sample because they had fewer than three firms with available data: Czech Republic (2), Kazakhstan (1), Kuwait (1), Morocco (1), Peru (2), Qatar (1), Sri Lanka (1), and United Arab Emirates (2). Including firms from these countries did not alter our results.

given the size and development of its capital markets, our sample population is an international one. International firms make up more than 70% of the total sample, and roughly 43% of our firms are outside of the US, Canada, and the UK. While our sample is relatively small, it is comprised of large firms, covering about 75% of the total market capitalization of all firms covered by WorldScope as of 2013.

[Insert Table I Here]

Table II shows descriptive statistics of our main firm- and country-level variables. Firms in our sample are large, with average (median) total assets of $4.9 billion ($4.5 billion). The average (median) Tobin's *q* is 1.81 (1.44). The average (median) of our main proxy for culture, *Culture-PCA, is 0.05 (-0.07)* with a standard deviation of 1.71.

[Insert Table II here]

Table III shows the pairwise correlation coefficients between all of our variables of interest. Notably, the results show a strong correlation between our measure of firm culture (which again is based on a principal components analysis from a sequence of firm-level cultural variables) and many of the other variables. While there is a negative correlation between culture and Tobin's *q*, the culture proxy is positively correlated with various measures of firm performance (*ROA*, *ROE*, sales-to-assets). Culture also displays a positive correlation with firm size and firm-level governance and a negative correlation with the relative level of capital expenditures to assets. This suggests that firm culture is correlated with important firm characteristics that drive financial performance and implies that we should control for these factors when examining cultural impact at the firm-level to avoid potential omitted variables biases. Many of the other variables also

display unsurprising correlations, but none of these correlations is high enough to suggest a multicollinearity issue.

[Insert Table III Here]

4. Results

4.1. A. Employee-Friendly Culture and Firm Value

We first examine whether having an employee-friendly culture is associated with an increase in firm value, per our main hypothesis. The primary regression specification is a standard OLS regression using Tobin's *q* (market value-to-book value of assets) as our main proxy for firm value. Our regressions include several firm-level, country-level, and industry-level control variables used in prior research to explain Tobin's *q* (Aggarwal et al. 2009; Gompers et al. 2010; Doidge et al., 2004). Specifically, we include the following firm-level control variables: (1) *Size*, measured as the log of book value of assets; (2) *Age*, the log of firm age; (3) *Leverage*, debt divided by total assets; (4) *Cash*, cash divided by total assets; (5) *PPE*, property, plant, and equipment divided by sales; (6) *Foreign sales*, the two-year average foreign sales divided by sales; (7) *R&D*, the two-year average research and development expenses divided by sales; (8) *Capex*, capital expenditures divided by total assets; (9) *Closely-held*, the percentage of a firm's shares that are closely held; (10) *ADR*, a variable indicating firms cross-listed on U.S. stock exchanges, and (11) *GOVINDEX,* a firm-level governance index using 25 governance attributes in a way parallel to Aggarwal et al. (2009).[13] We include the log of annual GDP per capita (*Log GDP per capita*) and the growth rate of real GDP (*GDP Growth*) to control for financial development and growth, and

[13] The governance index is constructed using data from ASSET4 following Aggarwal et al. (2009). The 25 governance attributes cover four broad categories: Board (12 attributes); Audit (3 attributes); Anti-takeover (6 attributes), and compensation and ownership (4 attributes). For each of the 25 attributes, our index takes the value of one if the company meets the criteria, and 0 otherwise. The index is expressed as a percentage, with a maximum value of 100% if a firm satisfies all of the available criteria.

control for country-level governance using the *Governance index*, which is the average of the six governance indicators of Kaufmann, Kraay, and Mastruzzi (2009). All control variables are lagged one year. In addition to including country, industry, and year fixed effects, our model contains a variable to control for time trend in Tobin's q of an industry, *Industry q*, defined as the annual median Tobin's q in the firm's industry (two-digit SIC code). Our regression model to test for the average effect of culture on firm value is:

$$q = \alpha + \beta_1 Culture + \sum \beta_m Controls + \sum \beta_n FE + \varepsilon_{it} \,, \quad (1)$$

Culture refers to our proxies for employee-friendly culture, *Culture-PCA* and *Culture-average*. Per Hypothesis 1, our variable of interest is the coefficient on β_1 and we expect this to be positive and significant if an employee-friendly culture is associated with positive valuation consequences. Panel A of Table IV shows the results from various specifications of equation 1. In Models (1) and (2) we show results using our main proxy of culture – *Culture-PCA*. In Model (3) we report results using an alternate measure of culture based on the average of the five dimensions of the social score: 1) *Employment quality*; 2) *Health and safety*; 3) *Training and development*; 4) *Diversity* and 5) *Human rights*. Finally, in Models (4) and (5) we report results using indicator variables for firms with high values of employee-friendly culture, using the *Culture-PCA* and *Culture-average* measures, respectively. Specifically, we create an indicator variable *High Culture-PCA* (*High Culture-average*) that is equal to one if the firm's *Culture-PCA* (*Culture-average*) measure as of the prior year-end is in the top 25% of the distribution in its country and zero otherwise. The results show a positive and significant coefficient on our main variable of interest (β_1) across all model specifications. The results are both statistically and economically significant. Using the coefficient in Model (1), a one-standard-deviation increase in *Culture-PCA* (1.71) is associated

with an 8.5 percent increase in Tobin's *q*.[14] The results are of similar magnitude when using the alternate proxy for an employee-friendly culture.

The results in Panel A of Table IV are in line with Hypothesis 1 and suggest than an employee-friendly culture is associated with higher firm value. Edmans et al. (2015) find that abnormal returns are higher for firms with higher employee satisfaction. They measure employee satisfaction using lists of the "Best Companies to Work For" in 14 countries. Our employee-friendly culture variable may be capturing firms with higher levels of employee satisfaction. Firms with a high value of *Culture-PCA* may be precisely those companies in the list of Best Companies to Work For. We explore this by running regressions including an indicator, *BC*, that is equal to one if the company was included in the "Best Company to Work For" list in the prior year and zero otherwise. The results are shown in Model (2) of Panel A of Table IV. Consistent with the findings in Edmans et al. (2015), the Best Company indicator variable (*BC*) comes in positive and significant, suggesting that Tobin's *q* is higher for firms in the Best Companies lists. However, our *Culture-PCA* variable remains positive and statistically significant even after controlling for companies included in the Best Companies lists. This suggests that our employee-friendly culture variable picks up firm characteristics that are associated with higher value that go beyond the measure used by Edmans et al. (2015). What these results suggest is that there is value in investing in an employee-friendly culture even beyond the benefits associated with the inclusion in the Best Companies to Work For lists.

4.2. Endogeneity in Employee-Friendly Culture and Firm Value

[14] The coefficient on *Culture-PCA* in Model (1) of Table IV is 0.0895. Thus, a one-standard-deviation increase in *Culture-PCA* (1.71) is associated with a 0.153 (1.71 x 0.0895) increase in Tobin's *q*, which represents an 8.5% increase (0.153/1.81).

