

Investor Horizons and Employee Satisfaction

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Abstract

What determines a firm's ability to provide a satisfying workplace to its employees? In this paper, we study 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 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 investor 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. In addition, we find that blockholders have a positive impact on employee satisfaction. However, the effect of investor horizons cannot be explained away by investor concentration.

JEL classification: G23, G32, J28, M14

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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' business³. 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 advantage⁴.

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, Sapienza, and Zingales (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? In practice, anecdotal evidence suggests that not all firms manage to offer satisfying workplace to their employees⁵. In this paper, we investigate the effect of investor horizons on employee satisfaction.

³ As Hong, Kubik, and Scheinkman (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, Bryant, and Vardaman 2010; Becker and Gerhart 1996; Huselid 1995; Likert 1961; McGregor 1960; Pfeffer 1994).

⁵ Anecdotal evidence indicates that, for many employees, the 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.

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 the value of intangibles (e.g., Aboody and Lev 1998; Aksoy et al. 2008; Amihud and Mendelson 1986; Chan, Lakonishok, and Sougiannis 2001; Deng, Lev, and Narin 1999; Lev and Sougiannis 1996). 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 employee satisfaction is an intangible that is mispriced by the market over the short-run but generates substantial firm value over the long run, the horizon of a firm's investors potentially matters. Indeed, the mispricing of employee satisfaction implies that short-term and long-term investors do not equally benefit from a firm's management promoting it. While long-term investors are able to wait until the value of the employee satisfaction is fully incorporated into the stock price, short-term investors might have to sell their shares when the value of employee satisfaction is still mispriced. Long-term investors will therefore prefer more investment aiming to generate a more satisfying workplace than short-term investors. If managers maximize the wealth of the firm's average investor (e.g., Miller and Rock 1985; Stein 1996), the longer is the horizon of the firm's average investor, the more managers should be inclined to promote employee satisfaction. We therefore predict the presence of long-term investors has a positive impact on employee satisfaction.

An extensive literature shows that, in presence of long-term investors, managers indeed maximize long-term shareholder value. First, long-term institutional investors have higher means and incentives to monitor managerial behavior destroying long-term value. They exert influence on managers in public or private ways, alone and in concert with other institutional investors and activists, using voice⁶, exit, and threat to exit in a complementary fashion (e.g., Admati and Pfleiderer 2009; Becht, Franks, Mayer, and Rossi 2009; Edmans 2009; McCahery, Sautner, and Starks 2016). Consistent with long-term investors exerting power in the firm to encourage long-term value maximization, empirical evidence shows that long-term investor ownership deters managerial myopia (Bushee 1998), earnings management (Burns, Kedia, and Lipson 2010; Koh 2007) and overinvestment (Cella 2009; Harford, Kecskés, and Mansi 2016), while improving innovation (Aghion, Van Reenen, and Zingales 2013), merger and acquisition outcomes and firm performance (Chen, Harford, and Li 2007; Gaspar, Massa, and Matos 2005; Harford, Kecskés, and Mansi 2016)⁷. Second, long-term investors trade relatively more on fundamental news, as a result long-term investor ownership reduces market reactions to short-term performance news, allowing management to focus on long-term value creation (e.g., Hotchkiss and Strickland 2003; Ke and Petroni 2004; Ke and Ramalingegowda 2005). Third, long-term investors attenuate the influence of temporary stock mispricing on managerial decisions, encouraging management to focus on long-term value creation (e.g., Derrien, Kecskés, and Thesmar 2013; Polk and Sapienza 2009).

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

⁶ Voice interventions might take the form of formal or informal discussion with management and board members, or more direct proxy fighting or shareholder proposals.

⁷ Long-term investors make also manager compensation less sensible to short-term performance and lengthening CEO tenure (e.g., Cadman and Sunder, 2014; Gao, Harford, and Li, 2015).

involves surveying several dimensions and represents the most respected and prominent measure available. It also has the advantage of covering a long time period (it is updated on a yearly basis since 1998). To measure long-term investor ownership, we follow recent literature in corporate finance, and use portfolio turnover as a proxy for investor horizons (Derrien, Kecskés, and Thesmar 2013; Gaspar, Massa, and Matos 2005; Harford, Kecskés, and Mansi 2014).

Our results show that the presence of long-term investors is strongly associated with employee satisfaction. This association is very robust to the introduction of numerous control variables such as size, institutional ownership, market-to-book ratio, leverage, labor intensity, and profitability. The use of alternative measures of investor horizons confirms the positive effect of long-term investor ownership on employee satisfaction. Further investigation shows that firms in the Best Companies list tend to be large firms, that many of them belong to the S&P 500 (73%), and that almost all of them belong to the S&P 1500 (94%). We therefore reproduce our main empirical analysis on different subsamples of firms (S&P 500 firms, S&P 1500 firms, and the largest firms) in order to exclude firms that are less likely to be similar to firms in the Best Companies list. We find that the positive association between investor horizons and employee satisfaction remains very strong for each subsample.

Firms belonging to the Best Companies list are clearly firms with high levels of employee satisfaction. However, a concern with this measure of employee satisfaction is that the Best Companies list is relatively small (100 firms each year). This means that firms with more intermediate levels of employee satisfaction do not appear in the Best Companies list. To explore more broadly the relationship between investor horizons and employee satisfaction, we compute an employee treatment index, based on the KLD strengths in employee relations (e.g., Bae, Kang, and Wang 2011; Ghaly, Dang, and Stathopoulos 2015b). We find that long-term investors also have a positive impact on employee treatment. This

finding further alleviates the concern that our results suffer from a selection bias due to the way companies are considered for inclusion in the Best Companies list.

