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ABSTRACT

We study the relationship between employee satisfaction and abnormal stock returns around the world, using lists of the "Best Companies to Work For" in 14 countries. We show that employee satisfaction is associated with positive abnormal returns in countries with high labor market flexibility, such as the U.S. and U.K., but not in countries with low labor market flexibility, such as Germany. These results are consistent with high employee satisfaction being a valuable tool for recruitment, retention, and motivation in flexible labor markets, where firms face fewer constraints on hiring and firing. In contrast, in regulated labor markets, legislation already provides minimum standards for worker welfare and so additional expenditure may exhibit diminishing returns. The results have implications for the differential profitability of socially responsible investing ("SRI") strategies around the world. In particular, they emphasize the importance of taking institutional features into account when forming such strategies.

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This paper studies the relationship between employee satisfaction and stock returns around the world. Theory provides conflicting predictions as to whether employee satisfaction is beneficial or harmful to firm value. On the one hand, employee welfare can be a valuable tool for recruitment, retention, and motivation. For the typical 20th-century firm, the bulk of its value stemmed from its physical capital. In contrast, most modern firms' key assets are their workers – not only senior management, but also rank-and-file employees. For example, in knowledge-based industries such as software, pharmaceuticals, and financial services, non-managerial employees engage in product development and innovation, and build relationships with customers and suppliers, and mentor subordinates. Employee-friendly policies can attract high-quality workers to a firm and ensure that they remain within the firm, to form a source of sustainable competitive advantage.

Relatedly, employee satisfaction can be a valuable motivational tool. In traditional manufacturing firms, motivation was simple because workers' output could be easily measured, allowing the use of monetary "piece rates" (Taylor (1911)). In the modern firm, workers' tasks are increasingly difficult to quantify, such as innovation or building client relationships. The reduced effectiveness of extrinsic motivators increases the role for intrinsic motivators such as satisfaction. This role is microfounded in both economics and sociology. The efficiency wage theory of Akerlof and Yellen (1986) argues that employees view a positive working environment as a "gift" from the firm and respond with a "gift" of increased effort (Akerlof (1982)). Sociological theories argue that satisfied employees identify with the firm and internalize its objectives, thus inducing effort (McGregor (1960)).

On the other hand, employee satisfaction can represent wasteful expenditure by management. Taylor (1911) argued that workers should be treated like any input – management's goal is to extract maximum output from them while minimizing their cost. Under this view, satisfaction is an indicator that employees are overpaid or underworked, both of which reduce firm value. Indeed,

agency problems may lead to managers tolerating insufficient effort and/or excessive pay, at shareholders' expense. The manager may enjoy more pleasant relationships with his subordinates by not holding them down to their reservation utility (Jensen and Meckling (1976)). Alternatively, high wages may constitute a takeover defense, as modeled by Pagano and Volpin (2005a). Cronqvist et al. (2009) find that salaries are higher when managers are more entrenched, which supports the view that high worker pay is inefficient.

The relative importance of the above costs and benefits will depend on the institutional context. In flexible labor markets, firms face fewer restrictions on the contracts they can offer. When hiring constraints are weaker, the recruitment benefits of employee satisfaction are stronger. Since one's rivals also face few hiring constraints, the retention benefits of employee satisfaction are also more important. Flexible labor markets also feature fewer firing constraints. Since it is easier for firms to dismiss underperforming workers and replace them with superior ones, the recruitment benefits of employee satisfaction are again greater. In addition, the greater risk of firing means that employees invest in general rather than firm-specific skills, which also increases their ability to be recruited elsewhere (Hall and Soskice (2001), Thelen (2001)). Separately, the motivational benefits are also likely higher. Under the efficiency wage theory of Shapiro and Stiglitz (1984), workers exert effort to avoid being fired from a satisfying job, and thus employee satisfaction has greater motivational impact when the likelihood of firing is stronger. The motivational effect of employee satisfaction may be particularly important for rank-and-file employees, who are harder to incentivize with equity since they individually have a small effect on firm value.

In regulated labor markets, hiring and firing are harder, and thus the recruitment, retention, and motivational benefits are lower. In addition, expenditure on employee satisfaction is likely to exhibit diminishing marginal returns. When labor market regulations already ensure a minimum

level of worker welfare, companies with high satisfaction relative to their peers may be exceeding the optimal level: the marginal benefit of their expenditure may not justify its cost.

