Investor Horizons and Employee Satisfaction

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Abstract

What determines a firm's ability to provide a satisfying workplace to its employees? This paper studies the effect of the investment horizon of a firm's investors on employee satisfaction. Since employee satisfaction is an intangible that is not immediately valued by the market but generates firm value over the long-run, we argue that firms with more long-term investors should be in a better position to foster employee satisfaction. Consistent with our argument, we find that long-term ownership is strongly associated with employee satisfaction. The effect of long-term investors on employee satisfaction appears to be causal and not driven by self-selection.

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1. Introduction

Employee satisfaction is a critical management issue that has received increased attention from practitioners, academics, and consultants over the past years. Two main factors contribute to the emphasis placed on the well-being of employees. First, employee treatment is an important dimension of Corporate Social Responsibility (CSR), which is becoming more and more prevalent in many firms' business[3]. Second, the role of employee satisfaction is deemed to be crucial because, in the modern firm, employees represent key organizational assets and the ability to retain and motivate them is a source of competitive advantage[4].

Existing empirical evidence clearly indicates that employee satisfaction generates substantial firm value (e.g., Edmans, 2011; Edmans, 2012; Faleye and Trahan, 2011). Further evidence shows that employee satisfaction also increases labor productivity and fosters innovation (e.g., Flammer, 2015; Flammer and Kacperczyk, 2015). Guiso, et al. (2015) show that a corporate culture based on integrity and trust in management is an important dimension of employee satisfaction and is positively related to firm performance. Employee satisfaction is therefore an important driver of firm value creation, but what determines a firm's ability to provide a satisfying workplace to its employees? Since employee satisfaction enhances both financial and social performance, all firms should have a potential interest in promoting employee satisfaction. However, in practice, anecdotal evidence suggests that not all firms

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[3] As Hong, et al. (2012) and Di Giuli and Kostovetsky (2014) discuss, a lot of anecdotal evidence indicates that large U.S. corporations invest hundreds of millions of dollars annually in CSR initiatives.

[4] Human relation theories suggest that a satisfying workplace constitutes a valuable tool for the recruitment and retention of key employees (e.g., Allen, et al., 2010; Becker and Gerhart, 1996; Huselid, 1995; Likert, 1961; McGregor, 1960; Pfeffer, 1994).

manage to offer satisfying workplace to their employees[5]. In this paper, we investigate the effect of investor horizons on employee satisfaction.

In an efficient market, a tangible asset that is beneficial to firm value will be rapidly capitalized. In this case, the horizon of a firm's investors does not matter for its investment decisions because short-term and long-term investors equally benefit from the firm's investment in tangible assets. However, employee satisfaction is an intangible, i.e., an asset that is not physical in nature. One important feature of intangibles is that it is hard for managers to credibly certify their value to outsiders who cannot directly observe them. Existing evidence shows that the market fails to fully incorporate intangibles (e.g., Aboody and Lev, 1998; Aksoy, et al., 2008; Chan, et al., 2001; Deng, et al., 1999; Lev and Sougiannis, 1996). In the case of intangible assets, the horizon of a firm's investors potentially matters. The mispricing of intangibles implies that short-term and long-term investors do not equally benefit from the firm's investment in intangible assets. While long-term investors are able to wait until the value of the intangible is fully incorporated into the stock price, short-term investors might have to sell their shares when the value of the intangible is still mispriced.

Edmans (2011) shows that, as for other intangibles, employee satisfaction is not immediately valued by the market, and affects the stock price when it subsequently manifests in tangible outcomes (e.g., higher earnings surprises). He estimates that the market takes a long time (i.e., up to five years) to fully incorporate the value of employee satisfaction. Because of the difficulty of the market to fully incorporate the value of employee satisfaction, firms with more long-term investors should be in a better position to foster employee satisfaction. If managers maximize the wealth of the firm's average investor (e.g., Miller and

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[5] Anecdotal evidence indicates that, for many employees, their working environment is a source of anxiety, stress, and even depression. For example, a recent report (2015) from Rotman School of Management shows that 41% of employees from a range of industries reported high levels of anxiety.

Rock, 1985; Stein, 1996), the longer is the horizon of the firm's average investor, the more managers should be inclined to invest in intangibles that will only create value over the long run. We therefore expect the presence of long-term investors to have a positive impact on employee satisfaction. This prediction is consistent with ample existing evidence that the presence of long-term investors reduces the pressure of managers to maximize short-term stock price and leads them to maximize the long-term fundamental value of the firm[6].

To test our prediction, we regress a measure of employee satisfaction on the fraction of a firm's shares held by long-term investors. We measure employee satisfaction using the list of the "Best Companies to Work for in America". As discussed by Edmans (2011) and Edmans (2012), the Best Companies list is a thorough measure of overall satisfaction that involves surveying several dimensions and represents the most respected and prominent measure available. To measure long-term investor ownership, we follow recent literature in corporate finance, and use portfolio turnover as a proxy for investor horizon (e.g., Derrien, et al., 2013; Gaspar, et al., 2005).

Our results show that there is a strong association between the presence of long-term investors and employee satisfaction. This association is very robust to the introduction of numerous control variables that may affect employee satisfaction, such as size, institutional ownership, market-to-book, leverage, the number of employees scaled by total assets, and profitability. The results are similar when we use alternative measures of investor horizon such as the classification from Bushee (1998) or the stock duration measure from Cremers and Pareek (2015). The Best Companies list measures the actual satisfaction of employees

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[6] For example, long-term investors reduce market reactions to short-term performance news (e.g., Hotchkiss and Strickland, 2003; Ke and Petroni, 2004; Ke and Ramalingegowda, 2005), monitor managerial behaviors and decisions destroying long-term value (e.g., Bushee, 1998; Cella, 2009; Chen, et al., 2007; Gaspar, et al., 2005; Harford, et al., 2014), and induce managers to focus on fundamental value in their corporate policies (e.g., Derrien, et al., 2013; Polk and Sapienza, 2009).

rather than the existence of employee-friendly initiatives. Using KLD ratings, we show that firms with more long-term investors have higher levels of good employee treatment.

Firms apply to be considered for the Best Companies list. Unfortunately, we do not have access to the full set of firms that are considered for the Best Companies list every year. However, we perform a large number of sample restrictions to alleviate the concern that selection issues may affect our results. Our results are unchanged if we impose different thresholds on the number of employees. The results are also robust to a restriction of the sample to S&P500 firms, S&P1500 firms or to the largest firms (top quartile). Finally, the results hold if we focus only on firms that appear at least once in the Best Companies list over the sample period.

One potential issue with our empirical analysis is that the measures of investor horizons may capture other shareholders' characteristics. A first possibility is that firms with greater long-term investor ownership also have more concentrated ownership. Existing literature indicates that concentrated investors may influence managers and have an impact on corporate decisions (e.g., Cronqvist and Fahlenbrach, 2009; Holderness, 2003). When we control for blockholder ownership or other measures of ownership concentration, we find that our results are unchanged, which indicates that the effect of investor horizons on employee satisfaction is not driven by investor concentration. A second possibility is that long-term investors are more likely to be socially responsible investors. According to Bénabou and Tirole (2010)'s *delegated philanthropy* vision of CSR, firms engage in CSR initiatives to cater to the demand of some investors (e.g., socially responsible investors). We address this concern by constructing a proxy for socially responsible investor ownership. To classify investors as socially responsible investors, we analyze whether they invest or not in "sin" stocks (alcohol, tobacco, and gaming). An investor that applies screens on "sin" stocks is more likely to be socially responsible than an investor that is willing to invest in those stocks.