Our results thus far suggest that an employee-friendly culture is associated with higher Tobin's q, which adds support to our main hypothesis. One potential concern with our results is that firms with higher value (or better prior performance) may be able to spend more on their employees to create a more employee-friendly working environment. This concern is somewhat mitigated in our setting because firm culture tends to be largely fixed over long periods (see e.g. Lazear, 1995; Kreps, 1990). Nonetheless, reverse causality is a potential concern. To address this, we first use a dynamic panel GMM estimator recommended by Wintocki, Linck, Netter (2012) as a way to address endogeneity concerns in corporate finance. The dynamic panel GMM estimator was introduced by Holtz-Eakin, Newey, and Rosen (1988) and Arellano and Bond (1991) and further developed by Arellano and Bover (1995) and Blundell and Bond (1998). This dynamic panel GMM estimator uses distant lags of firm value and other firm characteristics as instruments in identifying the relationship between firm culture and firm value. We estimate the following model:

$$q_{i,t} = \alpha + \beta_1 Culture_{i,t-1} + \beta_2 q_{i,t-1} + \beta_3 q_{i,t-2} + \beta_4 q_{i,t-3} + \theta X_{i,t-1} + \vartheta Z_{c,t-1} + \varepsilon_{i,t} \quad (2)$$

In equation 2 we incorporate three lags of Tobin's q as explanatory variables, in addition to the firm (X vector) and country-level (Z vector) controls used in equation 1.[15] Historical measures of Tobin's q and other firm characteristics that are lagged four periods or more are available as instruments in these estimations. As such, our sample size is reduced to 4,962 firm-year observations. Results from the estimation of equation 2 are shown in Panel B of Table IV. In Model (1) we show results using our main proxy for culture (*Culture-PCA*), while Model (2) shows results

[15] In untabulated results we run regression of Tobin's q on lagged values of Tobin's q and controls, and find significant coefficients on lags one through three of Tobin's q. We thus include three lags of our dependent variable in the regressions.

using our alternate proxy (*Culture-average*). We report the results from specification tests at the bottom of Panel B: 1) the *AR* (2) second-order specification test, and 2) the Hansen *J*-test of overidentifying restrictions. In both Models, the *AR* (2) test fails to reject the null hypothesis of no second-order serial correlation.[16] In addition, the Hansen *J*-test of overidentifying restrictions fails to reject the null hypothesis that our instruments are valid.[17] To conserve space, we only report the coefficients on the variables of interest in Panel B of Table IV and omit the control variables. The results in Panel B confirm our prior findings. The coefficient on *Culture-PCA* remains positive and statistically significant at the 5% level, even after accounting for potential dynamic endongeneity between firm culture and firm value.

As an alternate way to address endogeneity concerns, we employ a two-stage least squares (2SLS) procedure using instrumental variables for our measure of employee-friendly culture. We use two instruments: 1) *Capital* - an indicator variable that is equal to one for firms whose headquarters are located in their home country's capital and zero otherwise, and 2) *Foreign operations* – an indicator variable that is equal to one for firms with foreign operations as of the prior year-end and zero otherwise.[18] Valid instruments must satisfy two conditions: 1) the relevancy condition− the instrument and the endogenous variable have to be correlated after controlling for all other exogenous variables, and 2) the exclusion restriction− the instrument should not be correlated with the error term from the second-stage regression. While no instrument is perfect, our instruments seem to satisfy both conditions of validity (we discuss the tests of validity below). A firm's culture may be influenced by the location of its headquarters; firms

[16] The *p*-values of the AR (2) tests are 0.426 and 0.420, respectively.
[17] In Model (1) of Panel B of Table IV, the Hansen *J*-statistic is18.0 (*p*-value of 0.206), while in Model (2), the *J*-statistic is 18.3 (p-value of 0.194).
[18] We identify firms with foreign operations using the "International assets" variable from WorldScope (WC07151). International assets represent total or identifiable assets of foreign operations.

whose headquarters are located in densely populated areas (such as a country's capital) may be influenced by multi-cultural environment in those cities, relative to other firms located in more remote areas with a more homogeneous population. Similarly, firms with operations in other countries may be influenced by their exposure to different cultures, which may affect their culture. However, neither the location of the firm's headquarters nor the existence of foreign operations should have a first-order effect on firm value or performance. Our tests validate this assumption. Panel C of Table IV shows results from the instrumental variable (2SLS) regressions. Model (1) shows results from the first-stage OLS regressions using the *Culture-PCA* as the dependent variable; we use the predicted values from the first-stage in the second-stage regressions (Model (2)). Our instruments exhibit significant explanatory power for firm-level employee-friendly culture. The coefficient on *Capital* (*Foreign operations*) is negative (positive) and statistically significant. This implies that firms with headquarters in capital cities have less employee-friendly cultures, while those with foreign operations have more employee-friendly cultures, perhaps influenced by their experiences in other countries. The partial *F*-tests (*p*-value of 0.000) reject the null hypothesis that the instruments are jointly zero. In addition, the Hansen's *J*-statistic overidentification test (χ^2) fails to reject the null hypothesis that the instruments are valid.[19] In Model (2) we report results from the second-stage regressions and confirm our prior findings.[20] Firm-level culture continues to have a positive impact on firm value, even after correcting for endogeneity using the instrumental variable approach.

[Insert Table IV Here]

[19] *p*-values from Hansen's J-test statistics are (0.257 and 0.258) in Models (1) and (2), respectively.
[20] As a further test we include *Capital* and *Foreign Operations* in our equation 2 valuation regression and observe that neither coefficient significantly impacts Tobin's Q.

4.3. Employee-Friendly Culture and Firm Performance

We next examine whether an employee-friendly culture is associated with improved firm performance. First, we explore whether a more employee-friendly culture is associated with higher profitability. In an employee-friendly environment, employees may be more motivated to work harder, which could translate into higher profitability. To examine this, we run regressions similar to equation 1 using two proxies for profitability: 1) return on assets (*ROA)* - net income divided by lagged assets, and 2) return on equity (*ROE)* - net income divided by lagged book value of equity.

The results from regressions of firm profitability on culture are shown in Table V. In line with our hypothesis, the results in Table V show a positive and significant coefficient on *Culture-PCA.* Firms with a more employee-friendly culture tend to have higher *ROA* and *ROE*. The results are economically significant. As an example, the coefficient on *Culture-PCA* in Model (1) indicates that a one-standard-deviation increase in *Culture-PCA* is associated with a 14% increase in *ROA*.[21] The results are similar when we use *ROE* as our measure of profitability. In Models (3) and (4) we show results from regressions in which we control for firm that are listed as "Best Companies to Work For." Our results do not change when we control for such firms, although our findings show that firms included in the list of "Best Companies to Work For" are more profitable.

[Insert Table V here]

We next explore whether an employee-friendly culture is associated with improved technical efficiency. We posit that firms with a more employee-friendly culture will have a labor

[21] The coefficient on *Culture-PCA* in Model (1) of Table V is 0.0049. Thus, a one-standard deviation increase in *Culture-PCA* (1.71) is associated with a 0.0084 increase in *ROA*. From Table II, the average *ROA* is 0.06. Thus, the 0.0084 increase corresponds to a (0.0084/0.06) 14% increase.

force that is more motivated. Firms with more driven employees should be able to maximize their earnings potential and improve technical efficiency by making better products, delivering better services, and potentially lowering costs. To explore this hypothesis, we will use two measures of technical efficiency used in the literature (see e.g. Loderer, Stulz, and Waelchli, 2014): 1) *Sales-to-assets* and 2) cost of goods sold per employee (*COGS-to-employees*). Per our hypothesis, we should observe that a more employee-friendly culture (higher value of *Culture-PCA)* is associated with higher asset turnover (higher *Sales-to-assets*) and a reduction in costs (lower *COGS-to-employees*). We report results from these regressions in Table VI. In all regressions we control for various factors that have been shown to affect technical efficiency, including: firm age, size, capital expenditures, leverage, RD expenses-to-sales, market-to-book ratio, volatility, and *ROA*.