A potential issue is that our measures of investor horizons may capture other shareholders' characteristics. In particular, long-term investors are more likely to be blockholders. Firms with greater long-term investor ownership have therefore potentially 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). To examine how investor horizons, as opposed to investor concentration, have an impact on employee satisfaction, we split long-term investor ownership into long-term blockholder ownership and long-term non-blockholder ownership. We find that both subgroups of long-term investors have a positive effect on employee satisfaction. The positive effect of long-term blockholder ownership is consistent with the prediction of Edmans (2009), according to which, blockholders encourage managers to invest for long-run growth rather than short-term profits. However, the positive effect of long-term non-blockholder ownership indicates that investor horizons have an impact on employee satisfaction above and beyond investor concentration.

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 higher levels of employee satisfaction. 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, Kecskés, and Thesmar (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 indexers and non-indexers, and we find that both subgroups have a positive impact on employee satisfaction. Third, we consider two instrumental variable analyses. In our first 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 effect of ownership structure such as blockholder ownership on different firm specific characteristics (e.g., Faccio, Marchica, and Mura 2011; John, Litov, and Yeung 2008). In our second instrumental variable analysis, we exploit the fact that some investors trade more not because of valuation beliefs but to prevent withdrawals. Following Cella, Ellul, and Giannetti (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 analyses confirm that long-term investor ownership has a strong and positive impact on employee satisfaction. Taken together, these findings are inconsistent with self-selection and support a causal effect of long-term ownership on employee satisfaction.

Our paper is related to several streams of research in corporate finance. First, investigating the question as to what determines a firm's ability to invest in employee satisfaction, and more generally in intangibles, follows naturally from recent literature showing that such intangibles are value-enhancing (e.g., Edmans 2011; Edmans 2012). Due to the mispricing of intangibles, we argue, and find supportive evidence, that the presence of long-term investors in a firm's ownership has a positive effect on employee satisfaction. Further research is necessary to examine what, on top of a firm's ownership composition, determines its ability to invest in intangibles.

Second, our paper contributes to the literature on labor investment (e.g., Benmelech, Bergman, and Seru 2011; Ben-Nasr and Alshwer 2016; Jung, Lee, and Weber 2014). These papers analyze the influence of different firm characteristics on employment decisions and in particular on labor investment efficiency (measured by abnormal net hiring). Most closely related to our paper, Ghaly, Dang, and Stathopoulos (2015a) find a positive effect of long-term investors on labor investment efficiency, which is consistent with the well-documented monitoring role of long-term investors on corporate investment. Our paper shows that, on top of ensuring that managers make optimal employment choices, long-term investor ownership encourages them to promote optimal working conditions.

Third, our paper contributes to the growing literature on investor horizons and their impact on corporate policies. In line with the theoretical framework from Froot, Perold, and Stein (1992) and Stein (1988), 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 more short-term investor ownership behave more myopically and cut R&D expenditures to increase short-term performance. Similarly, Gaspar, Massa and Matos (2005) and Chen, Harford, and Li (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. Harford, Kecskes, and Mansi (2016) show that long-term investors through their monitoring improve corporate decision making. 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, Kecskés, and Thesmar 2013; Polk and Sapienza 2009). In our case, investor horizons

matter for firm investment decisions because employee satisfaction is an intangible asset that is underpriced by the stock market, independently on whether or not the firm as a whole is mispriced. Finally, Kecskes, Mansi, and Nguyen (2015) document that long-term investors increase the value to shareholders of CSR. Their findings suggest that investing in CSR can create shareholder value as long as it is monitored by long-term investors. By contrast, we focus on a specific dimension of CSR (i.e., employee satisfaction) that has an especially strong link, both theoretically and empirically, to firm value. In other words, in our case, the value associated with employee satisfaction is exogenous to the presence of long-term investors. As Kecskes, Mansi, and Nguyen (2015), our paper builds on the insight that long-term investors encourage managers to maximize shareholder value over the long-run. However, in our case, long-term investors play a role in fostering employee satisfaction because it is an intangible that is not immediately valued by the market but generates value over the long-run (Edmans 2011, 2012).

Fourth, while there is growing empirical evidence on the links between CSR and different firm characteristics such as leverage 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, Ioannou, and Serafeim 2014; Hong, Kubik, and Scheinkman 2012), cash holdings (e.g., Ghaly, Dang, and Stathopoulos 2015b), financial leverage (e.g., Bae, Kang, and Wang 2011; Barnea and Rubin 2010), managers' political affiliations (e.g., Di Giuli and Kostovetsky 2014), and board characteristics (e.g., Bear, Rahman, and Post 2010; Harjoto, Laksmana, and Lee 2014; Post, Rahman, and Rubow 2011). 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 Bénabou and Tirole (2010) argue that an investor seeking to promote socially responsible

behavior should position himself as a long-term investor. Employee satisfaction clearly belongs to the win-win form of CSR and our results provide empirical evidence 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 CSR 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 their links to value creation (e.g., Margolis, Elfenbein, and Walsh 2007). 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).

The rest of the paper is organized as follows. Section 2 presents the sample and the data. Section 3 presents the main results and 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, the 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 the 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. It spans five main categories: credibility, respect, fairness, pride, and

camaraderie⁸. The other third of a company's score 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 a thorough measure of overall job satisfaction that involves surveying several dimensions (Edmans 2011). It is arguably the most respected and prominent measure available⁹.

The key advantage of the Best Companies list is that it provides an independent measure of employee satisfaction (e.g., Edmans 2011; Orlitzky 2013). Firms in the Best Companies list are clearly firms with high levels of employee satisfaction. However, one concern is that Fortune list is relatively small and only publishes the names of the 100 Best Companies. As a result, firms with more intermediate levels of employee satisfaction do not appear in the list. To explore more broadly the relationship between investor horizons and employee satisfaction, we compute an employee treatment index, which captures more generally the existence of employee-friendly initiatives.

To measure how fairly 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

⁸ Sample survey questions in the Great Place to Work Institute's survey of the "Best Companies to Work for" can be found in Edmans (2012) and Guiso, Sapienza, and Zingales (2015).