When we control for socially responsible investor ownership, long-term investor ownership is still strongly associated with employee satisfaction.

More generally, one alternative interpretation for our results is that the positive association between long-term investor ownership and employee satisfaction is driven by selection, i.e., long-term investors select firms with more satisfied employees. In order to mitigate this potential endogeneity issue and show that the effect of long-term investors on employee satisfaction is causal, we conduct three additional empirical tests. First, if our results are driven by selection, one would expect long-term investor ownership to increase following the inclusion of a firm in the Best Companies list. Using a matching-firm approach, we do not find any evidence that this is the case. Second, following Derrien, et al. (2013), we exploit the insight that indexers are long-term investors that cannot choose the firms in which they invest. We split long-term investors into non-indexers and indexers, and we find that our results are similar for both subgroups of long-term investors. Third, we consider two instrumental variable analyses. In our first instrumental variable approach, we use as instrument the yearly industry average of long-term investor ownership, excluding the firm itself. This approach has been used in previous studies analyzing the effect of ownership structure such as blockholder ownership on different firm specific characteristics (e.g., Faccio, et al., 2011; John, et al., 2008). In our second instrumental variable approach, we exploit the fact that some investors trade more not because of valuation beliefs but to prevent withdrawals. Following Cella, et al. (2013), we compute measures of trading performance sensitivity to capture exogenous variation in an investor's horizon. As they explain, the rationale is that investors with lower correlation between funding and previous performance expect to have more stable funding and should have the possibility of taking a longer horizon on their investment. The results of these two instrumental variable tests confirm that long-term investor ownership has a strong and positive impact on employee satisfaction. Taken

together, these findings support a causal effect of long-term ownership on employee satisfaction and are inconsistent with self-selection.

Our paper contributes to the growing literature on investor horizon and its impact on corporate policies. In line with the theoretical framework from Froot, Perold, and Stein (1992) and Stein (1996), several empirical studies document that the presence of short-term investors influences managers to pursue corporate policies that destroy firm value. Bushee (1998) shows that firms with greater short-term investor ownership behave more myopically and cut R&D expenditures to increase short-term performance. Similarly, Gaspar, et al. (2005) and Chen, et al. (2007) show that, in the context of takeovers, firms with more short-term investors fare worse. Gaspar, et al. (2012) further show that investor horizons influence payout policy choices. Our paper provides new evidence on the impact of investor horizons on corporate policies and, in turn, on value creation. Our results suggest that the presence of long-term investors plays a role in inducing firms to invest in intangibles such as employee satisfaction that will create value over the long run. Moreover, some previous studies show that investor horizons matter mostly for corporate decisions when the firm is mispriced by the stock market (e.g., Derrien, et al., 2013; Polk and Sapienza, 2009). Our paper complements these findings by showing that investor horizons matter for firm decisions to invest in intangibles that are generally mispriced by the stock market.

Our paper also contributes to the literature on the determinants of CSR. While there is a growing literature on the links between CSR and different firm characteristics such as debt or financial constraints, the impact of investor horizons on CSR in general and on employee satisfaction in particular has received less attention. Some papers have looked at the links between CSR and financial constraints (e.g., Cheng, et al., 2014; Hong, et al., 2012), financial leverage (e.g., Bae, et al., 2011; Barnea and Rubin, 2010), managers' political affiliations (e.g., Di Giuli and Kostovetsky, 2014), and board characteristics (e.g., Bear, et al., 2010;

Harjoto, et al., 2014; Post, et al., 2011). Unlike these papers, we focus on a firm's actual success in providing satisfying jobs rather than on the existence of initiatives favoring employee treatment or other CSR initiatives.

Our paper also provides a test of an important prediction from Bénabou and Tirole (2010)'s win-win vision of CSR. In this vision, CSR is about taking a long-term perspective to maximizing intertemporal profits and an investor seeking to promote socially responsible behavior should position himself as a long-term investor. Employee satisfaction clearly corresponds to a win-win form of CSR and our results confirm that, in this case, long-term investors play a role in the promotion of CSR. However, the role of long-term investors in promoting other dimensions of CSR is not straightforward and deserves future research. CSR is a multidimensional construct (Carroll, 1979), whose components have not the same relationship with financial performance (Hillman and Keim, 2001). Employee satisfaction is a specific component of corporate social responsibility that has an especially strong link, both theoretically and empirically, to firm value. For other dimensions of CSR or for CSR taken as a whole, there is no consensus on the links with value creation (e.g., Margolis, et al., 2007). Long-term investors could therefore discipline value-destroying CSR, such as insider-initiated corporate philanthropy, that provides direct value to firm stakeholders but is financially costly (e.g., Di Giuli and Kostovetsky, 2014).

The remainder of the paper is organized as follows. The next section presents the sample and the data. Section 3 presents the main results and the robustness tests. Section 4 concludes.

2. Data and Sample

2.1 MAIN DEPENDENT VARIABLE: EMPLOYEE SATISFACTION

We measure employee satisfaction using the list of the "Best Companies to Work in America". Since 1998, this Best Companies list has been annually published in the January issue of Fortune magazine. The list was founded by Robert Levering and Milt Moskowitz and is compiled by the Great Place to Work® Institute. To construct its Best Companies list, Great Place to Work® conducts the most extensive employee survey in corporate America. Two-thirds of a company's score is based on the results of the Trust Index© Employee Survey, which is sent to approximately 250 randomly selected employees from each company. This survey asks questions related to employees' attitudes about their workplace experience. The survey spans five main categories: credibility, respect, fairness, pride, and camaraderie[7]. The other third is based on responses to the Culture Audit©, which includes detailed questions about pay and benefit programs and a series of open-ended questions about hiring practices, methods of internal communication, training, recognition programs, and diversity efforts. The Best Companies list is therefore a thorough measure of overall job satisfaction that involves surveying several dimensions (Edmans, 2011). It is arguably the most respected and prominent measure available[8].

2.2 MAIN INDEPENDENT VARIABLE: LONG-TERM INVESTOR OWNERSHIP

Our main independent variable is the fraction of the firm's shares held by long-term investors. To measure the investment horizon of a firm's investors, we follow recent literature in corporate finance, and we measure the investment horizons of investors based on their

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[7] Sample survey questions in the Great Place to Work Institute's survey of the "Best Companies to Work For in America" can be found in Edmans (2012) and Guiso, et al. (2015).

[8] Using this measure, Edmans (2011) shows that employee satisfaction contributes to firm value creation.

portfolio turnover (e.g., Cella, et al., 2013; Chen, et al., 2007; Derrien, et al., 2013; Gaspar, et al., 2005; Yan and Zhang, 2009). Although investor horizons are not directly observable, the rationale behind this approach is that an investor changing very frequently the composition of its portfolio is more likely to have a shorter investment horizon.

Based on quarterly data from Thomson's 13F filings database, we start by computing the portfolio turnover of each institutional investor as the fraction of its portfolio sold during the last twelve quarters (Derrien, et al., 2013). We then average portfolio turnover over four quarters in order to smooth the impact of extreme values. Based on this last measure, we classify institutional investors either as having short-term or long-term horizon. Following Derrien, et al. (2013), we consider that an institutional investor has a long-term horizon (short-term horizon) if its average portfolio turnover is lower (higher) than 35%. Finally, at the level of each firm, we aggregate the ownership of their long-term investors and express it as a share of total institutional investor ownership.