The results in Models (1) and (2) of Table VI show that an employee-friendly culture is associated with improved technical efficiency. Taking the coefficients in Model (1), a one-standard-deviation increase in *Culture-PCA* is associated with a 0.101 (1.71 x 0.0588) increase in *Sales-to-assets*, which represents a 9.7% increase relative to its mean (1.04). The reduction in costs (Model (2)) is of similar magnitude. Per Model (2), a one-standard-deviation increase in *Culture-PCA* is associated with a 12.3% reduction in *COGS-to-employees*.[22] This is consistent with our hypothesis that a more employee-friendly culture encourages employees to work harder and this increased effort appears to improve efficiency, and ultimately firm value.

We next examine whether employee-friendly firms tend to innovate more, or invest more in innovation. We posit that firms with a more employee-friendly culture should tend to innovate more. Innovation should be higher for firms with more motivated and satisfied employees. To test

[22] From Model (2) in Table VI, a one-standard deviation increase in *Culture-PCA* is associated with a -42.91% (1.71 x -25.0939) change in *COGS-to-employees*, which corresponds to a 12.3% (42.91/349.87) reduction, relative to its mean (349.87).

this hypothesis, we examine how culture affects firm investment activities using two measures of investment: R&D expenses and Capital expenditures. We focus on these two measures because data availability prevents us from using more direct and widely used measures of innovation such as patents. We present results from these regressions in Models (3) and (4) of Table VI.

The results in Table VI add support to our hypothesis that firms with a more employee-friendly culture tend to innovate more. Investment in R&D and capital expenditures are higher for firms with more employee-friendly cultures. The results are both economically and statistically significant. A one-standard deviation increase in *Culture-PCA* is associated with an 8% increase in *R&D-to-sales* (Model (3)).[23] The results using capital expenditures are of similar magnitude.

[Insert Table VI Here]

Overall, our results in this section corroborate our findings that an employee-friendly culture adds value through its impact on firm performance and innovation. The evidence shows that firms benefit from investing in a more employee-friendly culture. The results suggest that more motivated employees tend to be more productive and are more willing and able to innovate. Thus, firms with more employee-friendly culture are valued higher.

4.4. The Impact of Labor Market Flexibility

Edmans et al. (2015) conclude that employee satisfaction has a stronger impact on abnormal returns in countries with greater labor mobility. Therefore, in this section, we investigate whether firms in countries with greater labor mobility will adopt more employee-friendly policies as a result of competition in the labor force. These firms are more likely to benefit by providing workers with a more employee-friendly environment and should be more valuable where labor

[23] From Model (3) in Table VI, a one-standard deviation increase in *Culture-PCA* is associated with a 0.0024 (1.71 x 0.0014) increase in *R&D-to-sales*, which corresponds to an 8% (0.0024/0.03) increase, relative to its mean.

mobility is higher. We test this hypothesis in Table VII using two proxies for labor market mobility: 1) *EFW*- Economic Freedom of the World Index from the Fraser Institute, and 2) *EconFree* – Index of Economic Freedom from the Heritage Foundation and the Wall Street Journal. Specifically, we run regressions using interactions between our *Culture-PCA* variable and the *EFW* (*EconFree*) index. In Models (2) and (4) we use interactions with indicator variables of high labor mobility. Specifically, we create an indicator variable *High EFW* (*High EconFree*) that is equal to one if a country's *EFW* (*EconFree*) measure is above the cross-country median as of the prior year-end and zero otherwise. In Models (2) and (4) we interact our *Culture-PCA* variable with these two indicator variables of high labor market mobility.

In Models (1) and (2) we use *EFW* and find that indeed in countries with greater labor market mobility employee-friendly policies have a positive impact on Tobin's *q*. The results are economically significant. Taking the coefficients in Model (2), a one-standard deviation increase in *Culture-PCA* is associated with a 4.2% increase in Tobin's *q* (0.076/1.81) in countries with below median *EFW*. The impact is stronger in countries with high labor market mobility; a one-standard-deviation increase in *Culture-PCA* is associated with a 6% increase in Tobin's *q* in *High EFW* countries. The *EconFree* measure is included in our regression specifications Models (3) and (4). The results are similar albeit not quite as significant as our results using *EFW*. Therefore, in Table VII we conclude that firm value is greater when labor mobility is greater and firms provide a friendlier environment for their employees. Importantly, in contrast with the results in Edmans et al. (2015), we find evidence that an employee-friendly culture improves firm value even in countries with low labor market mobility.

[Insert Table VII Here]

4.5. The Impact of a Country's Culture

Our results thus far strongly suggest that an employee-friendly culture has positive impact on firm value, especially in countries with high labor mobility. As a final test, we examine whether the country's culture has any impact on the relation between an employee-friendly culture and firm value. Certain cultures may value the adequate treatment of employees more than others, and we posit that firms that invest more in their employees may observe larger rewards in such countries. We use two well-established measures of a country's culture from Hofstede (1980): power distance and individualism that have been widely used in the literature (see e.g. Karolyi, 2015). Power distance measures the degree to which the less powerful members of a society accept and expect that power is distributed unequally. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification. We thus posit that treating employees well may be valued less, or yield fewer benefits in countries with high power distance. Individualism captures the extent to which people's self-image is defined in terms of "I" or "we." Given this, we posit that treating employees well may be more productive in countries with higher levels of individualism. To examine these hypotheses, we create indicator variables, *High Power distance* and *High Individualism,* that equal one for countries with above median values of *Power distance, or Individualism*, respectively and zero otherwise. We then run equation 1 regressions including interactions between our culture proxies and these two indicator variables.

Results from these regressions are shown in Panel B of Table VII. We do not report coefficients on country- and firm-level controls to conserve space. In Models (1) and (2) we interact *Power distance* (*High Power distance*) with the *Culture-PCA*. In Models (3) and (4) we show results using interactions with *Individualism* (*High Individualism*). The results show that the

impact of an employee-friendly culture on firm value is stronger in countries with low *Power distance* and high *Individualism*. The magnitude of the results is economically large. As an example, taking the coefficients in Model (2) of Panel B of Table VII, a one-standard-deviation increase in *Culture-PCA* is associated with a 10.3% increase in Tobin's *q* in low power distance countries, but only a 5.6% increase in Tobin's *q* in high power distance countries.[24] The results for countries with high individualism are of similar magnitude, and suggest that the impact is stronger in more individualistic countries. Overall, the results in this section suggest that treating employees well is valued more in certain cultures; specifically, employee-friendly cultures are valued higher in countries with low power distance and high individualism.[25]

5. Robustness

In Table VIII we present our main valuation regression results from Table IV, Panel A using alternative specifications. In Table VIII, Model (1) we implement our regression using firm fixed effects and find that our main measure – *Culture-PCA* is still positive and significant. We argue that although our results are similar, using firm fixed effects is not entirely correct as culture is fairly stable over time (Lazear, 1995; Kreps, 1990) and implementing a regression with fixed effects would bias the estimates downward. Next in Model (2) we exclude US firms from the sample as they account for roughly 27% of the sample. The results here are very similar in significance and magnitude as those in Table IV, Panel A, Model (2). As a third robustness test we calculate value using market-to-book value of equity instead of Tobin's *q*. Again in Model (3) we

[24] From Model (1) of Panel B of Table VII, a one-standard deviation increase in *Culture-PCA* (1.71) is associated with a 0.187 (1.71 x 0.1093) increase in Tobin's *q* in low power distance countries, a 10.3% increase relative to its mean (1.81). In high power distance countries, a one-standard deviation increase in *Culture-PCA* is associated with a 0.102 (1.71 x [0.1093+-0.0495]) increase in Tobin's *q*, which represents a 5.6% increase.