⁹ Using this measure, Edmans (2011) shows that employee satisfaction creates substantial firm value.

company has strong health and safety programs). Based on the indicator variables for these five strengths in employee relations, we create a measure of employee treatment corresponding to the sum of the five indicator variables (e.g., Bae, Kang, and Wang 2011; Ghaly, Dang, and Stathopoulos 2015b). This employee treatment index ranges between zero and five, with higher values indicating better employee treatment.

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 identify long-term investors, we follow recent literature in corporate finance and measure investor horizons based on their portfolio turnover (e.g., Cella, Ellul, and Giannetti 2013; Chen, Harford, and Li 2007; Derrien, Kecskés, and Thesmar 2013; Gaspar, Massa, and Matos 2005; Yan and Zhang 2009). Although investor horizons are not directly observable, the rationale behind this approach is that an investor which changes very frequently the composition of its portfolio is more likely to have a shorter investment horizon. In line with existing literature, we compute measures of investor horizons only for institutional investors covered by the 13F Thomson Files, for which we have data on their stock portfolio composition over time. Hereafter, by "investors" we thus mean institutional investors.

More specifically, based on quarterly data from 13F Thomson Files, we start by computing the portfolio turnover of each investor as the fraction of its portfolio sold during the last twelve quarters (Derrien, Kecskés, and Thesmar 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 investors either as having short-term or long-term horizon. Following Derrien, Kecskés, and Thesmar (2013), we consider that an investor has a long-term horizon (short-term horizon) if its average portfolio turnover is below (above) 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 ownership¹⁰.

The main advantage of this measure is that it does not increase with institutional ownership and therefore ensures that any effect of long-term investors on employee satisfaction cannot be attributed to institutional investors as a whole. As an additional measure of investor horizons, we use the fraction of shares in the hands of long-term investors. While this measure increases with total institutional ownership, it captures more directly the power long-term investors have inside the firm. As a third measure of investor horizons, we use 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 the way we classify institutional investors into short-term and long-term investors. Finally, 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 purchases in the computation of the stock portfolio rotation rate (e.g., Gaspar, Massa, and Matos 2005). Following Cella, Ellul, and Giannetti (2013), we use portfolio churn ratios averaged over the last 20 quarters. The Appendix provides detailed definitions of our different proxies of investor horizons.

2.3. Control variables

We include several control variables in our analysis. First, we control for total institutional ownership in order to capture the effect that institutional investors as a whole might have on employee satisfaction. 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, Kang, and Wang

¹⁰ By construction, long-term investor ownership and short-term investor ownership together comprise total institutional ownership and therefore their sum lies between 0 and 1.

2011; Barnea and Rubin 2010). Moreover, greater financial constraints are negatively associated with CSR (e.g., Cheng, Ioannou, and Serafeim 2014; Hong, Kubik, and Scheinkman 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 satisfying jobs. We also control for labor intensity (i.e., the ratio of the number of employees scaled by total assets). *Ceteris paribus*, a firm with higher labor intensity should devote more resources to provide a satisfying workplace to its employees, we thus expect a negative relation. We provide a detailed definition of all variables in the Appendix.

2.4. Sample selection

We obtain stock and index returns from CRSP, accounting data from S&P Compustat, and investor ownership information from 13F Thomson Files. 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. First, we exclude utilities (i.e., firms that have primary SIC codes between 4,900 and 4,999)¹¹. 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 period¹². In addition, companies that have been operating for less than five years are not eligible. We therefore further restrict our sample to firms that have been present in Compustat for at least five years. At this stage, we have no

¹¹ 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 exclude financial firms.

¹² In section 2.3, we assess the robustness of our results to higher threshold of the minimum number of employees.

objective reason to impose any further restrictions. However, in section 3.3, we check that our results hold for various subsamples such as S&P 500 or S&P 1500 firms.

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. We obtain a final sample of 32,621 firm-year observations (4,824 unique firms). Finally, we winsorize all independent variables at the 1st and 99th percentiles.

3. Results

3.1. Summary statistics

Table 1 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. This confirms that, as mentioned previously, firms in the Best Companies list are firms with very high levels of employee satisfaction and thus represents only a small portion of firms. The average employee treatment index is 0.24 and 19% of firms with available KLD ratings have a strictly positive employee treatment index. As discussed previously, the employee treatment index allows us to explore more broadly the relationship between investor horizons and employee satisfaction. The median firm in our sample has 2,060 employees, total assets around \$634 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%. On average, the fraction of total shares held by long-term institutional investors is 17% and long-term investor ownership amounts to 30% of total institutional ownership.

[Insert Table 1 about here]

3.2. Main results

We start our empirical analysis by regressing employee satisfaction, measured as whether or not a firm belongs to the Best Companies list, on long-term investor ownership and control variables. We use a linear probability model (OLS regression) with year and firm fixed effects to control for unobservable invariant characteristics at the firm level¹³. Standard errors are robust to heteroscedasticity and clustered by firm. 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.

Table 2 reports the results. Regression 1 shows a significant and positive association between long-term investor ownership and employee satisfaction. Economically, the effect of long-term investor ownership on employee satisfaction is strong. 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 the mean of 2% in our sample. The use of alternative measures of investor horizons confirms the association between investor horizons and employee satisfaction. In regression 2, we use the percentage of a firm's shares in the hands of long-term investors. In regressions 3 and 4, we use the weighted average of the portfolio turnover of a firm's investors and the weighted average of the portfolio churn ratio of a firm's investors, respectively. These two variables are inversely related to investor horizons and therefore their strongly significant negative effect has to be interpreted as a positive effect of long-term investors on employee satisfaction.

¹³ There is a significant literature showing that binary choice models, such as probit and logit, can be biased when using a fixed effect specification. However, in unreported tests, we check that our results are unchanged if we use logit or probit specifications.