Edmans (2011, 2012) shows that companies with high employee satisfaction, as measured by inclusion in the list of the "100 Best Companies to Work For in America", outperform their peers by 2-3% per year. The use of stock returns (rather than, say, accounting performance or Tobin's Q) as the dependent variable mitigates concerns that causality runs from firm performance to employee satisfaction, since any publicly-observed performance measure should already be incorporated into the stock price at the start of the return compounding window. These results suggest that satisfaction is positively correlated with firm value and that these benefits are not immediately capitalized by the market. However, these papers only study the U.S. – a country with particularly flexible labor markets – and so the external validity of their results is limited. It is unclear whether these results are generalizable to other countries, especially those with less flexible labor markets.

This paper addresses this open question. We study the link between employee satisfaction and stock returns in 14 countries around the world, and investigate how this relationship depends on the country's level of labor market flexibility. The list of the "100 Best Companies to Work For in America" is published by the Great Place to Work® Institute in San Francisco. The Institute produces similar Best Companies ("BC") lists in more than 45 countries, of which 15 have at least 10 publicly traded BCs. We use two measures of country-level labor market flexibility, which are available for 14 of these 15 countries. The first measure is the OECD Employment Protection Legislation ("EPL") index, also used by Pagano and Volpin (2005b) and Simintzi, Vig, and Volpin (2014). The second is the labor market flexibility categories of the Fraser Institute's Economic Freedom of the World index, also used by Bernal-Verdugo, Furceri, and Guillaume (2012a, 2012b), Freeman, Kruse, and Blasi (2008), and Haltiwanger, Scarpetta, and Schweiger (2008).

We find that the alphas documented by Edmans (2011, 2012) for the U.S. are not anomalous in a global context. An equal-weighted BC portfolio generates a Carhart (1997) 4-factor monthly alpha of 22 basis points in the U.S. from 1998-2013, statistically significant at the 1% level. This alpha is only the 10th highest out of the 14 countries that we study. High returns to Best Companies are not limited to the U.S., although the alphas for most other countries are not statistically significant due to the smaller sample size. For example, the monthly alpha is 77 basis points in Japan from 2007-2013 and (an insignificant) 81 basis points in the U.K. from 2001-2013. (The different time periods reflect the different years in which the BC list was initiated). However, we also document significant heterogeneity across countries. For example, Germany exhibits an insignificantly negative alpha of 45 basis points. Thus, while the previously-documented results generally hold out of sample, they do not extend to every country.

We next show that the abnormal returns to the BCs are significantly increasing in their country's labor market flexibility, using both measures. We conduct a pooled panel regression controlling for other firm-level determinants of stock returns identified by Brennan, Chordia, and Subrahmanyam (1998), such as size, book-to-market, dividend yield, past returns, trading volume, and the stock price. To ensure that our labor market flexibility measure is not simply proxying for other differences between countries, we control for other country-level variables such as the rule of law, size of the capital market, and the existence of one-share-one-vote (all from La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997)), GDP growth, and the anti-director rights index of Spamann (2010). We find that, a one standard deviation decrease in the EPL measure is associated with a 0.49% higher market-adjusted monthly return to being a BC. Similarly, a one standard deviation increase in the EFW measure is associated with a 0.67% higher market-adjusted monthly return to being a BC. The results are similar using a Fama-MacBeth (1973) analysis.

Overall, our results suggest that the association between employee satisfaction and stock returns depends critically on the institutional context. These results have important implications for both managers and investors. Starting with the former, even if the Edmans (2011, 2012) results can be interpreted as causal, they do not suggest that managers should necessarily increase expenditure on employee-friendly programs in countries with low labor market flexibility. Moving to the latter, it suggests that investors can only expect to earn alpha from investing in firms with high employee satisfaction in countries with high labor market flexibility.