[25] In untabulated results, we use two additional measures of culture from Hofstede (1980): Uncertainty avoidance and Masculinity. We find that the impact of an employee-friendly culture is stronger in countries with low Uncertainty avoidance. We do not find any differences among countries with different levels of Masculinity.

find similar results to those reported earlier. Finally, in Models (4) we examine how firms with a more employee-friendly culture are affected by the global financial crisis. To do so, we interact our Culture-PCA variable with an indicator, Crisis, that is equal to one for years 2008-2009 and zero otherwise. We find that firms with more employee-friendly cultures perform better than their peers during the crisis. This result underscores the importance of an employee-friendly culture, especially during times of economic turmoil.[26]

[Insert Table VIII Here]

6. Conclusion

Past research examines a link between executive perquisites and risk taking. To date though, most research on governance as it relates to firm culture has been focused on executives and their decisions. Yet anecdotal observation suggests that many firms offer lavish perks to employees and go out of their way to try to create an employee-friendly culture. We examine the economic rationale behind this behavior. Overall, we show that firms that invest more in their employees (for example by providing higher levels of compensation, more benefits and training, and equal opportunities for advancement) are valued higher and perform better. Specifically, we find that firms with a more employee-friendly culture have higher value (Tobin's *q*) and profitability (*ROE* and *ROA*).

We further find that the improvement in firm value and profitability appears to stem from improved firm-level technical efficiency (i.e. higher sales-to-assets; lower costs) and better

[26] As an additional robustness test (in untabulated results), we run our baseline regression of firm value using the individual components of our aggregate measure of employee-friendly culture. The results, show that individually, all of our five measures have a positive and significant impact on Tobin's q. The magnitudes are similar to those reported in Table IV. When we include all of the measures in a single regression, *Employment Quality*, *Training and Development*, and *Diversity* continue to load positively and retain their statistical significance, while *Human Rights* and *Health and safety* although still positive are no longer significant. The latter is not surprising given the high correlations among these measures. The principal components analysis allows us to circumvent this potential issue.

innovation (through R&D). Our results suggest that a more employee-friendly culture adds value via enhanced employee motivation that encourages employees to become more efficient and to innovate more. Additionally, consistent with past research, the impact of culture on firm value is maximized in countries with significant labor mobility that protects shareholder interests in high labor mobility situations.

Overall, these findings suggest that firms are acting rationally on behalf of shareholders in offering employees perks and benefits that are consistent with an employee-friendly culture. Shareholders see benefits both in cash flows and in the valuation placed on their investment. The optimal level of employee benefits remains an open question, but firm-friendliness towards employees need not be detrimental to shareholders.

Appendix A- Variable Definitions

Culture-PCA	The first principal component of the percentage score given by ASSET4 database on five areas: 1) employee quality; 2) health and safety; 3) training and development; 4) diversity, and 5) human rights. Each component receives a percentage score by ASSET 4 based on several factors.
Culture-average	The average of the percentage score given by ASSET4 database on five areas: 1) employee quality; 2) health and safety; 3) training and development; 4) diversity, and 5) human rights.
Tobin's q	Total assets less book value of equity plus market value of equity divided by book value of total assets.
ROA	Net income divided by lagged book value of assets.
ROE	Net income divided by lagged book value of equity.
Sales-to-assets	Sales divided by book value of assets as of the beginning of the year.
COGS-to-employees	Cost of goods sold divided by the total number of employees.
R&D	Research and development (R&D) expenses divided by sales.
Capex-	Capital expenses scaled by the lagged book value of assets.
Size	Log of total assets (US$ 000).
Age	Log of firm age. Firm age is the number of years since the firm was incorporated. When the date of incorporation is unavailable, firm age is calculated as the number of years since the firm first appeared on the DataStream and WorldScope databases.
Leverage	Total debt divided by book value of assets.
Cash	Cash divided by total assets.
PPE	Property, plant, and equipment, scaled by sales.
Foreign sales	Two-year average of the ratio of foreign sales to sales.
Closely-held	Percentage of closely held shares.
ADR	Indicator that equals one if the firm is cross-listed on a U.S. stock exchange and zero otherwise.
GOVINDEX	An equally-weighted measure of 25 governance attributes covering four broad categories: Board (12 attributes); Audit (3 attributes); Anti-takeover (6 attributes), and compensation and ownership (4 attributes). Following Aggarwal et al. (2009),

	for each of the attributes, our index takes the value of one if the company meets the criteria, and 0 otherwise. The index is expressed as a percentage, with a maximum value of 100% if a firm meets all of the available criteria. For firms that have missing attributes, we compute the index based on the percentage of all nonmissing attributes that a firm satisfies.
Industry q	The median Tobin's *q* for firms in the same industry-year (based on two-digit SIC code).
Log GDP per capita	Annual log of real gross domestic product per capita (constant U.S. dollars).
GDP Growth	Annual growth in real gross domestic product (GDP).
Governance index	The average of all six Kaufmann, Kraay, and Mastruzzi (2009) governance indicators: political stability, voice and accountability, government effectiveness, regulatory quality, control of corruption, and rule of law. Each of the indices ranges from -2.5 to 2.5, with higher values indicating better governance.
EFW	Economic Freedom of the World Index form the Fraser Institute. Higher values indicate more flexible labor markets.
EconFree	Index of Economic Freedom from the Heritage Foundation and Wall Street Journal. It measures economic freedom based on trade freedom, business freedom, investment freedom, and property rights. Higher values indicate more economic freedom.

References

Aggarwal, R., I. Erel, R. Stulz, and R. Williamson, 2009, Differences in governance practices between U.S. and foreign firms: Measurement, causes, and consequences, *Review of Financial Studies* 22, 3131–3169.

Arellano, M., and S. Bond, 1991, Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations, *Review of Economic Studies* 58, 277-297.

Arellano, M., and O. Bover, 1995, Another look at the instrumental variable estimation of error-component models, *Journal of Econometrics* 68, 29-51.

Bae, K.H., J.K. Kang, and J., Wang, 2011, Employee treatment and firm leverage: A test of the stakeholder theory of capital structure, *Journal of Financial Economics* 100, 130-153.

Berk, J., R. Stanton, and J. Zechner, 2010, Human capital, bankruptcy, and capital structure, *Journal of Finance* 65, 891–926.

Blundell, R., and S. Bond, 1998, Initial conditions and moment restrictions in dynamic panel data models, *Journal of Econometrics* 87, 115-143.

Brown, J. R., S.M. Fazzari, and B.C. Petersen, 2009, Financing innovation and growth: Cash flow, external equity, and the 1990s R&D boom, *The Journal of Finance* 64, 151-185.

Carlin, B., and S. Gervais, 2009, Work ethic, employment contracts, and firm value, *Journal of Finance* 64, 785–821.

Chang, X., K. Fu, A. Low, and W. Zhang, 2015, Non-executive employee stock options and corporate innovation, *Journal of Financial Economics* 115, 168-188.

Chatman, J. A., D.F. Caldwell, C.A. O'Reilly, and B. Doerr, 2014, Parsing organizational culture: How the norm for adaptability influences the relationship between culture consensus and financial performance in high-technology firms, *Journal of Organizational Behavior* 35, 785-808.

Chui, Andy, S. Titman, and J. Wei, 2010, Individualism and momentum around the world, *Journal of Finance* 65, 361-392.