The results on our control variables deserve some attention. In line with anecdotal evidence, larger firms are more likely to belong to the Best Companies list. Consistent with previous empirical evidence on the link between leverage and CSR or employee treatment (e.g., e.g., Bae, Kang, and Wang 2011; Barnea and Rubin 2010), we find a negative association between leverage and employee satisfaction. The positive sign on market-to-book indicates that firms that with more investment opportunities have higher levels of employee satisfaction. Finally, results indicate that institutional ownership is not associated with employee satisfaction except in regression 2, where long-term investor ownership is computed as a fraction of a firm's total shares outstanding. In this case, ceteris paribus, a higher level of institutional ownership corresponds to a greater short-term institutional ownership, which explains the observed negative impact.

[Insert Table 2 about here]

3.3. Sample restrictions

As discussed previously, 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 appear in the Best Companies list may be quite different from some other firms in our sample. Further analysis reported in Table 3, Panel A, shows the majority of firms in the Best Companies list are S&P500 firms (73%) and almost all of them are S&P 1500 firms (94%). For these two subsamples, the proportion of firms in the Best Companies list is higher and represents 6.27% and 2.64%, respectively. Moreover, most firms in the Best Companies list also appear to be in the top quartile of our sample in terms of market capitalization (86%). For this subsample, the proportion of firms belonging to Best Companies list is 5.15%. Table 3, Panel B, confirms

that firms in S&P 500 and firms in the top quartile of our sample in terms of market capitalization are comparable to firms belonging to the Best Companies list. The mean values along the main independent variables used in the empirical study are close, especially compared to the mean values of these variables for the whole sample.

These empirical observations motivate us to examine the effect of investor horizons on employee satisfaction in several subsamples to exclude from our analysis firms which are less likely to be comparable to firms in the Best Companies list. Table 3, Panel C, presents the results of our main regression (regression 1 from Table 2) for each subsample. In regressions 1 and 2, we restrict the sample to S&P 500 and S&P 1500 firms. In regression 3, we focus on the largest firms (top quartile) as measured by market capitalization. In all regressions, we find that long-term investor ownership is significantly and positively associated with employee satisfaction. These results indicate that the positive association between investor horizons and employee satisfaction remains very strong when we concentrate our analysis on firms which are more likely to be similar to the Best Companies firms.

[Insert Table 3 about here]

3.4. Investor horizons and employee treatment

In the previous section, we show, that when we consider subsamples where the proportion of firms included in the Best Companies list is higher, our main results are unchanged. However, even for these subsamples, firms in the Best Companies list still represent a relatively low percentage of firms. Firms in the Best Companies list are clearly firms with high levels of employee satisfaction. However, since the Best Companies list is relatively small, firms with more intermediate levels of employee satisfaction do not appear in the list. To explore more broadly the relationship between investor horizons and employee

satisfaction, we use an employee treatment index based on KLD ratings (Bae, Kang, and Wang 2011; Ghaly, Dang, and Stathopoulos 2015b).

Table 4 reports the results of ordered probit regressions of employee treatment on our different measures of investor horizons and control variables¹⁴. Consistent with the results from Table 2, Table 4 shows a strong and positive association between long-term investor ownership and employee treatment. In line with results from Table 2, we find that larger firms, firms with lower leverage, and firms with more investment opportunities have higher levels of employee treatment. The results also indicate a negative association between labor intensity and employee treatment. This is consistent with the idea that, *ceteris paribus*, a firm with higher labor intensity should devote more resources to provide better employee treatment.

[Insert Table 4 about here]

3.5. Investor horizons versus investor concentration

The results from Tables 2-4 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. In particular, long-term investors are more likely to be blockholders. Since their large ownership stakes are costly to trade, blockholders tend to be long-term investors by necessity. Existing literature indicates that blockholders may also affect corporate decisions (e.g., Cronqvist and Fahlenbrach 2009; Edmans 2009; Holderness 2003). To examine how investor horizons, as opposed to investor concentration, have an impact on employee satisfaction, we split long-

¹⁴ Because KLD variables on employee relations have limited within-firm across time variation, we cannot use a specification with firm fixed-effect, we therefore control for industry*year fixed effects.

term investor ownership into long-term blockholder ownership and long-term non-blockholder ownership. Following Holderness (2003), we classify as blockholders institutional investors that own at least 5% of a firm's shares. Alternatively, we use a less restrictive threshold and classify as blockholders institutional investors that own at least 1% of a firm's shares.

Table 5 presents regressions of employee satisfaction on long-term blockholder ownership and long-term non-blockholder ownership for our two different definitions of blockholders. The results indicate that both subgroups have a positive impact on employee satisfaction. The positive effect of long-term blockholder ownership on employee satisfaction is consistent with the prediction of Edmans (2009) that blockholders encourage managers to invest for long-run growth rather than short-term profits. However, the positive effect of long-term non-blockholder investors highlights that investor horizons have an impact on employee satisfaction, above and beyond the effect of investor concentration.

[Insert Table 5 about here]

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 higher levels of employee satisfaction. In order to mitigate this potential endogeneity issue, 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. 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, size-adjusted number of employees, institutional ownership, long-term ownership, industry, and year to ensure that these firms are comparable¹⁵. Following Rosenbaum and Rubin (1983) and Heckman, Ichimura, and Todd (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 6, Panel A, our results show that entering the Best Companies list does not lead to a significant increase in long-term ownership in the year following their inclusion in the Best Companies list. This is not consistent with long-term investors self-selecting into firms with higher levels 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, Kecskés, and Thesmar (2013) and exploit the insight that indexers are long-term investors that cannot select the firms in which they invest¹⁶. We classify investors as indexers based on Cremers and Petajisto (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, Jenter, and Li 2011). We then split long-term investor ownership into long-term indexer ownership and long-term non-indexer ownership. The

¹⁵ 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.

¹⁶ 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.

results from Table 6, 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 6 about here]

To further address potential endogeneity issues, we conduct two instrumental variable analyses. In our first 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, Marchica, and Mura 2011; John, Litov, and Yeung 2008). Table 6, Panel C, reports the results. The first stage confirms that the yearly industry average is a relevant instrument for investor horizon at the firm level ($67.37 > 8.96$). In the second stage, the instrumental variable estimates confirm the positive effect of long-term investor ownership on employee satisfaction. One potential limit for this first instrument is that some long-term investors may follow industry based portfolio strategy, in which case industry average long-term ownership could not be considered as fully exogenous.