This paper contributes to a number of literatures. First, it builds on the literature linking various measures of employee welfare to various measures of firm performance. Abowd (1989) shows that announcements of pay increases reduce market valuations dollar-for-dollar, Diltz (1995) finds that stock returns are uncorrelated with the Council of Economic Priorities minority management and women in management variables, and negatively correlated with family benefits, and Dhrymes (1998) find no relationship with KLD's employee relations variable. In contrast, Edmans (2011, 2012) documents a positive relationship employee satisfaction and stock returns. However, the above studies only analyze the U.S. Given the importance of labor market institutions, it is unclear whether these relationships generalize more widely.

Second, since employee welfare is frequently used as a screen by socially responsible investors (Renneboog, Ter Horst, and Zhang (2008a, 2011)), this paper contributes to research on the link between socially responsible investing ("SRI") and investor returns. This literature has mixed results. Hamilton, Jo and Statman (1993), Kurtz and DiBartolomeo (1996), Guerard (1997), Bauer, Koedijk, and Otten (2005), Schröder (2007), and Statman and Glushkov (2009) find no or a mixed relationship between various SRI screens and investment returns; Geczy, Stambaugh, and Levin (2005), Brammer, Brooks, and Pavelin (2006), Renneboog, Ter Horst, and Zhang (2008b), and Hong and Kacperczyk (2009) find a negative relationship; and Moskowitz (1972), Luck and Pilotte

(1993), Derwall et al. (2005), and Edmans (2011, 2012) find a positive link. All of the above studies focus on U.S. data and their generalizability to other countries is again unclear. In particular, the value of various forms of Corporate Social Responsibility ("CSR") – employee welfare, gender diversity, animal rights, environmental protection, and whether the firm is in a "sin" industry (such as tobacco, alcohol, and gambling) – likely depends on the institutional context, such as regulations and cultural norms. To our knowledge, this is the first paper to study the investment performance of a SRI screen in a global context.[1]

Finally, this paper adds to the literature comparing the performance of investment strategies across countries. Asness, Moskowitz, and Pedersen (2013) find that value strategies are profitable not only in the U.S., but also in the U.K., continental Europe, and Japan. Momentum strategies are profitable in the first three regions, but not Japan. Chui, Titman, and Wei (2010) argue that cultural factors explain the differential profitability of momentum strategies across countries: in particular, countries with greater individualism exhibit higher momentum profits.

This paper is organized as follows. Section 1 develops our hypotheses and Section 2 describes the data. Section 3 studies the abnormal returns to the BCs across different countries. Section 4 presents the core results of our paper, relating these abnormal returns to measures of labor market flexibility. Section 5 concludes.

1. Hypothesis development

We first discuss whether we should expect to find any long-run abnormal returns to the Best Companies lists at all, either positive or negative. Our return compounding window starts at the beginning of the month after list publication. Thus, since these lists are public, we should find no

[1] Ioannou and Serafeim (2012) and Cheng, Ioannou, and Serafeim (2014) study the determinants and consequences of corporate social responsibility in a cross-country context, but do not investigate stock returns.

abnormal returns if the market is semi-strong efficient. Regardless of the institutional context, and thus regardless of the direction of the link (if any) between employee welfare and firm value, the positive or negative value of list inclusion should be capitalized by the market before the start of the return compounding window.

However, there is significant prior evidence that intangible assets are not fully priced by the stock market. Firms with high R&D as measured by expenditure (Chan, Lakonishok, and Sougiannis (2001); Lev and Sougiannis (1996)), advertising as measured by expenditure (Chan, Lakonishok, and Sougiannis (2001), patent quality as measured by citations (Deng, Lev, and Narin (1999)), and software quality as measured by development costs (Aboody and Lev (1998)) all earn higher long-run returns. Consistent with these findings, Edmans (2011, 2012) documents that Best Companies in the U.S. outperform their peers by 2-3% per year, and that the value of list inclusion is not fully capitalized by the market until 4-5 years later. Indeed, equity analysts systematically under-predict the earnings announcements of these companies.

Thus, it is reasonable to hypothesize that the value of employee satisfaction will not be fully capitalized by the stock market immediately upon list inclusion, and thus that there will be long-horizon returns.[2] We now discuss our hypothesis for whether this value will be positive or negative, and why it may depend on a country's level of labor market flexibility. Employee satisfaction has both benefits and costs. Starting with the benefits, worker welfare is likely to improve recruitment, retention, and motivation. For the reasons discussed in the introduction, these benefits are likely to be particularly strong in countries with flexible labor markets, in which hiring and firing are easier. Thus, in such countries, we hypothesize that expenditure on employee welfare is a value-creating investment that is underappreciated by the market.