Core, J., and W. Guay, 1999, The use of equity grants to manage optimal equity incentive levels, *Journal of Accounting and Economics* 28, 151–184.

Donangelo, A., 2014, Labor mobility: Implications for asset pricing, *The Journal of Finance* 69, 1321-1346.

Doidge, C., G.A. Karolyi, and R. Stulz, 2004, Why are foreign firms listed in the U.S. worth more?, *Journal of Financial Economics* 71, 205–238.

Edmans, A., L. Li, and C. Zhang, 2015, Employee satisfaction, labor market flexibility, and stock returns around the world, London Business School Working Paper.

Edmans, A. 2011, Does the stock market fully value intangibles? Employee satisfaction and equity prices, *Journal of Financial Economics* 101, 621-640.

Fauver, L., and M.E. Fuerst, 2006, Does good corporate governance include employee representation? Evidence from German corporate boards, *Journal of Financial Economics 82*, 673-710.

Fauver, L., and M.B. McDonald, 2015, Culture, agency costs, and governance: International evidence on capital structure, *Pacific-Basin Finance Journal* 34, 1-23.

Gompers, P., J. Ishii, and A. Metrick, 2010, Extreme governance: An analysis of dual-class firms in the United States, *Review of Financial Studies* 23, 1051–1088.

Guiso, L., P. Sapienza, and L. Zingales, 2013, The value of corporate governance, NBER Working Paper.

Hellmann, T., 2007, When do employees become entrepreneurs?, *Management Science* 53, 919-933.

Hofstede, G., 1980. Culture's consequences−international differences in work-related values (Sage, London).

Holtz-Eakin, D., W. Newey, and H.S. Rosen, 1988, Estimating vector auto-regressions with panel data, *Econometrica* 56, 1371-1395.

Jensen, M. C., and W.H. Meckling, 1976, Theory of the firm: Managerial behavior, agency costs and ownership structure, *Journal of financial economics* 3, 305-360.

Karolyi, G. A. 2015, The gravity of culture for finance, Cornell University Working Paper.

Kaufmann, D., A. Kraay, and M. Mastruzzi, 2009, Governance matters VIII: aggregate and individual governance indicators, 1996-2008, *World Bank policy research working paper*, (4978).

Kim, E.H., and P. Ouimet, 2014, Broad-based employee stock ownership: Motives and outcomes, *Journal of Finance* 69, 1273-1319.

Kreps, David M., 1990, Corporate culture and economic theory, in James E. Alt, and Kenneth A. Shepsle, eds.: *Perspectives on Positive Political Economy* (Cambridge University Press, Cambridge, England).

Landier, A., V. Nair, and J. Wulf, 2009, Trade-offs in staying close: corporate decision making and geographic dispersion, *Review of Financial Studies* 22, 1119-1148.

Lazear, Edward P., 1995, Corporate culture and the diffusion of values, in Horst Siebert, ed.: *Trends in Business Organization: Do Participation and Cooperation Increase Competitiveness?* (Institut für Weltwirtschaft an der Universität Kiel, J.C.B. Mohr / Paul Siebeck, Tübingen, Germany).

Li, Kai, D. Griffin, H. Yue, and L. Zhao, 2013, How does culture influence corporate risk taking, *Journal of Corporate Finance* 23, 1-22.

Loderer, C., R. Stulz, and U. Waelchli, 2014, Limited managerial attention, innovation, and corporate aging, NBER Working Paper.

Popadak, J., 2015, Social forces in corporate finance, *University of Pennsylvania Working Paper*.

Rajan, R., and L. Zingales, 1998, Power in a theory of the firm, *Quarterly Journal of Economics* 113, 387–432.

Sheridan, J. E., 1992, Organizational culture and employee retention, *Academy of Management Journal* 35, 1036-1056.

Tellis, G. J., J.C. Prabhu, and R.K. Chandy, 2009, Radical innovation across nations: The preeminence of corporate culture, *Journal of Marketing* 73, 3-23.

Wintoki, M.B., J.S. Linck, and J.M. Netter, 2012, Endogeneity and the dynamics of internal corporate governance, *Journal of Financial Economics* 105, 581-606.

Yermack, David, 2006, Flights of fancy: Corporate jets, CEO perquisites, and inferior shareholder returns, *Journal of Financial Economics* 80, 211-242.

Zingales, L., 2000, In search of new foundations, *Journal of Finance* 55, 1623-1653.

Table I: Sample Distribution across Countries

The table reports the number of firms, total number of observations, and the first year of available data for firms in the country. Our sample includes all firms covered by ASSET4 ESG database. We exclude financial firms and utilities (SIC codes between 6000 and 6999 and between 4900 and 4949) and firms with missing data on total assets, as well as those with negative sales or negative book value of equity. We require countries to have three years of data on at least three firms. Our sample consists of 3,034 firms (14,335 firm-year observations) from 44 countries from 2003 through 2013.

Country	First Year	# of firms	# of Observations
Australia	2003	227	631
Austria	2003	13	83
Belgium	2003	17	121
Brazil	2003	50	94
Canada	2003	211	859
Chile	2008	11	25
China	2005	61	110
Colombia	2009	4	6
Denmark	2003	19	141
Egypt	2009	7	9
Finland	2003	23	159
France	2003	78	509
Germany	2003	69	428
Greece	2003	15	91
Hong Kong	2003	103	335
Hungary	2009	3	6
India	2008	46	87
Indonesia	2009	19	30
Ireland	2003	12	71
Israel	2003	10	27
Italy	2003	26	175
Japan	2003	341	2133
Luxembourg	2005	4	25
Malaysia	2009	27	42
Mexico	2003	19	54
Netherlands	2003	33	202
New Zealand	2005	8	46
Norway	2003	22	157
Philippines	2009	4	7
Poland	2009	10	17
Portugal	2003	8	54
Russian Federation	2007	25	70
Saudi Arabia	2008	4	13
Singapore	2005	39	197
South Africa	2009	34	54
South Korea	2003	77	149
Spain	2003	27	183
Sweden	2003	41	294
Switzerland	2003	50	329
Taiwan	2003	105	152
Thailand	2008	12	25
Turkey	2009	15	30
United Kingdom	2003	278	1612
United States	2003	827	4493
TOTAL		3,034	14,335

Table II: Descriptive Statistics

The table shows descriptive statistics for our main variables. Our sample consists of 3,034 firms (14,335 firm-year observations) from 44 countries from 2003 through 2013. For country-level variables, we compute the time-series average by country, and report the cross-sectional average. Variable definitions are found in Appendix A.