2.3 CONTROL VARIABLES

We include several control variables in our analysis. First, we control for total institutional ownership in order to make sure that the effect of long-term investors cannot be attributed to institutional investors as a whole. We also control for firm size, measured as the natural logarithm of total assets. Anecdotal evidence indicates that numerous large firms are present in the Best Companies list. We also control for financial leverage, defined as the ratio of total debt over total assets. Previous empirical evidence finds that leverage is negatively associated with CSR in general and with employee treatment in particular (e.g., Bae, et al., 2011; Barnea and Rubin, 2010). Moreover, greater financial constraints are negatively associated with CSR (e.g., Cheng, et al., 2014; Hong, et al., 2012). Our control variables also include the profitability and the market-to-book ratio. Well-performing firms and firms with

greater investment opportunities are potentially in a better position to provide jobs that are more satisfying. We also control for the ratio of the number of employees scaled by total assets. Ceteris paribus, a firm with a higher relative number of employees has to devote more resources to offer a satisfying workplace, we thus expect a negative relation. Finally, we control for firm and year fixed effects throughout the analysis to control for unobservable heterogeneity. We provide detailed variable definitions in the Appendix.

1.4 SAMPLE SELECTION

We obtain stock and index returns from CRSP, accounting data from S&P Compustat, and investor ownership information from Thomson's 13F filings database. We obtain data on the Best Companies list from Alex Edmans' website and merge it with CRSP and Compustat data using CRSP *permno* identifier.

The starting point for the formation of our sample comprises all companies present on CRSP and Compustat from 1998 to 2012. We exclude utilities (i.e., firms that have primary SIC codes between 4,900 and 4,999)[9]. We also exclude firms whose headquarters are not located in the United States. Companies are eligible for consideration in the Best Companies list if they have more than 500 (from 1998 to 2002) or 1,000 (since 2003) employees. Therefore, we restrict our sample to firms that have more than 500 employees for at least one year over the entire sample period[10]. In addition, companies that have been operating for less than five years are not eligible. We therefore restrict our sample to firms that have been present in Compustat for at least five years.

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[9] In our sample, financial companies represent 13% (65 firm-year observations) of the Best Companies list. We therefore do not exclude them from our main sample. All our results are absolutely unchanged if we do exclude financial firms.

[10] In section 3.3, we assess the robustness of our results to higher thresholds of the minimum number of employees.

Because Fortune publishes its list at the beginning of each year, we combine the Best Companies list in year *t* with accounting and ownership data for the fiscal year *t-1*. To be included in our final sample, we require that a firm-year have a full set of data on employee satisfaction, institutional ownership, long-term investor ownership, size, leverage, profitability, market-to-book, and the number of employees scaled by total assets. These restrictions result in a final sample of 32,641 firm-year observations (4,824 unique firms). Finally, we winsorize the independent variables at the 1 and 99% levels to mitigate the effects of outliers.

3. Results

3.1 SUMMARY STATISTICS

Table I provides descriptive statistics for the main dependent and independent variables of our sample. 2% of the firm-year observations are part of the Best Companies List. The median firm in our sample has more than 2,050 employees, total assets around $633 million, and a leverage ratio of 18%. Consistent with the growing importance of institutional investors in U.S. firms' ownership, the average level of institutional ownership in our sample is about 57%. Long-term investor ownership represents 30% of institutional ownership on average.

[*Insert Table I about here*]

3.2 MAIN RESULTS

Throughout our empirical analysis, we regress employee satisfaction, measured as whether or not a firm belongs to the Best Companies list, on long-term investor ownership

and control variables[11]. In all specifications, standard errors are robust to heteroscedasticity. In Table II, we report our baseline results. The results show a significant and positive association between long-term investor ownership and employee satisfaction. This association is robust to different estimation methods. In regression 1, we show estimates from a probit regression including industry (two-digit SIC codes) and year fixed effects. In regression 2, we run a logistic regression including year and firm fixed effects[12]. Regression 3 presents the results from a linear probability model (LPM) with firm and year fixed effects. In regression 4, we use a linear probability model with firm and year-industry fixed effects (Gormley and Matsa, 2014). When we use a linear probability model, we cluster standard errors by firm (Petersen, 2009). The inclusion of firm fixed effects in regressions 2 to 4 allows taking into consideration that some unobservable invariant characteristics at the firm level may drive the positive association between employee satisfaction and long-term investor ownership.

Economically the effect of long-term investor ownership on employee satisfaction is strong. According to regression 3, a one standard deviation increase in long-term investor ownership is associated with 0.23% increase in the probability to belong to the Best Companies list, which represents an 11.5% increase relative to a mean of 2% in our sample. The results on our control variables deserve some attention. Consistent with previous empirical evidence on the link between leverage and CSR (e.g., Bae, et al., 2011; Barnea and Rubin, 2010), we find a negative association between leverage and employee satisfaction. The positive signs on market-to-book and profitability indicate that firms that are more profitable and with more investment opportunities have more satisfied employees. Finally, results

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[11] To facilitate the interpretation of our results, we standardize all independent variables and multiply the dependent variable by 100. Accordingly, the coefficient estimate on any independent variable is the effect of a one-standard deviation increase in that independent variable on the dependent variable.

[12] Note that the number of observations significantly shrinks because the logistic regression with firm fixed effects excludes firms that never appear in the Best Companies list.

indicate that institutional ownership is not associated with employee satisfaction, which confirms that the effect of long-term investors on employee satisfaction cannot be attributed to an effect of institutional investors as a whole.

[*Insert Table II about here*]

In the rest of the paper, for the sake of place, we report results based on the linear probability model with year and firm fixed effects, but our results are unchanged if we use the alternative estimation methods.

3.3 POTENTIAL SAMPLE SELECTION ISSUES

Because Fortune magazine only publishes the list of the 100 "Best Companies", a very low percentage of the firm-year observations in our sample is part of the Best Companies list. This raises the concern that the firms that are considered and are later possibly included in the Best Companies list may be quite different from some other firms in our sample. In this regard, the median sample firm in the Best Companies list has 12,300 employees, total assets of $5.7bn, and a market capitalization of $10bn. Furthermore, 94% of the sample firms in the Best Companies list belong to the S&P1500 index and 73% to the S&P500 index. In this section, we therefore perform various sample restrictions to alleviate the concern that sample selection issues may affect our results[13].

Table III presents the results. In regressions 1 and 2, we impose more stringent restrictions in the number of employees, i.e., we only consider firms that have more than 1,000 and 5,000

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[13] Ideally, we would like to focus our analysis on the set of firms that the Great Place to Work® Institute considers for inclusion in the Best Companies list. Unfortunately, we do not have access to this information.

employees. In regressions 3 and 4, we restrict the sample to S&P 500 and S&P 1,500 firms. In regressions 5 and 6, we focus on the largest firms (top quartile) as measured by market capitalization or total assets. Finally, in regression 7, we only consider firms that are included at least once in the Best Companies list over the sample period.

[*Insert Table III about here*]

In all regressions, we find that long-term investor ownership is significantly and positively associated with employee satisfaction. This alleviates the concern that sample selection issues may drive the association between long-term investor ownership and employee satisfaction.