[2] An alternative channel through which list inclusion can lead to long-run stock returns is through attracting demand from socially responsible investors. Edmans (2011) estimates this effect for the U.S. and found it to be very small compared to the magnitude of the abnormal returns.

However, as with any investment, the returns are likely decreasing. In regulated labor markets, regulations already impose a floor on worker welfare, leading to a downward movement along the marginal benefit curve. In addition, due to the increased restrictions in hiring and firing, labor mobility is less frequent and so the recruitment, retention, and motivational benefits are likely smaller, causing a downward shift in the marginal benefit curve. Both of these forces reduce the marginal benefit of further expenditure on worker welfare, potentially below its marginal cost. Indeed, firms may spend excessively on employee satisfaction due to an agency problem. The theory of Pagano and Volpin (2005a) argues that employee benefits such as high wages can be used as a takeover defense. Simintzi, Vig, and Volpin (2014) find employment protection increases labor costs and reduces firms' profitability. Cronqvist et al. (2009) show that entrenched managers pay their employees more. Similarly, countries with regulated labor markets tend to have more powerful labor unions (see, e.g., Nickell (1997)) – indeed, centralized collective bargaining is a component of the labor market flexibility categories of the Economic Freedom of the World database. Thus, high employee satisfaction may result from the influence of labor unions, rather being in shareholders' interest. Gorton and Schmid (2004) find that, when labor has a voice in corporate governance, profitability and valuation are lower. Chen, Kacperczyk, and Ortiz-Molina (2011) hypothesize that labor unions protect wages in a downturn, and find that they increase a firm's operating leverage and cost of equity. Unions also protect underperforming managers and reduce a firm's value (Atanassov and Kim (2009), Lee and Mas (2012)).

As a result, we predict that the BCs generate positive abnormal returns in countries with high labor market flexibility, and that the returns to list inclusion decrease with labor market flexibility.

2. Data and summary statistics

2.1. Measures of employee satisfaction

Our main data source is the Best Companies lists compiled by the Great Place to Work® Institute. The first list focused on U.S. companies and was published in a 1984 book entitled the "The 100 Best Companies to Work for in America", which was later updated in 1993; from 1998 onwards it has been published every January in *Fortune* magazine. Two-thirds of the score comes from a 57-question survey that the Institute administers to 250 employees randomly selected in each firm. The remaining one-third comes from the Institute's evaluation of factors such as a company's demographic makeup, pay and benefits programs, and culture. The companies are scored in four areas: credibility (communication to employees), respect (opportunities and benefits), fairness (compensation, diversity), and pride/camaraderie (teamwork, philanthropy, celebrations), and the top 100 firms are publicly announced in rank order. According to the Institute, a Great Place to Work is a place in which "you can trust people you work for, have pride in what you do, and enjoy the people you work with". The list is highly regarded as a thorough measure of employee satisfaction, receiving significant attention from shareholders, management, employees and the media, and has since been extended to more than 45 countries around the world.

We include countries with more than five years' history of BC listings, and exclude those where firm-level stock return and accounting data are unavailable, e.g. Colombia, Ecuador, Uruguay, and Venezuela. For each country, we only include BCs that are both headquartered and publicly listed in that country. Table 1 describes the 14 countries that have data on labor market flexibility (which we will describe in Section 2.2) and where at least 10 BCs are headquartered and publicly listed. Column (1) shows the start year of BC listings for each country. The numbers of public BCs per country are reported in column (3). Since the earliest start year for a non-U.S. country is 1998 (for Brazil), our sample period is from February 1998 to December 2013, although we will also study the U.S. from February 1984 to December 2013 to verify comparability with Edmans (2011, 2012).

To form BC portfolios, we use the beginning of the month immediately after the latest publication date of lists for each country as our portfolio formation date. For example, the U.S. list is typically published in mid-January, and so we use February 1 as the portfolio formation date. Thus, our analyses are joint tests of the value of employee satisfaction and the extent to which this value is immediately capitalized by the market. The constituents of BC portfolios are rebalanced once a year on the same day. Column (2) reports the portfolio formation dates for each country.