Descriptive Statistics						
	N	Mean	25th. pctl.	Median	75t pctl.	Std. dev.
Firm-level variables:						
Culture -PCA	14,335	0.05	-1.44	-0.07	1.50	1.71
Culture -average (%)	14,335	49.63	29.18	48.05	69.44	23.49
Employment quality (%)	14,335	48.97	20.09	48.02	78.04	30.23
Health and safety (%)	14,335	51.35	25.57	46.65	80.02	30.13
Training and development (%)	14,335	52.89	18.96	58.53	83.00	31.31
Diversity (%)	14,335	48.23	19.87	40.72	78.38	30.59
Human rights (%)	14,335	48.99	23.57	28.23	79.30	29.98
Tobin's *q*	14,335	1.81	1.10	1.44	2.06	1.18
Size – log(assets) $000	14,335	15.41	14.52	15.32	16.29	1.37
ROA	14,335	0.06	0.02	0.05	0.09	0.08
ROE	14,335	0.13	0.06	0.13	0.21	0.25
Sales-to-assets t-1	14,335	1.04	0.58	0.90	1.30	0.70
COGS-to-employees	13,421	349.87	105.26	181.96	334.26	575.96
R&D expenses-to-sales	14,335	0.03	0.00	0.00	0.03	0.06
Capex	14,335	0.07	0.02	0.05	0.08	0.11
Age	14,335	3.11	2.48	3.18	3.64	0.90
Leverage	14,335	0.23	0.11	0.22	0.33	0.16
Cash	14,335	0.08	0.01	0.05	0.11	0.09
PPE	14,335	2.21	0.14	0.28	0.58	91.06
Foreign sales	14,335	0.38	0.03	0.35	0.64	0.34
Closely-Held	14,335	24.10	2.38	17.83	39.20	22.80
ADR	14,335	0.23	0.00	0.00	0.00	0.42
GOVINDEX	14,335	56.31	47.06	57.14	65.22	13.19
Country-level variables:						
Log GDP per capita	44	9.89	9.24	10.24	10.66	1.01
GDP growth	44	0.09	0.07	0.08	0.11	0.05
Governance index	44	0.81	0.05	1.00	1.54	0.82

Table III: Correlations

The table shows correlation among variables used in our analysis. * indicates that the correlation is significant at least at the 10% level. See Appendix A for variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
(1)	1																			
(2)	-0.07*	1																		
(3)	0.46*	-0.34*	1																	
(4)	0.04*	0.44*	-0.09*	1																
(5)	0.08*	0.31*	-0.02*	0.79*	1															
(6)	0.03*	0.14*	-0.11*	0.20*	0.20*	1														
(7)	-0.00	-0.11*	0.13*	-0.02*	-0.01*	0.26*	1													
(8)	0.01*	0.21*	-0.06*	-0.08*	-0.12*	-0.16*	-0.15*	1												
(9)	-0.06*	0.05*	-0.09*	0.00	-0.02*	-0.08*	0.05*	-0.11*	1											
(10)	0.15*	-0.09*	0.19*	-0.00	0.00	0.03*	-0.03*	0.01*	-0.11*	1										
(11)	0.04*	-0.23*	0.23*	-0.19*	0.00	-0.19*	0.02*	-0.17*	0.02*	-0.01*	1									
(12)	-0.10*	0.25*	-0.22*	0.07*	0.01	0.02*	-0.04*	0.23*	-0.04*	-0.09*	-0.27*	1								
(13)	-0.02*	0.00	-0.02*	-0.02*	-0.02*	-0.02*	-0.00	-0.00	0.08*	-0.02*	0.00	-0.00	1							
(14)	0.25*	0.01*	0.08*	0.04*	0.02*	-0.08*	-0.10*	0.15*	-0.04*	0.03*	-0.04*	0.09*	-0.01*	1						
(15)	-0.08*	0.00	-0.05*	0.01	-0.01*	-0.02*	0.02*	-0.09*	0.04*	-0.22*	0.01	0.05*	0.01*	-0.07*	1					
(16)	0.25*	-0.11*	0.20*	-0.05*	-0.03*	-0.07*	0.01*	-0.01	-0.01*	0.02*	0.05*	0.01*	-0.00	0.16*	0.11*	1				
(17)	0.06*	0.08*	-0.05*	0.03*	0.03*	-0.00	-0.04*	0.06*	-0.00	0.11*	-0.03*	-0.08*	0.01*	0.06*	-0.34*	-0.16*	1			
(18)	-0.01	-0.03*	-0.07*	-0.07*	-0.04*	0.01	-0.00	0.09*	-0.04*	0.11*	-0.02*	0.03*	0.00	0.11*	-0.29*	-0.00	0.25*	1		
(19)	-0.00	0.03*	-0.05*	0.06*	0.04*	0.00	0.01*	-0.05*	0.08*	-0.09*	-0.02*	0.00	0.01	0.01*	0.12*	0.02*	-0.02*	-0.10*	1	
(20)	0.02*	-0.00	-0.16*	-0.04*	-0.02*	0.01*	-0.02*	0.04*	-0.00	0.08*	-0.03*	0.00	0.00	0.19*	-0.22*	0.04*	0.23*	0.80*	-0.04*	1

(1) *Culture -PCA*
(2) Tobin's *q*
(3) Log (assets -$000)
(4) *ROA*
(5) *ROE*
(6) *Sales-to-assetst-1*
(7) *COGS-to-employees*
(8) *R&D expenses-to-*
(9) *Capex-to-assets*
(10) *Log Age*
(11) *Leverage*
(12) *Cash-to-assets*
(13) *PP&E-to-sales*
(14) *Foreign sales-to-sales*
(15) *Closely-Held %*
(16) *ADR*
(17) *GOVINDEX*
(18) *Log GDP per capita*
(19) *GDP growth*
(20) *Governance index*

Table IV: The Relationship between Employee-Friendly Firm Culture and Firm Value

Panel A presents regression results of the impact of an employee-friendly culture on *Tobin's q*. Panel B reports results of the Arellano and Bond (1991) dynamic panel GMM estimator including three lags of Tobin's *q* and all control variables used in Panel A. In Panel C, we report results from 2SLS regressions in which we instrument *Culture-PCA* with two instruments: 1) *Capital*- an indicator variable that is equal to one for firms whose headquarters are located in their home country's capital and zero otherwise, and 2) *Foreign operations* – an indicator variable that is equal to one if the firm had foreign operations as of the prior year-end and zero otherwise. The control variables (not shown in Panels B and C to conserve space) include: 1) *Size*; 2) *Age*; 3) *Leverage*; 4) *Cash*; 5) *PPE*; 6) *Foreign sales*; 7) *R&D*; 8) *Capex*; 9) *Closely-held*; 10) *ADR*; 11) *GOVINDEX;* 12) the log of GDP per capita; 13) GDP growth, and 14) country-level governance index from Kauffman et al. (2009). *t*-statistics, in parentheses, are based on standard errors clustered at the country level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 two-tailed levels, respectively. See Appendix A for variable definitions.