In our second instrumental variable analysis, we exploit the fact that some investors trade more not because of valuation beliefs but to prevent withdrawals. Following Cella, Ellul, and Giannetti (2013), we use two measures of trading performance sensitivity to capture exogenous variations in investor horizon that depend 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, Ellul, and Giannetti (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 Trading Performance Sensitivity 1* and *Average Trading Performance Sensitivity 2*, are then used as instruments for investor horizons at the firm level.

Table 6, Panel D, presents the results from the first and second stages of this instrumental variable analysis. The first stage confirms that *Average Trading Performance Sensitivity 1* and *Average Trading Performance Sensitivity 2* are relevant instruments for investor horizons, measured by the share-weighted average investor portfolio churn ratio as in Cella, Ellul, and Giannetti (2013). According to Stock, Wright and Yogo (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 that the positive effect of investor horizon on employee satisfaction ($p=0.07$).

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

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

4. Conclusion

What determines a firm's ability to provide a satisfying workplace to its employees? Investigating the determinants of employee satisfaction is an important and timely issue that follows naturally from recent literature showing that employee satisfaction generates substantial firm value. The main contribution of this paper is to highlight that the investment horizon of a firm's investors is a strong determinant of the satisfaction of its employees.

Our paper provides new evidence that investor horizons affect corporate policies and, in turn, value creation. While existing empirical evidence documents that long-term investors play a role in deterring managers from pursuing corporate policies that destroy firm value, our results indicate that long-term investors also induce managers to invest for the long-run and in particular in intangibles that bear fruit over a long horizon.

Our findings also 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 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 to 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 that monitor managers more stringently could have a negative impact of CSR.

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Table 1 - Descriptive statistics

<i>VARIABLES</i>	N	mean	sd	p5	p25	p50	p75	p95
<i>EMPLOYEE SATISFACTION</i>	32,621	0.02	0.12	0.00	0.00	0.00	0.00	0.00
<i>EMPLOYEE TREATMENT</i>	11,848	0.24	0.55	0.00	0.00	0.00	0.00	1.00
<i>TOTAL ASSETS</i>	32,621	6,288	51,298	53	211	634	2,188	17,716
<i>SIZE</i>	32,621	6.60	1.74	3.98	5.35	6.45	7.69	9.78
<i>LEVERAGE</i>	32,621	0.21	0.18	0.00	0.04	0.18	0.32	0.56
<i>MARKET-TO-BOOK</i>	32,621	2.84	3.20	0.56	1.19	1.89	3.14	8.29
<i>PROFITABILITY</i>	32,621	0.11	0.11	-0.05	0.04	0.11	0.17	0.27
<i>NUMBER OF EMPLOYEES</i>	32,621	11.46	49.12	0.18	0.72	2.06	7.00	45.20
<i>LABOR INTENSITY</i>	32,621	0.01	0.01	0.00	0.00	0.00	0.01	0.03
<i>INSTITUTIONAL OWNERSHIP</i>	32,621	0.57	0.30	0.07	0.32	0.61	0.81	0.99
<i>LONG-TERM OWNERSHIP</i>	32,621	0.30	0.18	0.04	0.18	0.28	0.40	0.62
<i>LONG-TERM OWNERSHIP 2</i>	32,621	0.17	0.13	0.01	0.06	0.16	0.26	0.40
<i>AVERAGE TURNOVER</i>	32,621	0.45	0.09	0.31	0.39	0.44	0.50	0.59
<i>AVERAGE CHURNRATIO</i>	32,621	1.36	0.21	1.03	1.20	1.34	1.54	1.68
<i>LONG-TERM INDEXER OWNERSHIP</i>	32,621	0.18	0.11	0.02	0.10	0.17	0.24	0.38
<i>LONG-TERM NON-INDEXER OWNERSHIP</i>	32,621	0.12	0.12	0.00	0.03	0.08	0.17	0.36
<i>LONG-TERM BLOCKHOLDER OWNERSHIP 5%</i>	32,621	0.16	0.09	0.01	0.09	0.16	0.22	0.32
<i>LONG-TERM NON-BLOCKHOLDER OWNERSHIP 5%</i>	32,621	0.14	0.16	0.00	0.00	0.10	0.20	0.47
<i>AVERAGE TRADING SENSITIVITY 1</i>	32,273	-0.07	0.10	-0.21	-0.13	-0.07	-0.01	0.11
<i>AVERAGE TRADING SENSITIVITY 2</i>	28,186	-0.18	0.46	-0.85	-0.52	-0.28	0.18	0.53

Table 2 – Investor horizons and employee satisfaction

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 number of shares owned by long-term institutional investors divided by the number of shares owned by institutional investors. *LONG-TERM OWNERSHIP 2* is the number of shares owned by long-term institutional investors divided by firm total shares outstanding. *AVERAGE TURNOVER* is the share-weighted average portfolio turnover of a firm’s institutional investors. *AVERAGE CHURNRATIO* is the share-weighted average portfolio churn ratio of a firm’s 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. *LABOR INTENSITY* 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 clustered by firm. ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