For the U.K. and U.S., the number of firms in the list has remained constant over time. For the other countries, this number has increased over time – for example, the first list in Germany (in 2003) contains 50 firms, while in 2013 it contains 100. Column (6) of Table 1 indicates the number of BCs selected in the initial list and the 2013 list for each country.

2.2. Measures of labor market flexibility

We use two measures of labor market flexibility. The first is the OECD's Employment Protection Legislation ("EPL") index, which is available for 34 OECD and 9 emerging countries. The index measures the procedures involved in hiring workers on either fixed-term or temporary contracts, and the procedures and costs involved in dismissing individuals and groups of workers. The index is based on statutory laws, collective bargaining agreements, case law, contributions from OECD member countries, and experts' advice from each country. It has three components:

Individual dismissal of workers with regular contracts (category EPR) measures three aspects of dismissal protection: (i) procedural inconveniences of the dismissal process faced by employers, such as notification and consultation requirements; (ii) length of notice periods and conditions of severance pay; and (iii) difficulty of dismissal, such as the circumstances under which a dismissal can be made possible, and repercussions for the employer if an unfair dismissal is discovered.

Additional costs for collective dismissals (category EPC) measures the extra costs faced by employers when they dismiss several workers simultaneously, over and above the costs applicable for individual dismissals.

Regulation of temporary contracts (category EPT) measures regulations for fixed-term and temporary work contracts in terms of job type and duration, requirements for such workers to receive equal pay and working conditions to permanent employees, and regulations for the setup and operations of work agencies.

The first two measures capture the ease of dismissal. As mentioned in the introduction, fewer constraints on firing increase the motivational benefits of employee satisfaction (as workers will exert greater effort to avoid being fired from a satisfying job), and also its recruitment benefits (since the ease of firing raises the number of vacancies the firm can create). The third measure captures constraints on hiring, which reduce the recruitment benefits of employee satisfaction. Separately, regulations on hiring and firing impose a minimum level of employee welfare, leading to a downward movement along the marginal benefit curve for expenditure on employee satisfaction. Thus, in regulated labor markets, firms with high satisfaction relative to their peers may be operating in the region in which the marginal benefit does not justify the cost.

The EPL index has been used in Pagano and Volpin (2005b) and Simintzi, Vig, and Volpin (2014). Following both papers, we calculate *EPL* as the average of the three sub-indicators' scores; high EPL implies low labor market flexibility.[3] Column (1) of Table 1, Panel B reports the time series mean of *EPL* for each country from 1998-2013, and columns (2)-(4) of report the time series mean of each index. As a rough check that our EPL measure is linked to labor mobility, and thus the retention and recruitment benefits of employee satisfaction, we were able to collect data on

[3] The OECD reports EPL as a weighted average of the three broad categories, where the weights depend on the number of sub-indicators in each group. Our results are robust to this weighted measure of EPL.

labor turnover rates for seven countries in our sample from the OECD. Their correlation with our employment protection legislation index is -0.73. Similarly, the labor economics literature shows that employment protection is negatively associated with labor turnover (Bertola (1999), Autor, Kerr, and Kugler (2007), Messina and Vallanti (2007), OECD (2013)).

Our second measure of labor market flexibility is calculated based on data from the Fraser Institute's Economic Freedom of the World ("EFW") database. The database contains indices on labor market flexibility, which are also used by labor economics studies such as Bernal-Verdugo, Furceri, and Guillaume (2012a, 2012b), Freeman, Kruse, and Blasi (2008), and Haltiwanger, Scarpetta, and Schweiger (2008). The indices have been referred as a comprehensive measure of the "de facto strictness of labor regulations" (Feldmann (2009)). We use the EFW indices across six policy categories. All indices are standardized on a 0-10 scale, with higher values indicating more flexible labor markets:

Hiring regulations and minimum wage (category 5Bi) is based on the World Bank's Doing Business Difficulty of Hiring Index. The index measures three areas: (i) whether fixed-term contracts are prohibited for permanent tasks; (ii) the maximum cumulative duration of fixed-term contracts; and (iii) the ratio of the minimum wage for a trainee or first-time employee to the average value added per worker.