Panel A- Impact of culture on firm value					
	Dependent variable: Tobin's *q*				
	(1)	(2)	(3)	(4)	(5)
Culture-PCA t-1	0.0895***	0.0830***			
	(4.77)	(5.56)			
Culture-average t-1			0.0065***		
			(4.78)		
High Culture-PCA t-1				0.2738***	
				(5.39)	
High Culture-average t-1					0.2668***
					(5.28)
BC t-1		0.8201***			
		(19.87)			
Size t-1	-0.2804***	-0.2853***	-0.2804***	-0.2634***	-0.2626***
	(-10.66)	(-10.18)	(-10.68)	(-11.50)	(-11.54)
Age	-0.0462***	-0.0451***	-0.0462***	-0.0426***	-0.0422***
	(-3.89)	(-3.72)	(-3.89)	(-3.42)	(-3.38)
Leverage t-1	-0.6049***	-0.5658***	-0.6048***	-0.6270***	-0.6285***
	(-3.00)	(-3.04)	(-3.00)	(-2.94)	(-2.94)
Cash t-1	2.1175***	2.0936***	2.1171***	2.1056***	2.1027***
	(7.94)	(8.16)	(7.94)	(7.60)	(7.57)
PPE t-1	-0.0000	-0.0000	-0.0000	-0.0001	-0.0001
	(-1.06)	(-1.04)	(-1.06)	(-1.12)	(-1.12)
Foreign sales	0.0646	0.0668	0.0648	0.0718	0.0728
	(1.12)	(1.12)	(1.12)	(1.22)	(1.23)
R&D	0.0055***	0.0056***	0.0055***	0.0056***	0.0056***
	(6.61)	(6.91)	(6.60)	(6.85)	(6.84)
Capex t-1	0.5385**	0.5215**	0.5381**	0.5378**	0.5374**
	(2.14)	(2.18)	(2.14)	(2.12)	(2.12)
Closely-held	0.0011	0.0011	0.0011	0.0011	0.0011
	(1.07)	(1.08)	(1.08)	(0.98)	(0.97)
ADR	0.1250***	0.1308***	0.1249***	0.1412***	0.1417***
	(3.41)	(3.41)	(3.40)	(3.62)	(3.63)
Governance index	-0.0004	-0.0003	-0.0004	-0.0000	0.0000
	(-0.24)	(-0.18)	(-0.24)	(-0.02)	(0.00)
Log GDP per Capita	0.1027	0.0935	0.1024	0.0246	0.0253
	(0.38)	(0.34)	(0.37)	(0.09)	(0.09)
GDP Growth	-0.1456	-0.1240	-0.1456	-0.1165	-0.1169
	(-0.76)	(-0.67)	(-0.76)	(-0.64)	(-0.64)
Governance index	-0.0426	-0.0529	-0.0425	-0.0961	-0.0945
	(-0.12)	(-0.15)	(-0.12)	(-0.26)	(-0.25)
Industry *q*	0.8110***	0.7859***	0.8110***	0.7988***	0.7998***
	(9.26)	(9.75)	(9.25)	(9.11)	(9.15)
Country, industry, and year fixed	Yes	Yes	Yes	Yes	Yes
Observations	14,335	14,335	14,335	14,335	14,335
Adjusted R^2	0.371	0.378	0.371	0.369	0.369
# of countries	44	44	44	44	44

Table IV Continued

Panel B - Dynamic Panel GMM Estimation		
Dependent variable:	Tobin's *q*	
	(1)	(2)
Tobin's q_{t-1}	-0.1303	-0.1300
	(-0.65)	(-0.65)
Tobin's q_{t-2}	0.1632	0.1668
	(0.57)	(0.59)
Tobin's q_{t-3}	0.2204*	0.2185*
	(1.87)	(1.85)
Culture –PCA t-1	0.2092**	
	(2.12)	
Culture- average t-1		0.0151**
		(2.13)
Controls	Yes	Yes
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	4,962	4,962
Hansen *J*-statistic	18.01	18.28
p-value	0.206	0.194
AR(1) test *p*-value	0.819	0.808
AR(2)-test *p*-value	0.426	0.420
Panel C – 2SLS Regressions		
	First-Stage	Second-Stage
Dependent variable:	*Culture-PCA*	Tobin's *q*
	(1)	(2)
Capital	-0.142***	
	(-3.71)	
Foreign operations	0.223***	
	(8.75)	
Culture-PCA t-1		0.158**
		(2.01)
Controls	Yes	Yes
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	14,335	14,335
Adjusted R^2	0.460	0.365
1st stage F-statistic (*p*-value)		0.000
Hansen *J*-statistic		1.285
χ^2 *p*-value		0.257

Table V - Employee-Friendly Firm Culture and Firm Performance

Table presents regression results of the impact of an employee-friendly culture on firm profitability. We employ two measures of profitability- 1) *ROA* – net income scaled by assets as of prior year-end, and 2) *ROE*- net income scaled by equity as of prior year-end. *Culture-PCA* is the first principal component of the percentage score on five areas: 1) employee quality; 2) health and safety; 3) training and development; 4) diversity, and 5) human rights. Best company is an indicator variable that equals one if the firm was listed in the list of "Best Companies to Work For." Control variables, measured as of the prior year-end include: 1) *Size*; 2) *Age*; 3) *Leverage*; 4) *Cash*; 5) *PPE*; 6) *Foreign sales*; 7) *R&D*; 8) *Capex*; 9) *Closely-held*; 10) *ADR*; 11) *GOVINDEX;* 12) the log of GDP per capita; 13) GDP growth, and 14) country-level governance index from Kauffman et al. (2009). *t*-statistics, in parentheses, are based on standard errors clustered at the country level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 two-tailed levels, respectively. See Appendix A for variable definitions.

Panel A- Impact of culture on financial performance				
Dependent variable:	*ROA*	*ROE*	*ROA*	*ROE*
	(1)	(2)	(3)	(4)
Culture-PCA t-1	0.0049***	0.0168***	0.0046***	0.0164***
	(2.89)	(3.10)	(3.00)	(3.16)
BC t-1			0.0328***	0.0517***
			(14.62)	(8.54)
Size t-1	-0.0053***	-0.0143***	-0.0055***	-0.0146***
	(-2.71)	(-2.84)	(-2.70)	(-2.85)
Age	0.0020	0.0066**	0.0020	0.0067**
	(1.61)	(2.27)	(1.64)	(2.29)
Leverage t-1	-0.0852***	0.0455	-0.0836***	0.0482
	(-10.29)	(1.15)	(-10.69)	(1.20)
Cash t-1	0.0341**	0.0870**	0.0329**	0.0851*
	(2.20)	(2.05)	(2.12)	(1.99)
PPE t-1	-0.0000	-0.0000	-0.0000	-0.0000
	(-1.53)	(-1.54)	(-1.53)	(-1.54)
Foreign sales	0.0111*	0.0113	0.0112*	0.0115
	(1.89)	(0.61)	(1.86)	(0.61)
R&D	-0.0012***	-0.0027***	-0.0012***	-0.0027***
	(-36.22)	(-33.62)	(-36.28)	(-33.56)
Capex t-1	0.0071	-0.0151	0.0064	-0.0163
	(0.43)	(-0.53)	(0.39)	(-0.58)
Closely-held	0.0000	-0.0002	0.0000	-0.0002
	(0.21)	(-0.53)	(0.22)	(-0.53)
ADR	-0.0004	-0.0005	-0.0002	-0.0002
	(-0.24)	(-0.10)	(-0.11)	(-0.04)
Governance index	-0.0001*	-0.0004	-0.0001	-0.0004
	(-1.69)	(-1.25)	(-1.66)	(-1.23)
Log GDP per Capita	-0.0334*	-0.0252	-0.0337*	-0.0258
	(-1.72)	(-0.66)	(-1.72)	(-0.68)
GDP Growth	0.0062	0.0018	0.0070	0.0030
	(0.61)	(0.06)	(0.70)	(0.10)
Governance index	-0.0292	0.0092	-0.0296	0.0086
	(-1.03)	(0.14)	(-1.05)	(0.13)
Industry *ROA*	0.9061***		0.9105***	
	(6.79)		(6.66)	
Industry *ROE*		1.1323***		1.1353***
		(5.29)		(5.27)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	14,335	14,335	14,335	14,335
Adjusted R^2	0.166	0.107	0.169	0.107

Table VI - Employee-Friendly Firm Culture, Technical Efficiency and Investment

Table shows results from OLS regressions of the impact of an employee-friendly culture on firm technical efficiency and its investment activity. We employ two measures of technical efficiency: 1) Sales-to-assets and 2) COGS-to-employees-cost of goods sold per employee. In Models (3) and (40 we use two measures of investment activity: 1) R&D-to-sales, and 2) capital expenditures-to-assets. *Culture-PCA* is the first principal component of the percentage score on five areas: 1) employee quality; 2) health and safety; 3) training and development; 4) diversity, and 5) human rights. Control variables, measured as of the prior year-end include: 1) *Size*; 2) *Age*; 3) *Leverage*; 4) *Capex*; 5) *R&D*; 6) *Market-to-book*; 7) *Volatility* – the standard deviation of weekly stock returns; 8) *ROA* – net income-to-assets; 9) the log of GDP per capita; 10) GDP growth, and 11) country-level governance index from Kauffman et al. (2009). Country, industry, and year fixed effects are included in all regressions. *t*-statistics, in parentheses, are based on standard errors clustered at the country level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 two-tailed levels, respectively. See Appendix A for variable definitions.