<i>EMPLOYEE SATISFACTION</i>	(1)	(2)	(3)	(4)
<i>LONG-TERM OWNERSHIP</i>	0.233*** (0.062)			
<i>LONG-TERM OWNERSHIP 2</i>		0.412*** (0.126)		
<i>AVERAGE TURNOVER</i>			-0.257*** (0.070)	
<i>AVERAGE CHURNRATIO</i>				-0.199* (0.106)
<i>SIZE</i>	1.665*** (0.584)	1.652*** (0.582)	1.630*** (0.579)	1.671*** (0.580)
<i>LEVERAGE</i>	-0.331* (0.194)	-0.330* (0.194)	-0.347* (0.194)	-0.342* (0.194)
<i>MARKET-TO-BOOK</i>	0.361** (0.164)	0.366** (0.164)	0.381** (0.165)	0.365** (0.164)
<i>NUMBER OF EMPLOYEES</i>	0.105 (0.241)	0.108 (0.241)	0.095 (0.241)	0.092 (0.239)
<i>PROFITABILITY</i>	0.185 (0.146)	0.186 (0.146)	0.195 (0.146)	0.183 (0.146)
<i>INSTITUTIONAL OWNERSHIP</i>	-0.145 (0.176)	-0.416** (0.192)	-0.123 (0.174)	-0.154 (0.173)
Observations	32,621	32,621	32,621	32,621
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Firm cluster	YES	YES	YES	YES
Adj. R ²	0.567	0.567	0.567	0.567

Table 3 - Employee satisfaction and long-term investor ownership: restricted samples

Panel A: Employee satisfaction for S&P 500, S&P 1500, and top market capitalization quartile firms

Panel A shows the number of observations, the number of firms in the Best Companies list in the subsample as a proportion of the number of firms in the Best Companies list in the baseline sample, and the percentage of firms belonging to the Best Companies list for S&P 500 firms, S&P 1500 firms and firms in the top quartile for market capitalization.

	S&P 500 firms	S&P 1500 firms	Firms in the yearly top market capitalization quartile
Number of firm-year observations	5,873	18,056	8,481
Number of firms in the Best Companies list in the subsample as a proportion of the number of firms in the Best Companies list in the baseline sample	73%	94%	86%
Percentage of firms belonging to the Best Companies list	6.27%	2.64%	5.15%

Panel B: Descriptive statistics for Best Companies, whole sample, S&P 500, S&P 1500, and top market capitalization quartile firms

Panel B shows the number of observations and mean values of *LONG-TERM OWNERSHIP*, *SIZE*, *LEVERAGE*, *MARKET-TO-BOOK*, *LABOR INTENSITY*, *PROFITABILITY*, and *INSTITUTIONAL OWNERSHIP* for subsamples of firms in the Best Companies list, in the whole sample, belonging to S&P 500, belonging to S&P 1500, and in the top quartile for market capitalization.

	Best Companies		No restriction		SP500		SP1500		Top quartile for market capitalization	
	<i>Obs.</i>	<i>Mean</i>	<i>Obs.</i>	<i>Mean</i>	<i>Obs.</i>	<i>Mean</i>	<i>Obs.</i>	<i>Mean</i>	<i>Obs.</i>	<i>Mean</i>
<i>LONG-TERM OWNERSHIP</i>	507	0.37	32,64	0.30	5,873	0.37	18,058	0.33	8,479	0.35
<i>SIZE</i>	507	8.69	32,64	6.60	5,873	8.85	18,058	7.30	8,479	8.50
<i>LEVERAGE</i>	507	0.15	32,64	0.21	5,873	0.22	18,058	0.20	8,479	0.22
<i>MARKET-TO-BOOK</i>	507	5.44	32,64	3.91	5,873	5.02	18,058	4.04	8,479	5.55
<i>LABOR INTENSITY</i>	507	0.01	32,64	0.01	5,873	0.00	18,058	0.01	8,479	0.00
<i>PROFITABILITY</i>	507	0.18	32,64	0.10	5,873	0.15	18,058	0.13	8,479	0.14
<i>INSTITUTIONAL OWNERSHIP</i>	507	0.68	32,64	0.57	5,873	0.73	18,058	0.71	8,479	0.72

Panel C: Investor Horizons and Employee satisfaction in restricted samples

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 number of shares owned by long-term institutional investors divided by the number 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. *LABOR INTENSITY* 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. Panel B reports results of our main regression restricting our sample to firms belonging to the S&P 500 (1), firms belonging to the S&P 1,500 (2), and firms in the in the top yearly quartile in terms of market capitalization (3). Standard errors are robust to heteroscedasticity and clustered by firm. ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

<i>EMPLOYEE SATISFACTION</i>	(1) S&P 500	(2) S&P 1500	(3) Top 25% market capitalization
<i>LONG-TERM OWNERSHIP</i>	1.204** (0.586)	0.491*** (0.162)	1.056** (0.424)
<i>SIZE</i>	4.866** (2.145)	2.658*** (0.928)	5.699** (2.229)
<i>LEVERAGE</i>	-1.379 (1.009)	-0.383 (0.323)	-1.236 (0.881)
<i>MARKET-TO-BOOK</i>	0.802 (0.488)	0.618** (0.264)	0.704 (0.474)
<i>LABOR INTENSITY</i>	-2.127 (3.784)	0.186 (0.533)	-1.149 (3.520)
<i>PROFITABILITY</i>	1.258 (0.962)	0.374 (0.275)	1.440* (0.801)
<i>INSTITUTIONAL OWNERSHIP</i>	-0.842 (0.797)	-0.148 (0.285)	0.017 (0.707)
Observations	5,875	18,055	8,474
Year FE	YES	YES	YES
Firm FE	YES	YES	YES
Firm cluster	YES	YES	YES
Adj. R ²	0.578	0.581	0.575

Table 4 – Investor horizon and employee treatment

Ordered probit regressions of *EMPLOYEE TREATMENT*, i.e., sum of the KLD strengths in the area of employee relations, on lagged long-term ownership and control variables. *LONG-TERM OWNERSHIP* is the number of shares owned by long-term institutional investors divided by the number of shares owned by institutional investors. *LONG-TERM OWNERSHIP 2* is the number of shares owned by long-term institutional investors divided by firm total shares outstanding. *AVERAGE TURNOVER* is the share-weighted average portfolio turnover of a firm's institutional investors. *AVERAGE CHURNRATIO* is the share-weighted average portfolio churn ratio of a firm's 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. *LABOR INTENSITY* 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 heteroskedasticity. ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