Hiring and firing regulations (category 5Bii) is derived from the World Economic Forum's Global Competitiveness Report's survey question "How would you characterize the hiring and firing of workers in your country?" Respondents assign a score from 1 ("impeded by regulations") to 7 ("flexibly determined by employers") which are then standardized onto a 0-10 scale.

Centralized collective bargaining (category 5Biii) is based on the World Economic Forum's Global Competitiveness Report's survey question "How are wages generally set in your country?".

Respondents assign a score from 1 ("by a centralized bargaining process by regulations") to 7 ("up to each individual company") which are then standardized onto a 0-10 scale.

Hours regulations (category 5Biv, previously called "mandated cost of hiring a worker") is based on the World Bank's Doing Business Rigidity of Hours Index, which measures (i) whether there are restrictions on night work; (ii) whether there are restrictions on weekly holiday work; (iii) whether the work-week can consist of 5.5 days; (iv) whether the work-week can extend to 50 hours or more (including overtime) for 2 months a year to respond to a seasonal increase in production; and (v) whether paid annual vacation is 21 working days or fewer.

Mandated cost of worker dismissal (category 5Bv) is based on the World Bank's Doing Business data. It includes the cost of the advance notice requirements, severance payments, and penalties due when dismissing a redundant worker.

Conscription (category 5Bvi) is based on the use and duration of military conscription. Lower ratings of labor market flexibility are assigned to countries with longer conscription periods. Columns (6)-(11) of Table 1, Panel B report the time series mean of each index across the sample period.

Categories 5Bi, 5Bii and 5Biv capture the ease of hiring (similar to category EPT in the EPL index, although the latter focuses on temporary contracts), and category 5Bv captures the ease of firing (similar to categories EPR and EPC in the EPL index). Category 5Biii measures the power of labor unions. Labor unions impose restrictions on contracts which hinder both hiring and firing, and may press for higher employee satisfaction even if not in shareholders interest. Category 5Bvi captures a regulatory intervention to the supply-side. Where conscription is greater, the recruitment benefits of employee satisfaction are smaller since individuals have less freedom to join firms.

The current form of the EFW data is available annually from 2002 to 2013.[4] We construct a composite measure of labor market flexibility (*EFW*) that equals the average of the six indices in each country-year. Column (5) of Table 1, Panel B reports the mean of the composite indicator for each country.

3. Empirical results

3.1. Country-level alphas

We first calculate the Carhart (1997) four-factor alphas to the BC portfolios in each country:

$$R_{ct} = \alpha + \beta_{MKT} MKT_{ct} + \beta_{HML} HML_{ct} + \beta_{SMB} SMB_{ct} + \beta_{MOM} MOM_{ct} + \varepsilon_{ct} \quad (1)$$

where R_{ct} is the U.S. dollar returns to a BC portfolio (either equal-weighted or value-weighted) in month t for country c in excess of the U.S. one-month treasury rate. Stock returns are taken from the Center for Research in Security Prices ("CRSP") for U.S. firms and Datastream for other firms. Both active and inactive firms are included to avoid survivorship bias. We winsorize stock returns at the 0.5% and 99.5% level in each country. Results are very similar without winsorization.

α is an intercept that captures the abnormal risk-adjusted return. MKT_{ct}, HML_{ct}, SMB_{ct}, and MOM_{ct}, are, respectively, the Fama and French (2012) regional factors on market, value, size, and momentum, collected from Kenneth French's website. We use the Europe factors for all European countries, the North American factors for Brazil, Chile, Canada and the U.S., the Japan factors for Japan, and the Asia-Pacific Excluding Japan factors for Korea and India.

[4] The EFW also provided labor market flexibility data in 2000 and 2001 but on different components, which are not comparable to the data from 2002 onwards.

ε_{ct} is an error term. Standard errors are corrected for heteroscedasticity and autocorrelation using Newey-West's (1987) estimator with four lags.