Firm Culture, Technical Efficiency and Investment Activity				
Dependent variable:	Sales-to-assets	COGS-to-employees	R&D-to-sales	Capex-to-assets
	(1)	(2)	(3)	(4)
Culture-PCA t-1	0.0588***	-25.0939***	0.0014***	0.0023***
	(10.50)	(-3.59)	(4.49)	(3.80)
Age	-0.0028	-26.0619*	-0.0024**	-0.0032***
	(-0.28)	(-1.78)	(-2.60)	(-2.83)
Capex t-1	-0.1046*	-166.4285**	-0.0252***	
	(-1.91)	(-2.10)	(-3.14)	
R&D	-0.0020***	-0.2996**		0.0002***
	(-7.03)	(-2.05)		(6.98)
Leverage t-1	-0.5329***	30.8355	-0.0378***	0.0072
	(-6.51)	(0.31)	(-3.39)	(0.96)
Market-to-book t-1	0.0004	0.0651	-0.0000	0.0000
	(0.94)	(1.07)	(-0.10)	(1.22)
Size t-1	-0.1128***	49.1295***	-0.0023*	-0.0067***
	(-17.79)	(4.03)	(-1.95)	(-5.43)
Volatility	-1.2383***	982.2933**	0.1319***	0.0476
	(-2.81)	(2.07)	(3.30)	(1.54)
ROA	0.0385	149.1760	-0.0074	0.0022
	(0.63)	(1.48)	(-0.96)	(0.45)
Log GDP per Capita	-0.2720***	189.5540*	0.0104	-0.0205**
	(-4.18)	(1.76)	(1.37)	(-2.26)
GDP Growth	0.3663**	92.6324	0.0008	0.0378**
	(2.16)	(0.79)	(0.17)	(2.16)
Governance index	-0.0695	-60.5502	-0.0042	0.0217
	(-0.31)	(-0.40)	(-0.66)	(0.96)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	14,334	13,420	14,334	14,321
Adjusted R^2	0.408	0.421	0.306	0.358

Table VII: Impact of Labor Market Flexibility

Table shows results from OLS regressions of Tobin's *q*. In Panel A, we measure a country's labor market flexibility using two proxies: 1) *EFW*: Economic Freedom of the World Index form the Fraser Institute, and 2) *EconFree*- Index of Economic Freedom from the Heritage Foundation and Wall Street Journal. We use the annual cross-country median to group countries into high/low labor market flexibility. In Panel B, we use two measures of culture from Hofstede (1890): 1) *Power distance* and 2) *Individualism*. Countries with measures above the median are classified as *High Power distance* (*High Individualism*). The control variables (not shown to conserve space) include: 1) *Size*; 2) *Age*; 3) *Leverage*; 4) *Cash*; 5) *PPE*; 6) *Foreign sales*; 7) *R&D*; 8) *Capex*; 9) *Closely-held*; 10) *ADR*; 11) *GOVINDEX;* 12) the log of GDP per capita; 13) *GDP growth*, and 14) country-level governance index from Kauffman et al. (2009). *t*-statistics, in parentheses, are based on standard errors clustered at the country level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 two-tailed levels, respectively. See Appendix A for variable definitions.

Panel A- Labor Market Flexibility				
Dependent variable:	Tobin's *q*			
	(1)	(2)	(3)	(4)
Culture-PCA t-1 x *EFW*	0.0125**			
	(2.24)			
EFW	0.1223**			
	(2.25)			
Culture-PCA t-1 x High EFW		0.0331**		
		(2.44)		
High EFW		0.0285		
		(0.26)		
Culture-PCA t-1 x EconFree			0.0024*	
			(1.87)	
EconFree			-0.0462***	
			(-4.95)	
Culture-PCA t-1 x High EconFree				0.0301*
				(1.77)
High EconFree				-0.0483
				(-1.20)
Culture-PCA t-1	-0.0081	0.0760***	-0.0889	0.0768***
	(-0.19)	(6.03)	(-0.95)	(6.37)
Controls	Yes	Yes	Yes	Yes
Country, industry, and year fixed effects	Yes	Yes	Yes	Yes
Observations	14,330	14,330	14,335	14,335
Adjusted R^2	0.372	0.371	0.373	0.371
# of countries	44	44	44	44
Panel B – Country Culture				
Dependent variable:	Tobin's *q*			
	(1)	(2)	(3)	(4)
Culture-PCA t-1 x Power distance	-0.0014**			
	(-2.34)			
Power distance	0.0447			
	(0.84)			
Culture-PCA t-1 x High Power distance		-0.0495***		
		(-3.39)		
High Power distance		0.6443		
		(0.92)		
Culture-PCA t-1 x Individualism			0.0010***	
			(4.55)	
Individualism			-0.0246	
			(-0.87)	
Culture-PCA t-1 x High individualism				0.0436***
				(3.81)
High individualism				-0.6546
				(-0.93)
Culture-PCA t-1	0.1524***	0.1093***	0.0187	0.0707***
	(4.44)	(7.30)	(1.04)	(5.85)
Controls	Yes	Yes	Yes	Yes
Country, industry, and year fixed effects	Yes	Yes	Yes	Yes
Observations	14,335	14,335	14,335	14,335
Adjusted R^2	0.371	0.372	0.372	0.372
# of countries	44	44	44	44

Table VIII: Robustness Tests

Table shows results from OLS regressions. The dependent variable is Tobin's *q*, unless otherwise indicated. *Culture-PCA* is the first principal component of the percentage score on five areas: 1) employee quality; 2) health and safety; 3) training and development; 4) diversity, and 5) human rights. In Model (1) we show results using firm and year fixed effects. In Model (2) we show results for regressions excluding firms in the US. In Model (3) we use an alternate measure of firm value, market-to-book value of equity. In Model (4) we include interactions with a *Crisis* indicator that is equal to one for years 2008-2009 and zero otherwise. The control variables (not shown to conserve space) include: 1) *Size*; 2) *Age*; 3) *Leverage*; 4) *Cash*; 5) *PPE;* 6) *Foreign sales*; 7) *R&D*; 8) *Capex*; 9) *Closely-held*; 10) *ADR*; 11) *GOVINDEX*; 12) the log of GDP per capita; 13) GDP growth, and 14) country-level governance index from Kauffman et al. (2009). *t*-statistics, in parentheses, are based on standard errors clustered at the country level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 two-tailed levels, respectively. See Appendix A for variable definitions.

Robustness tests				
		No US	Market-to-book	
	(1)	(2)	(3)	(4)
Culture-PCA t-1	0.0200*	0.0667***	0.2622***	0.0796***
	(1.88)	(5.44)	(4.66)	(4.26)
Culture-PCA t-1 x Crisis				0.0386***
				(4.12)
Crisis				-0.3461*
				(-2.00)
Controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	No	No	No
Country fixed effects	No	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	No	Yes	Yes	Yes
Observations	14,335	9,842	14,335	14,335
Adjusted R^2	0.754	0.387	0.246	0.371
# of countries	44	43	44	44