3.4 ALTERNATIVE MEASURES OF INVESTOR HORIZON AND EMPLOYEE SATISFACTION

In this section, we consider several alternative measures of investor horizons and a measure of employee treatment (rather than satisfaction) to assess the robustness our results. In Table IV, the use of alternative measures of investor horizons further confirms the association between long-term investors and employee satisfaction. In regression 1, we replace long-term investor ownership by the weighted average of the portfolio turnover of a firm's investors. Using this continuous measure addresses the possibility that our results may stem from a somehow arbitrary classification of institutional investors in short-term and long-term investors. In regression 2, we use the weighted average of the portfolio churn ratio of a firm's investors. The difference between portfolio turnover and churn ratio is that the latter also takes into account stock purchases in the computation of the portfolio rotation rate (e.g., Gaspar, et al., 2005; Cella, et al. 2013). In regression 3, we use another measure of long-term investor ownership based on Bushee (1998)'s classification of institutional investors. As a

proxy for long-term investor ownership, we use the fraction of a firm's shares held by dedicated investors and quasi-indexers[14]. In regression 4, we use the stock duration measure of Cremers and Pareek (2015). It measures how long the firm stock has been held on average by the firm's institutional investors. Detailed definitions of these variables are available in the Appendix.

The key advantage of the Best Companies list is that it provides an independent and thorough measure of overall job satisfaction (e.g., Edmans, 2011; Orlitzky, 2013). It therefore measures the actual satisfaction of employees rather than the existence of employee-friendly initiatives or programs. In order to complement the results of Table II, we assess whether firms with more long-term investors treat their employees more fairly. To measure how a firm treats its employees, we rely on KLD ratings. KLD uses a wide variety of data sources to rate the social performance of firms in seven major areas including employee relations. In particular, using indicator variables, KLD evaluates strengths in five categories of employee relations: union relations (whether or not the company has taken exceptional steps to treat its unionized workplace fairly), cash profit-sharing (whether or not the company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce), employee involvement (whether or not the company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees), retirement benefits (whether or not the company has a notably strong retirement benefits program) and health and safety (whether or not the company has strong health and safety programs).

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[14] Bushee (1998) identifies three groups of investors: "transient" investors trade frequently and are well-diversified, "dedicated" investors have low turnover and have more concentrated portfolio holdings, and "quasi-indexers" have low turnover and diversified portfolio holdings.

Based on the dummy variables for these five strengths in employee relations, we create a measure of employee treatment corresponding to the sum of the five dummy variables (e.g., Bae, et al., 2011). This employee treatment index ranges from zero and five, with higher values indicating better employee treatment. In the last column of Table IV, we report the results of an ordered probit regression of employee treatment on long-term investor ownership and our usual control variables. The results show a strong and positive association between long-term investor ownership and employee treatment.

Overall, the results from this section show that the effect of long-term investor ownership on employee satisfaction is robust to the choice of alternative measures of investor horizons. The results are also robust if we replace employee satisfaction by an employee treatment index measuring how fairly a firm treats its employees.

3.5 INVESTOR HORIZONS VERSUS OTHER INVESTORS' CHARACTERISTICS

The results from Tables II-IV show a strong and positive association between long-term investor ownership and employee satisfaction. However, one potential issue is that our measures of investor horizons may capture other investors' characteristics. A first possibility is that firms with greater long-term investor ownership also have more concentrated ownership. This raises the concern that our results may not be driven by the horizon of a firm's investors but rather by their concentration. Existing literature indicates that concentrated ownership may also affect corporate decisions (e.g., Cronqvist and Fahlenbrach, 2009; Edmans, 2009; Holderness, 2003).

In order to assess whether our results are really driven by investor horizon as opposed to investor concentration, we reproduce our main tests controlling for several proxies for

investor concentration. First, we add a measure of blockholder ownership. Following Holderness (2003), we classify as blockholders institutional investors that own at least 5% of a firm's shares. We also consider two alternative proxies for ownership concentration, i.e., the average ownership percentage of the firm's institutional investors and the Herfindahl-Hirschman Index of the ownership percentages of the firm's institutional investors. Results from Table V show that our different proxies for concentrated ownership are not associated with employee satisfaction. By contrast, long-term investor ownership remains strongly associated with employee satisfaction. These results indicate that the positive association between investor horizons and employee satisfaction is not driven by investor concentration.

[*Insert Table V about here*]

A second possibility is that long-term investors are also more likely to be socially responsible investors. In the *delegated philanthropy* vision of CSR of Bénabou and Tirole (2010), firms engage in CSR initiatives on the behalf of their stakeholders. In this case, firms promote socially responsible behavior to cater to the demand of some investors (e.g., socially responsible investors). This raises the concern that our results could be driven not by the investment horizon of a firm's investors but by their socially responsible nature[15].

In order to address this issue, we differentiate socially responsible investors from more conventional investors and compute a measure of socially responsible investor ownership at the firm level. We classify as socially responsible investors that do not hold any sin stocks in their portfolios (i.e., alcohol, tobacco, and gaming). An investor that applies screens on "sin"

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[15] Moreover, as explained by Bénabou and Tirole (2010), the incentives of managers to cater and engage in socially responsible behavior increase when the visibility of such behavior is high, which is the case with employee satisfaction since the Best Companies list is published in the Fortune magazine.

stocks is more likely to be socially responsible than an investor that is willing to invest in those stocks. We follow Hong and Kacperczyk (2009) to identify sin stocks. More precisely, sin stocks comprise stocks with SIC codes of 2080-2085 (i.e., tobacco), SIC codes of 2100-2199 (i.e., beer and alcohol), or those with the following NAICS codes: 7132, 71312, 713210, 71329, 713290, 72112, and 721120 (i.e., gaming)[16].

The results from Table V show that socially responsible investor ownership is not statistically associated with employee satisfaction. By contrast, long-term investor ownership remains strongly associated with employee satisfaction. Taken together, the results from this section indicate that the positive association between long-term investor ownership and employee satisfaction is neither driven by concentrated investors nor by socially responsible investors. In the next section, we address the more general concern that the effect of long-term investor ownership on employee satisfaction may be driven by selection.

3.6 INVESTOR HORIZON AND EMPLOYEE SATISFACTION: CAUSALITY VERSUS SELECTION

One alternative interpretation for our results is that the positive association between long-term investor ownership and employee satisfaction is driven by selection, i.e., long-term investors select firms with more satisfied employees. In order to mitigate this potential endogeneity issue and show that the effect of long-term investors on employee satisfaction is causal, we conduct three additional empirical tests.

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[16] We find similar results using an alternative methodology to classify investors as socially responsible investors, we measure the distance between the weights on each stock in the investor's portfolio and the weights in the MSCI KLD 400 Social Index. This methodology is similar to the Cremers and Petajisto (2009)'s active share methodology to classify investors as indexers. Because the inception date of MSCI KLD 400 Social Index is November 2006, we only report the results using our first proxy for socially responsible investors.

First, if our results are driven by selection, one would expect long-term investor ownership to increase following the inclusion of a firm in the Best Companies list. To examine whether firms entering the Best Companies list experience an increase in long-term investor ownership, we use a propensity score matching-firm approach (e.g., Lee and Wahal, 2004). We match firms on size, leverage, market-to-book, profitability, number of employees scaled by total assets, institutional ownership, long-term investor ownership, industry, and year to ensure that these firms are comparable[17]. Following Rosenbaum and Rubin (1983) and Heckman, et al. (1998), we use a probit model to calculate propensity scores. To find optimal matches, we separately use three different matching techniques: nearest neighborhood, Gaussian kernel, and local linear regression. All matchings are conducted with replacement. As suggested by Smith and Todd (2005), in order to ensure the quality of the matching, we drop 2% of observations for which the propensity score density of the matched observations is the lowest. We use bootstrapped standard errors to conduct statistical inferences based on 50 replications. As reported in Table VI, Panel A, our results show that entering the Best Companies list does not lead to an increase in long-term investor ownership. This is inconsistent with long-term investors self-selecting into firms with higher level of employee satisfaction.