<i>EMPLOYEE SATISFACTION</i>	(1)	(2)	(3)	(4)
<i>LONG-TERM OWNERSHIP</i>	0.102*** (0.024)			
<i>LONG-TERM OWNERSHIP 2</i>		0.137*** (0.027)		
<i>AVERAGE TURNOVER</i>			-0.119*** (0.025)	
<i>AVERAGE CHURNRATIO</i>				-0.147*** (0.035)
<i>SIZE</i>	0.660*** (0.020)	0.649*** (0.020)	0.645*** (0.021)	0.648*** (0.021)
<i>LEVERAGE</i>	-0.177*** (0.019)	-0.174*** (0.019)	-0.174*** (0.019)	-0.176*** (0.019)
<i>MARKET-TO-BOOK</i>	0.106*** (0.016)	0.107*** (0.016)	0.107*** (0.016)	0.102*** (0.016)
<i>LABOR INTENSITY</i>	-0.113*** (0.035)	-0.117*** (0.035)	-0.120*** (0.036)	-0.114*** (0.035)
<i>PROFITABILITY</i>	0.003 (0.020)	0.002 (0.020)	0.002 (0.020)	0.003 (0.020)
<i>INSTITUTIONAL OWNERSHIP</i>	-0.039 (0.024)	-0.158*** (0.029)	-0.032 (0.024)	-0.044* (0.024)
Observations	11,848	11,848	11,848	11,848
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
Prob > chi2	0	0	0	0
LL	-5640	-5635	-5636	-5639
Pseudo R ²	0.208	0.209	0.209	0.208

Table 5 – Investor horizon vs. investor concentration

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 number of shares owned by long-term institutional investors divided by the number 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. *LABOR INTENSITY* 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 Column 1 and 2, we split *LONG-TERM OWNERSHIP* into *LONG-TERM BLOCKHOLDER OWNERSHIP* and *LONG-TERM NON BLOCKHOLDER OWNERSHIP*. Following Holderness (2003), we classify as blockholders investors which own more than 5% of a firm's shares (alternatively 1%). Standard errors are robust to heteroscedasticity and clustered by firm ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

<i>EMPLOYEE SATISFACTION</i>	(1)	(2)
<i>LONG-TERM NON-BLOCKHOLDER OWNERSHIP 5%</i>	0.571*** (0.175)	
<i>LONG-TERM BLOCKHOLDER OWNERSHIP 5%</i>	0.145** (0.059)	
<i>LONG-TERM NON-BLOCKHOLDER OWNERSHIP 1%</i>		0.659*** (0.211)
<i>LONG-TERM BLOCKHOLDER OWNERSHIP 1%</i>		0.181*** (0.060)
<i>SIZE</i>	1.379** (0.611)	1.299** (0.604)
<i>LEVERAGE</i>	-0.285 (0.195)	-0.278 (0.192)
<i>MARKET-TO-BOOK</i>	0.339** (0.161)	0.338** (0.163)
<i>NUMBER OF EMPLOYEES</i>	0.107 (0.241)	0.094 (0.241)
<i>PROFITABILITY</i>	0.156 (0.143)	0.151 (0.144)
<i>INSTITUTIONAL OWNERSHIP</i>	-0.248 (0.184)	-0.284 (0.190)
Observations	32,621	32,621
Year FE	YES	YES
Firm FE	YES	YES
Firm cluster	YES	YES
Adj. R ²	0.568	0.568

Table 6 - 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 table reports the difference in the variation of long-term investor ownership between year t and year $t+1$ for firms that enter the Best Companies list in 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, labor intensity, 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
Variation in Long-term ownership 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

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. *LABOR INTENSITY* 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. *LONG-TERM INDEXER OWNERSHIP* is the proportion of long-term investors that are also indexers or quasi-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 or quasi-indexers, i.e., have an active share measure superior to 0.30. Standard errors are robust to heteroscedasticity and clustered by firm. ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

<i>EMPLOYEE SATISFACTION</i>	
<i>LONG-TERM INDEXER OWNERSHIP</i>	0.162** (0.074)
<i>LONG-TERM NON-INDEXER OWNERSHIP</i>	0.183*** (0.058)
<i>SIZE</i>	1.663*** (0.585)
<i>LEVERAGE</i>	-0.330* (0.194)
<i>MARKET-TO-BOOK</i>	0.361** (0.164)
<i>LABOR INTENSITY</i>	0.105 (0.241)
<i>PROFITABILITY</i>	0.185 (0.146)
<i>INSTITUTIONAL OWNERSHIP</i>	-0.143 (0.175)
Observations	32,621
Year FE	YES
Firm FE	YES
Firm cluster	YES
Adj. R ²	0.567

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

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 number of shares owned by long-term institutional investors divided by the number 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. *LABOR INTENSITY* 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. We use as instrument the yearly industry (two-digit sic code) average of long-term investor ownership, excluding the firm itself (*INDUSTRY AVERAGE LT OWNERSHIP*). Standard errors are robust to heteroscedasticity and clustered by firm. ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

First Stage		Second Stage	
<i>LONG-TERM OWNERSHIP</i>	(1)	<i>EMPLOYEE SATISFACTION</i>	(2)
<i>INDUSTRY AVERAGE LT OWNERSHIP</i>	0.292*** (0.035)	<i>LONG-TERM OWNERSHIP</i>	3.549** (1.728)
<i>SIZE</i>	0.130*** (0.034)	<i>SIZE</i>	1.255** (0.640)
<i>LEVERAGE</i>	-0.035** (0.013)	<i>LEVERAGE</i>	-0.213 (0.203)
<i>MARKET-TO-BOOK</i>	-0.008 (0.008)	<i>MARKET-TO-BOOK</i>	0.389*** (0.150)
<i>LABOR INTENSITY</i>	-0.005 (0.032)	<i>LABOR INTENSITY</i>	0.116 (0.248)
<i>PROFITABILITY</i>	-0.013 (0.009)	<i>PROFITABILITY</i>	0.237 (0.148)
<i>INSTITUTIONAL OWNERSHIP</i>	-0.123*** (0.018)	<i>INSTITUTIONAL OWNERSHIP</i>	0.261 (0.306)
Observations	31,909		31,909
Year FE	YES		YES
Firm FE	YES		YES
Firm cluster	YES		YES
Test of excluded instruments	67.37*** (0.00)		

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

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 number of shares owned by long-term institutional investors divided by the number 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. *LABOR INTENSITY* 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. We use *AVERAGE TRADING PERFORMANCE SENSITIVITY 1* and *AVERAGE TRADING PERFORMANCE SENSITIVITY 2* as instruments for investor churn ratios (*AVERAGE CHURNRATIO*). Standard errors are robust to heteroscedasticity and clustered by firm. ***, **, 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. 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. Detailed definitions of all the variables are in the Appendix.