To further examine the self-selection interpretation of our results, i.e., long-term investors selecting firms with higher levels of employee satisfaction, we follow Derrien, et al. (2013) and exploit the insight that indexers are long-term investors that cannot select the firms in which they invest[18]. We classify investors as indexers based on Cremers and Petajisto

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[17] We include long-term ownership as a matching criterion to make sure that variations in long-term ownership following the inclusion are not influenced by the initial level of long-term ownership.

[18] Indexers are long-term investors because the composition of the index does not change frequently overtime. Moreover, since by definition indexers seek to replicate the index, they do not have the possibility to select the firms in which they invest.

(2009)'s active share measure. Active share corresponds to the distance between the weights on each firm in the investor's portfolio and the weights in the index. For the index, we use the CRSP value weighted index. We classify investors with active share of up to 0.30 as indexers (e.g., Harford, et al. 2011). We then split long-term investor ownership into long-term indexer ownership and long-term non-indexer ownership. The results from Table VI, Panel B, show that both long-term indexer ownership and long-term non-indexer ownership have a positive impact on employee satisfaction. Since, as discussed previously, indexers are long-term investors that cannot select the firms in which they invest, this finding is inconsistent with self-selection.

[*Insert Table VI about here*]

To further address potential endogeneity issues, we conduct two instrumental variable analyses. In our first instrumental variable analysis, we exploit the fact that some investors trade more not because of valuation beliefs but to prevent withdrawals. Following Cella, et al. (2013), we use two measures of trading performance sensitivity to capture the variation in investor horizon that depends on funding structure rather than stock characteristics. As they explain, investors with lower correlation between funding and previous performance expect to have more stable funding and should have the possibility of taking a longer horizon on their investment.

In more details, in the spirit of Cella, et al. (2013), for each institutional investor, we compute two measures of trading performance sensitivity: *Trading Performance Sensitivity 1* is the correlation between the portfolio performance in quarter *t* and net trading in quarter *t+1* over a rolling window of 20 quarters. *Trading Performance Sensitivity 2* is the correlation between the portfolio performance in quarter *t* and net trading in quarter *t+1* when S&P 500

returns are in the bottom quintile of the distribution over a rolling window of 40 quarters. At the firm level, we average these two trading performance sensitivity measures, weighing them with the ownership stakes of the different investors. The two averages, to which we refer as *AVERAGE TPS 1* and *AVERAGE TPS 2*, are then use as instruments for investor horizon[19].

Table VI, Panel C, presents the results from the first and second stages of this instrumental variable analysis. The first stage confirms that *AVERAGE TPS 1* and *AVERAGE TPS 2* are relevant instruments for investor horizon. According to Stock, et al. (2002)'s survey of the weak-instrument literature, when the number of instruments is 2, the suggested critical F-value is 11.59. The partial F-statistic of our instruments is above this threshold (>13.43). In the second stage, the instrumental variable estimates confirm the effect of investor horizon on employee satisfaction (p=0.07).

In our second instrumental variable analysis, we use as instrument the yearly industry average of long-term investor ownership, excluding the firm itself. This approach has been used in previous studies analyzing the effects of ownership structure such as blockholder ownership on different firm specific characteristics (e.g., Faccio, et al., 2011; John, et al., 2008). Table VI, Panel D, reports the results. The first stage confirms that the yearly industry average is a relevant instrument for investor horizon at the firm level (67.81 > 8.96). In the second stage, the instrumental variable estimates confirm the positive effect of long-term investor ownership on employee satisfaction.

Overall, the two instrumental variable analyses confirm that, even after accounting for the potential endogeneity of investor horizons, long-term investor ownership continues to be a positive and significant determinant of employee satisfaction. Taken together, the findings

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[19] As in Cella, et al. (2013), we measure a firm's investor horizon as the share-weighted average institutional investor churn ratio, averaging each investor quarterly portfolio churn ratio over the last 20 quarters.

from this section support a causal effect of long-term investor ownership on employee satisfaction and are inconsistent with self-selection.

4. Conclusion

What determines a firm's ability to provide satisfying jobs to its employees? Given that existing evidence shows that employee satisfaction generates substantial firm value, better understanding its determinants is a crucial issue. The main contribution of this paper is to highlight that the investment horizon of a firm's investors is an important determinant of the satisfaction of its employees. The presence of long-term investors is important for the promotion of employee satisfaction because employee satisfaction is an intangible that is not immediately valued and only generates firm value over the long run. Consequently, managers will only dedicate time and effort to the promotion of employee satisfaction if they are insulated from short-termist pressures to boost current stock price and maximize shareholder value over the long-run. By focusing on intangibles that create value over the long-run, our paper provides new evidence that investor horizons affect corporate policies and, in turn, value creation.

Furthermore, our findings provide a test of an important prediction from Bénabou and Tirole (2010)'s win-win vision of CSR. In this vision, Bénabou and Tirole (2010) argue that an investor seeking to promote socially responsible behavior should position himself as a long-term investor. Our results confirm that for a win-win form of CSR, the presence of long-term investors play an important role in the promotion of CSR. Whether the presence of long-term investors also influences other dimensions of CSR than employee satisfaction is an important issue left for future research. Employee satisfaction is a particular dimension of CSR that has an especially strong theoretical and empirical link with firm value and therefore belongs to the set of initiatives that can be referred to as "doing well by doing good".

However, CSR comprises a myriad of dimensions that are not all necessarily associated with firm value. The role of long-term investors in promoting other dimensions of CSR is therefore unclear. In particular, long-term investors could discipline value-destroying CSR, such as insider-initiated corporate philanthropy that provides direct value to firm stakeholders but is financially costly (Bénabou and Tirole (2010)'s third vision of CSR). In the case where CSR is a manifestation of agency problems inside the firm, long-term investors who more stringently monitor managers could have a negative impact of CSR.

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Table I. Descriptive Statistics

Variables	N	mean	sd	p5	p25	p50	p75	p95
EMPLOYEE SATISFACTION	32,641	0.02	0.12	0.00	0.00	0.00	0.00	0.00
EMPLOYEE TREATMENT	11,847	0.24	0.55	0.00	0.00	0.00	0.00	1.00
MARKET-TO-BOOK	32,641	2.84	3.20	0.56	1.19	1.89	3.14	8.29
SIZE	32,641	6.60	1.74	3.98	5.35	6.45	7.69	9.78
TOTAL ASSETS	32,641	6,278	51,275	53	210	633	2,183	17,678
MARKET CAPITALIZATION	32,641	3,268	9,753	23	136	505	1,755	15,255
NUMBER OF EMPLOYEES	32,641	11.44	49.08	0.18	0.72	2.05	7.00	45.00
LEVERAGE	32,641	0.21	0.18	0.00	0.04	0.18	0.32	0.56
PROFITABILITY	32,641	0.11	0.11	-0.05	0.04	0.11	0.17	0.27
INSTITUTIONAL OWNERSHIP	32,641	0.57	0.30	0.06	0.32	0.61	0.81	0.99
LONG-TERM OWNERSHIP	32,641	0.30	0.18	0.04	0.18	0.28	0.40	0.62
AVERAGE TURNOVER	32,628	0.45	0.09	0.31	0.39	0.44	0.50	0.59
AVERAGE CHURNRATIO	32,628	1.07	0.20	0.76	0.92	1.06	1.22	1.40
AVERAGE DURATION	32,276	6.37	2.77	1.97	4.55	6.18	7.94	11.45
SRI OWNERSHIP	32,641	0.09	0.11	0.00	0.01	0.05	0.12	0.32
BUSHEE LONG-TERM OWNERSHIP	32,641	0.70	0.18	0.37	0.61	0.72	0.82	0.97
LONG-TERM INDEXER OWNERSHIP	32,641	0.18	0.11	0.02	0.10	0.17	0.24	0.38
LONG-TERM NON INDEXER OWNERSHIP	32,641	0.12	0.13	0.00	0.03	0.09	0.17	0.36
BLOCKHOLDER OWNERSHIP	32,641	0.53	0.26	0.16	0.32	0.49	0.75	0.96
OWNERSHIP CONCENTRATION MEAN	32,641	0.04	0.07	0.00	0.01	0.01	0.03	0.14
OWNERSHIP CONCENTRATION HHI	32,641	0.13	0.15	0.03	0.04	0.07	0.14	0.45
AVERAGE TPS 1	32,286	-0.07	0.10	-0.31	-0.13	-0.07	-0.01	0.24
AVERAGE TPS 2	28,192	-0.18	0.46	-0.94	-0.52	-0.28	0.18	0.92

Table II. Employee Satisfaction and Long-Term Investor Ownership

This table presents regressions of *EMPLOYEE SATISFACTION*, i.e., the probability for a firm to belong to the Best Companies list, on lagged long-term ownership and control variables. Column 1 presents the estimates of a probit model including industry and year fixed effects. Colum 2 presents the estimates of a logistic regression including year and firm fixed effects. Colum 3 presents the estimate of a linear probability model with firm and year fixed effects. Column 1 presents the estimates of a linear probability model with firm and year-industry fixed effects. *LONG-TERM OWNERSHIP* is the amount of shares owned by long-term institutional investors divided by the amount of shares owned by institutional investors. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

EMPLOYEE SATISFACTION	PROBIT	LOGIT	LPM (1)	LPM (2)
LONG-TERM OWNERSHIP	**0.072****	**0.622*****	**0.232*****	**0.187*****
	(0.029)	**(0.192)**	**(0.062)**	**(0.067)**
SIZE	0.677***	2.908***	1.663***	1.651***
	(0.026)	(0.463)	(0.583)	(0.500)
LEVERAGE	-0.365***	-0.276	-0.331*	-0.325*
	(0.033)	(0.196)	(0.194)	(0.191)
MARKET-TO-BOOK	0.142***	0.268***	0.360**	0.335**
	(0.017)	(0.098)	(0.164)	(0.163)
NUMBER OF EMPLOYEES	-0.208***	-0.415	0.105	0.184
	(0.039)	(0.603)	(0.240)	(0.216)
PROFITABILITY	0.235***	0.715***	0.184	0.223
	(0.030)	(0.175)	(0.146)	(0.142)
INSTITUTIONAL OWNERSHIP	-0.038	0.003	-0.145	-0.113
	(0.032)	(0.267)	(0.176)	(0.175)
Obs.	28,578	1,158	32,641	32,641
YEAR FE	YES	YES	YES	NO
IND. FE	YES	NO	NO	NO
YEAR*IND. FE	NO	NO	NO	YES
FIRM FE	NO	YES	YES	YES
FIRM CLUSTER	NO	NO	YES	YES
Adj R²	0	0	-	-
Prob > chi2	-1756	-392.6	-	-
LL	0.310	0.116	-	-
Pseudo R²	-	-	0.567	0.571
VIF	-	-	2.713	2.821

Table III. Employee Satisfaction and Long-Term Investor Ownership: Selection Bias

This table presents the results of the linear probability model regressions for different restricted samples: firms with more than 1,000 employees (1), firms with more than 5,000 employees (2), firms belonging to the S&P 500 (3), firms belonging to the S&P 1,500 (4), firms in the in the top yearly quartile in terms of market capitalization (5), firms in the top yearly quartile in terms of total assets (6), and firms that enter at least once the Best Companies list (7). Our main dependent variable is *EMPLOYEE SATISFACTION, i.e.,* is the probability for a firm to belong to the Best Companies list. Our main independent variable is *LONG-TERM OWNERSHIP*, which is the amount of shares owned by long-term institutional investors divided by the amount of shares owned by institutional investors. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

EMPLOYEE SATISFACTION	(1) Nb emp>1,000	(2) Nb emp>5,000	(3) S&P500	(4) S&P1500	(5) 25% top capi	(6) 25% top size	(7) Included once
LONG-TERM OWNERSHIP	**0.414*****	**0.487****	**1.201****	**0.490*****	**1.050****	**0.692****	**7.793*****
	(0.126)	**(0.231)**	**(0.586)**	**(0.162)**	**(0.423)**	**(0.329)**	**(2.722)**
SIZE	2.031**	0.859	4.870**	2.655***	5.705**	5.606**	37.688***
	(0.801)	(1.470)	(2.146)	(0.926)	(2.227)	(2.804)	(8.598)
LEVERAGE	-0.363	-0.317	-1.380	-0.384	-1.234	-1.461	-4.280
	(0.305)	(0.595)	(1.009)	(0.323)	(0.880)	(1.095)	(4.088)
MARKET-TO-BOOK	0.572*	0.578	0.801	0.618**	0.702	0.784	4.400*
	(0.295)	(0.482)	(0.487)	(0.264)	(0.473)	(0.662)	(2.485)
NUMBER OF EMPLOYEES	-0.027	-1.223*	-2.123	0.189	-1.117	-1.447	-1.954
	(0.348)	(0.715)	(3.784)	(0.532)	(3.463)	(4.964)	(14.929)
PROFITABILITY	0.507*	1.582***	1.257	0.371	1.439*	2.009*	10.306**
	(0.294)	(0.567)	(0.962)	(0.273)	(0.800)	(1.126)	(4.061)
INSTITUTIONAL OWNERSHIP	-0.155	-0.131	-0.841	-0.150	0.017	0.123	-2.030
	(0.247)	(0.419)	(0.798)	(0.285)	(0.707)	(0.707)	(4.577)
Obs.	21,778	10,120	5,873	18,056	8,481	8,481	1,277
YEAR FE	YES	YES	YES	YES	YES	YES	YES
IND FE	NO	NO	NO	NO	NO	NO	NO
FIRM FE	YES	YES	YES	YES	YES	YES	YES
CLUSTER FE	YES	YES	YES	YES	YES	YES	YES
Adj. R²	0.575	0.620	0.578	0.581	0.575	0.570	0.383

Table IV. Employee Satisfaction and Long-Term Investor Ownership: Alternative Measures

This table presents the results of the regressions for alternative measures of investor horizons and employee satisfaction. In the following regressions, we replace *LONG-TERM OWNERSHIP* by *AVERAGE TURNOVER (1)*, which is the share-weighted average portfolio turnover of a firm's institutional investors, *AVERAGE CHURNRATIO (2)*, which is the share-weighted average portfolio churn ratio of a firm's institutional investors, *AVERAGE DURATION (3)*, which is the share-weighted average stock holding duration a firm's institutional investors, and *BUSHEE LONG-TERM OWNERSHIP (4)*, which is the ownership of long-term investors as defined in the Bushee's classification (quasi-indexers and dedicated investors). In column 5, we replace *EMPLOYEE SATISFACTION* by *EMPLOYEE TREATMENT*, which is sum of the KLD strengths related to employee treatment and use an ordered probit regression for the estimation. Our main dependent variable is *EMPLOYEE SATISFACTION*, i.e., the probability for a firm to belong to the Best Companies list. Our main independent variable is *LONG-TERM OWNERSHIP*, which is the amount of shares owned by long-term institutional investors divided by the amount of shares owned by institutional investors. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