First Stage		Second Stage	
<i>AVERAGE CHURNRATIO</i>	(1)	<i>EMPLOYEE SATISFACTION</i>	(2)
<i>AVERAGE TRADING PERFORMANCE SENSITIVITY 1</i>	0.261*** (0.075)	<i>AVERAGE CHURNRATIO</i>	-3.513* (1.961)
<i>AVERAGE TRADING PERFORMANCE SENSITIVITY 2</i>	0.013*** (0.003)		
<i>SIZE</i>	-0.121*** (0.017)	<i>SIZE</i>	1.174*** (0.432)
<i>LEVERAGE</i>	-0.009 (0.006)	<i>LEVERAGE</i>	-0.295** (0.119)
<i>MARKET-TO-BOOK</i>	0.020*** (0.005)	<i>MARKET-TO-BOOK</i>	0.435*** (0.133)
<i>LABOR INTENSITY</i>	-0.031** (0.014)	<i>LABOR INTENSITY</i>	-0.106 (0.186)
<i>PROFITABILITY</i>	0.014** (0.006)	<i>PROFITABILITY</i>	0.139 (0.107)
<i>INSTITUTIONAL OWNERSHIP</i>	0.109*** (0.008)	<i>INSTITUTIONAL OWNERSHIP</i>	-0.223 (0.254)
Observations	27,103		27,103
Year FE	YES		YES
Firm FE	YES		YES
Firm cluster	YES		YES
Test of excluded instruments	13.43*** (0.00)		

Appendix: Variable definition

Variable	Definition
Firm Ownership Variables	
<i>INSTITUTIONAL OWNERSHIP</i>	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.
<i>LONG-TERM OWNERSHIP</i>	Number of shares held by long-term institutional investors scaled by the number of shares held by institutional investors. Following Derrien et al. (2013), we define long-term investors as institutional investors with a portfolio turnover of 35% or less.
<i>LONG-TERM OWNERSHIP 2</i>	Number of shares held by long-term institutional investors scaled by the firm's total number of shares outstanding. Following Derrien et al. (2013), we define long-term investors as institutional investors with a portfolio turnover of 35% or less.
<i>AVERAGE TURNOVER</i>	The share-weighted average of the portfolio turnovers of a firm's institutional investors. Portfolio turnovers are computed following Derrien et al. (2013).
<i>AVERAGE CHURNRATIO</i>	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) and Gaspar et al. (2005).
<i>LONG-TERM INDEXER OWNERSHIP</i>	Ownership by long-term investors, which are also indexers or quasi-indexers. We classify investors as indexers based on Cremers and Petajisto (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.
<i>LONG-TERM NON-INDEXER OWNERSHIP</i>	Ownership by long-term investors, which are not indexers or quasi-indexers.
<i>LONG-TERM BLOCKHOLDER OWNERSHIP 1%</i>	Ownership by long-term investors, which are also blockholders (ownership >1 %).
<i>LONG-TERM NON-BLOCKHOLDER OWNERSHIP 1%</i>	Ownership by long-term investors, which are not blockholders (ownership <1 %).
<i>LONG-TERM BLOCKHOLDER OWNERSHIP 5%</i>	Ownership by long-term investors, which are also blockholders (ownership >5 %).
<i>LONG-TERM NON-BLOCKHOLDER OWNERSHIP 5%</i>	Ownership by long-term investors, which are not blockholders (ownership <5 %).
Other Firm Variables	
<i>EMPLOYEE SATISFACTION</i>	Dummy variable that equals to one if a firm is included in the list of the "Best Companies to Work in America"
<i>EMPLOYEE TREATMENT</i>	Sum of the KLD strengths in the area of employee relations.
<i>SIZE</i>	Natural logarithm of firm total assets (<i>at</i>).
<i>LEVERAGE</i>	Short-term (<i>dltc</i>) and long-term debt (<i>dltt</i>) divided by firm total assets (<i>at</i>).
<i>MARKET-TO-BOOK</i>	Market value of equity (<i>mkvalt</i>) divided by the book value of common equity (<i>ceq</i>) of the firm.
<i>LABOR INTENSITY</i>	Number of employees (<i>emp</i>) scaled by firm total assets (<i>at</i>).
<i>PROFITABILITY</i>	Earnings before interest, taxes, depreciation and amortization (<i>ebitda</i>) over total assets (<i>at</i>).
Instruments	
<i>INDUSTRY AVERAGE LT OWNERSHIP</i>	Yearly industry (two-digit sic code) average of long-term investor ownership, excluding the firm itself.
<i>AVERAGE TRADING PERFORMANCE SENSITIVITY 1</i>	The investor correlation between quarter <i>t-1</i> portfolio performance and quarter <i>t</i> client withdrawals over the last 20 quarters for all the investors holding stocks in firm <i>j</i> using as weights the number of shares held by each investor <i>i</i> in firm <i>j</i> (see Cella et al. 2013).

AVERAGE TRADING PERFORMANCE SENSITIVITY 2

The investor correlation between quarter $t-1$ portfolio performance and quarter t client withdrawals 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, IBES and CRPS data by their name.