EMPLOYEE SATISFACTION	(1) Turnover	(2) Churnratio	(3) Duration	(4) Bushee's classification	EMPLOYEE TREATMENT	(5) Ordered Probit Regression
LONG-TERM OWNERSHIP						0.087***
						(0.024)
SIZE	1.631***	1.672***	1.813***	1.622***		0.636***
	(0.579)	(0.580)	(0.599)	(0.577)		(0.020)
LEVERAGE	-0.347*	-0.342*	-0.381*	-0.351*		-0.163***
	(0.194)	(0.194)	(0.200)	(0.194)		(0.018)
MARKET-TO-BOOK	0.380**	0.364**	0.392**	0.386**		0.101***
	(0.165)	(0.164)	(0.172)	(0.167)		(0.016)
NUMBER OF EMPLOYEES	0.095	0.093	0.063	0.093		-0.114***
	(0.240)	(0.239)	(0.243)	(0.240)		(0.035)
PROFITABILITY	0.195	0.183	0.191	0.195		0.010
	(0.146)	(0.146)	(0.148)	(0.146)		(0.020)
INSTITUTIONAL OWNERSHIP	-0.124	-0.154	-0.138	-0.150		-0.051**
	(0.175)	(0.173)	(0.183)	(0.175)		(0.024)
AVERAGE TURNOVER	-0.257***					
	(0.070)					
AVERAGE CHURNRATIO		-0.199*				
		(0.106)				
AVERAGE STOCK DURATION			0.300***			
			(0.094)			
BUSHEE LONG-TERM OWNERSHIP				0.199***		
				(0.063)		
Obs.	32,628	32,619	32,276	32,641		11,847
YEAR FE	YES	YES	YES	YES		YES
IND FE	NO	NO	NO	NO		YES
FIRM FE	YES	YES	YES	YES		NO
FIRM CLUSTER	YES	YES	YES	YES		-
Adj R²	0.567	0.567	0.566	0.567		-
Prob > chi2	-	-	-	-		0
LL	-	-	-	-		-5815
Pseudo R²	-	-	-	-		0.183

Table V. Employee Satisfaction and Long-Term Investor Ownership: Effect Identification

Regressions of *EMPLOYEE SATISFACTION*, i.e., the probability for a firm to belong to the Best Companies list, on lagged long-term ownership and control variables. *LONG-TERM OWNERSHIP* is the amount of shares owned by long-term institutional investors divided by the amount of shares owned by institutional investors. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. In columns 1, 2, and 3, we control for ownership concentration by adding *BLOCKHOLDER OWNERSHIP*, the ownership by institutional investors with at least 5% ownership, *OWNERSHIP CONCENTRATION MEAN*, the average ownership of a firm's institutional investors, and the *OWNERSHIP CONCENTRATION HHI,* the Herfindahl-Hirschman Index of institutional investors' ownership, respectively. In column 1, we control for *SRI OWNERSHIP*, the ownership by socially responsible institutional investors, whereby we define an institutional investors as socially responsible if its portfolio is sin-stock free. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

EMPLOYEE SATISFACTION	(1) BLOCK	(2) MEAN	(3) HHI	(4) SRI
LONG-TERM OWNERSHIP	**0.232*****	**0.232*****	**0.232*****	**0.231*****
	(0.062)	**(0.063)**	**(0.062)**	**(0.063)**
SIZE	1.639**	1.668***	1.690***	1.662***
	(0.636)	(0.591)	(0.596)	(0.584)
LEVERAGE	-0.325	-0.332*	-0.337*	-0.331*
	(0.199)	(0.195)	(0.195)	(0.194)
MARKET-TO-BOOK	0.355**	0.361**	0.365**	0.360**
	(0.163)	(0.164)	(0.163)	(0.164)
NUMBER OF EMPLOYEES	0.107	0.104	0.101	0.105
	(0.238)	(0.239)	(0.239)	(0.240)
PROFITABILITY	0.178	0.184	0.190	0.184
	(0.139)	(0.145)	(0.144)	(0.146)
INSTITUTIONAL OWNERSHIP	-0.163	-0.142	-0.124	-0.145
	(0.199)	(0.174)	(0.178)	(0.176)
SRI OWNERSHIP				-0.007
				(0.035)
BLOCKHOLDER OWNERSHIP	-0.044			
	(0.207)			
MEAN OWNERSHIP CONCENTRATION		0.016		
		(0.057)		
HHI OWNERSHIP CONCENTRATION			0.079	
			(0.078)	
Obs.	32,641	32,641	32,641	32,641
YEAR FE	YES	YES	YES	YES
FIRM FE	YES	YES	YES	YES
FIRM FE	YES	YES	YES	YES
Adj. R²	0.567	0.567	0.567	0.567

Table VI. Employee Satisfaction and Long-Term Investor Ownership: Causality vs. Selection

Panel A: Change in long-term ownership following the inclusion in the Best Companies list

This panel reports the difference in long-term investor ownership variation at year *t+1* between firms that enter the Best Companies list at year *t* and matched firms that do not. We find a matching firm for each firm using the nearest neighborhood, a Gaussian kernel, and local linear regression approaches. All matchings are conducted with replacement. The variables we use in matching are size, leverage, market-to-book, profitability, number of employees scaled by total assets, institutional ownership, long-term ownership, industry dummies and year dummies. We drop 2% of observations for which the propensity score density of the matched observations is the lowest. Bootstrapped standard errors are based on 50 replications with replacement. The p-values are in parentheses. Bias-corrected 95% confidence intervals are in brackets.

	Nearest Neighborhood	Gaussian Kernel	Local Linear Regression
Long-term ownership variation following the inclusion in the Best Companies list			
Difference	0.053	0.029	0.063
P-Value	(0.122)	(0.063)	(0.062)
Confidence Interval	[-0.186 ; 0.293]	[-0.095 ; 0.154]	[-0.059 ; 0.185]

Panel B: Long-term indexer ownership and long-term non indexer ownership

This panel presents the results of regressions of *EMPLOYEE SATISFACTION*, i.e., the probability for a firm to belong to the Best Companies list, on lagged long-term indexer ownership, long-term non indexer ownership, and control variables. *LONG-TERM INDEXER OWNERSHIP* is the proportion of long-term investors that are also indexers, i.e., have an active share measure of 0.30 or lower. *LONG-TERM NON INDEXER OWNERSHIP* is the proportion of long-term investors that are not indexers, i.e., have an active share measure superior to 0.30. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

EMPLOYEE SATISFACTION	
LONG-TERM INDEXER OWNERSHIP	**0.149****
	(0.074)
LONG-TERM NON INDEXER OWNERSHIP	**0.171*****
	(0.057)
SIZE	1.664***
	(0.584)
LEVERAGE	-0.331*
	(0.194)
MARKET-TO-BOOK	0.360**
	(0.164)
NUMBER OF EMPLOYEES	0.105
	(0.240)
PROFITABILITY	0.184
	(0.146)
INSTITUTIONAL OWNERSHIP	-0.145
	(0.175)
Obs.	32,641
YEAR FE	YES
FIRM FE	YES
CLUSTER FIRM	YES
Adj. R²	0.567

Panel C: Instrumental variable approach: Exogenous variations in investor turnover

This panel reports the results obtained from a two-stage instrumental variable regression. Investor horizon (*AVERAGE CHURNRATIO*), in the second stage, is instrumented by *AVERAGE TPS 1* and *AVERAGE TPS 2*, which are two measures of a firm's investor correlation between net trading and past performance. *EMPLOYEE SATISFACTION* is the probability for a firm to belong to the Best Companies list. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. This table presents instrumental variable estimates. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

First Stage		Second Stage	
AVERAGE CHURNRATIO	(1)	*EMPLOYEE SATISFACTION*	(2)
AVERAGE TPS 1	**0.261*****	*AVERAGE CHURNRATIO*	**-3.513***
	(0.075)		**(1.961)**
AVERAGE TPS 2	**0.013*****		
	(0.003)		
SIZE	-0.121***	*SIZE*	1.174***
	(0.017)		(0.432)
LEVERAGE	-0.009	*LEVERAGE*	-0.295**
	(0.006)		(0.119)
MARKET-TO-BOOK	0.020***	*MARKET-TO-BOOK*	0.435***
	(0.005)		(0.133)
NUMBER OF EMPLOYEES	-0.031**	*NUMBER OF EMPLOYEES*	-0.106
	(0.014)		(0.186)
PROFITABILITY	0.014**	*PROFITABILITY*	0.139
	(0.006)		(0.107)
INSTITUTIONAL OWNERSHIP	0.109***	*INSTITUTIONAL OWNERSHIP*	-0.223
	(0.008)		(0.254)
Obs.	27,103		27,103
YEAR FE	YES		YES
FIRM FE	YES		YES
CLUSTER FIRM	YES		YES
Test of Excluded Instruments	13.43*** (0.00)		

Panel D: Instrumental variable approach: Industry average long-term investor ownership

This panel reports the results obtained from a two-stage instrumental variable regression. Long-term investor ownership, in the second stage, is instrumented by the yearly industry (two-digit sic code) average of long-term investor ownership, excluding the firm itself *(INDUSTRY AVERAGE LT OWNERSHIP)*. *EMPLOYEE SATISFACTION* is probability for a firm to belong to the Best Companies list. *LONG-TERM OWNERSHIP* is the amount of shares owned by long-term institutional investors divided by the amount of shares owned by institutional investors. *INSTITUTIONAL OWNERSHIP* represents the percentage of common shares outstanding owned by institutional investors. *SIZE* is the natural logarithm of the firm total assets. *LEVERAGE* is the ratio of short-term and long-term debts over total assets. *MARKET-TO-BOOK* is the market capitalization divided by the book value of equity. *NUMBER OF EMPLOYEES* is the number of employees scaled by total assets. *PROFITABILITY* is measured as the earnings before interest, taxes, depreciations, and amortizations divided by total assets. Standard errors are robust to heteroscedasticity. ***. **. and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Below each coefficient estimate is its corresponding robust standard error in parentheses. Constants are not reported. Detailed variable definitions are in the Appendix.

First Stage		Second Stage	
LONG-TERM OWNERSHIP	(1)	*EMPLOYEE SATISFACTION*	(2)
INDUSTRY AVERAGE LT OWNERSHIP	**0.292***	*LONG-TERM OWNERSHIP*	**3.570****
	(0.035)		**(1.729)**
SIZE	0.13***	*SIZE*	1.238**
	(0.034)		(0.641)
LEVERAGE	-0.034**	*LEVERAGE*	-0.216*
	(0.013)		(0.202)
MARKET-TO-BOOK	-0.008	*MARKET-TO-BOOK*	0.390***
	(0.008)		(0.150)
NUMBER OF EMPLOYEES	-0.002	*NUMBER OF EMPLOYEES*	0.109
	(0.032)		(0.250)
PROFITABILITY	-0.012	*PROFITABILITY*	0.233
	(0.009)		(0.147)
INSTITUTIONAL OWNERSHIP	-0.122***	*INSTITUTIONAL OWNERSHIP*	0.263
	(0.018)		(0.305)
Obs.	30,932		30,932
YEAR FE	YES		YES
FIRM FE	YES		YES
CLUSTER FIRM	YES		YES
Test of Excluded Instruments	67.81*** (0.00)		

Appendix. Variable Definitions

Variables	Definition
Firm ownership variables	
INSTITUTIONAL OWNERSHIP	Total institutional investor ownership of the firm. Sum of 13F positions reported by institutional investors expressed as a percentage of firm total common shares outstanding.
LONG-TERM OWNERSHIP	The fraction of a firm's shares held by long-term institutional investors scaled by institutional investor ownership. Following Derrien et al. (2013), we define long-term investors as institutional investors with a portfolio turnover of 35% or less.
AVERAGE TURNOVER	The share-weighted average of the portfolio turnovers of a firm's institutional investors. Portfolio turnovers are computed following Derrien et al. (2013).
AVERAGE CHURNRATIO	The share-weighted average of the portfolio churn rates of a firm's institutional investors. Portfolio churn ratios are computed following Cella et al. (2013). For each investor, we compute, quarterly, its portfolio churn rates and smooth this measure over the last 20 quarters.
BUSHEE LONG-TERM OWNERSHIP	The fraction of a firm's shares held by institutional investors, which are considered as dedicated investors or quasi-indexers according to Bushee (1998)'s classification, scaled by institutional investor ownership.
AVERAGE STOCK DURATION	We compute it following Cremers and Pareek (2015). First, for each stock in a given institution's portfolio, we compute how long the stock has been held on average taken into consideration buys and sells occurring over the holding period. Next, we compute *AVERAGE STOCK DURATION* at the individual stock level by averaging institutional stock level duration over all institutions currently holding the stock, using as weights each institution's total current holdings in the stock.
BLOCKHOLDER OWNERSHIP	The fraction of a firm's shares held by institutional blockholders scaled by institutional investor ownership. Following Holderness (2003), we classify as blockholders investors that own at least 5% of a firm's shares.
OWNERSHIP CONCENTRATION MEAN	Average ownership percentage of a firm's institutional investors.
OWNERSHIP CONCENTRATION HHI	Herfindahl-Hirschman Index of the ownership percentage of a firm's institutional investors.
SRI OWNERSHIP	The fraction of a firm's shares held by socially-responsible institutional investors scaled by institutional investor ownership. We define socially-responsible investors as investors that do not hold any sin stocks in their portfolio, with sin stocks being defined as stocks from the tobacco, alcohol and beers, and gaming industries (Hong and Kacperczyk, 2009).
Other firm variables	
EMPLOYEE SATISFACTION	Dummy variable that equals one if a firm is included in the list of the "Best Companies to Work in America" and 0 otherwise.
EMPLOYEE TREATMENT	Sum of the KLD strengths related to employee relations.
SIZE	Natural logarithm of firm total assets (*at*).
LEVERAGE	Short-term (*dlc*) and long-term debt (*dltt*) divided by firm total assets (*at*).
MARKET-TO-BOOK	Market value of equity (*mkvalt*) divided by the book value of common equity (*ceq*) of the firm.
NUMBER OF EMPLOYEES	Number of employees (*emp*) scaled by total assets (*at*).
PROFITABILITY	Earnings before interest, taxes, depreciation and amortization (*ebitda*) over total assets (*at*).

Instrumental variables

INDUSTRY AVERAGE LT OWNERSHIP	Yearly industry (two-digit sic code) average of long-term investor ownership, excluding the firm itself.
AVERAGE TPS 1	The investor correlation between quarter *t-1* portfolio performance and quarter *t* net trading over the last 20 quarters for all the investors holding stocks in firm *j* using as weights the number of shares held by each investor *i* in firm *j* (see Cella et al. 2013).
AVERAGE TPS 2	The investor correlation between quarter *t-1* portfolio performance and quarter *t* net trading over the last 40 quarters and only over quarters during which the S&P 500 Index return is in the bottom quintile for all the investors holding stocks in firm *j* using as weights the number of shares held by each investor *i* in firm *j* (see Cella et al. 2013).

Note: In parentheses, we refer to Compustat data by their name.