Table 2 reports results for equal-weighted portfolios. Three of the 14 countries (Denmark, Germany, and Greece) have insignificantly negative alphas. The remaining 11 countries have positive alphas, which are significant at the 10% level or better for Chile, Japan, Sweden, and the U.S. In terms of economic significance, the U.S. has the tenth highest alpha out of the fourteen countries, suggesting that it is not an outlier. Table 3 reports results for value-weighted portfolios. Denmark, France, Germany, and Greece have negative alphas, with Denmark's being significant at the 10% level. The alphas for Chile, the U.K., and the U.S., are significantly positive at the 10% level or better.

3.2. Characteristics controls

While Section 3.1 controls for the BCs' covariance with risk factors, this section controls for firm characteristics that may also affect stock returns. We first run the following pooled panel regression across all firms (both BCs and non-BCs) within a country, at the firm-month level:

$$R_{it} = \alpha_0 + \alpha_1 BC_{it} + \alpha_2 FirmControls_{it} + \alpha_3 FE_t + \varepsilon_{it} \quad (2)$$

R_{it} is the return on stock *i* in month *t*. BC_{it} is a dummy variable that equals one if firm *i* was included in the most recent BC list prior to month *t*, and zero otherwise. $FirmControls_{it}$ include the control variables used in Brennan, Chordia, and Subrahmanyam (1998), calculated using CRSP and Compustat for U.S. firms and Datastream and Worldscope for non-U.S. firms. *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*.

RET2-3 is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. FE_t are month fixed effects to control for macroeconomic cycles. Standard errors are clustered by firm.

Results for each country are reported in Table 4. The coefficient on the *BC* dummy is significantly positive for Canada, Chile, Greece, India, Japan, Korea, and the U.S. For example, in the U.S., being a BC is associated with an additional monthly return of 28 basis points. Denmark, Finland, France, Germany, and Sweden have insignificantly negative coefficients on the *BC* dummy.

We next run Fama-MacBeth (1973) cross-sectional regressions for each country in a given month *t*:

$$R_i = \alpha_0 + \alpha_1 BC_i + \alpha_2 FirmControls_i + \varepsilon_i \qquad (3)$$

where R_i is the return on stock i. BC_i is a dummy variable that equals one if firm i has been included in the most recent BC list, and zero otherwise. $FirmControls_i$ include the control variables used in Brennan, Chordia, and Subrahmanyam (1998). Standard errors are adjusted for heteroscedasticity and autocorrelation using Newey-West's (1987) estimator with four lags. We then take the time-series average of the monthly coefficients for each country. While the pooled panel regression weights each firm-month observation equally, the Fama-MacBeth (1973) approach weights each month equally.

Results for each country are reported in Table 5. Consistent with prior results, the *BC* coefficient is significantly positive at the 5% level or better in Canada, India, Japan, Korea, and the U.K. The coefficients are negative and insignificant for Denmark, Finland, Germany, and Greece. Overall, the results suggest that the positive returns to Best Companies in the U.S. do extend to

other countries, but there is significant heterogeneity between countries. In the next section, we study how this heterogeneity is related to labor market flexibility.

4. The role of labor market flexibility

This section examines how the relationship between employee satisfaction and stock returns depends on the degree of labor market flexibility. Holderness (2014a, 2014b) argues that international empirical analyses should be conducted at the firm level, rather than at the country level, as the latter approach ignores between-firm, within-country variation. In our context, using country averages (e.g. regressing country-level alpha on labor market flexibility) will ignore other firm-specific determinants of stock returns. We thus study the impact of labor market flexibility using firm-level analyses that take into account firm characteristics.

We start by enhancing the pooled panel regression in equation (2) with measures of labor market flexibility and country-level controls, and estimating it across the full sample of all countries:

$$\begin{aligned} Return_{cit} = {} & \beta_0 + \beta_1 BC_{cit} + \beta_2 BC_{cit} \times EPL_{ct}\,(EFW_{ct}) + \beta_3 BC_{cit} \times CountryControls_{ct} \\ & + \delta_1 EPL_{ct}(EFW_{ct}) + \delta_2\, CountryControls_{ct} + \delta_3\, FirmControls_{cit-2} + \delta_4\, FE_t \\ & + \varepsilon_{cit} \qquad (4) \end{aligned}$$

where $Return_{cit}$ is either the raw return (R_{cit}) or the market-adjusted return (i.e. the raw return in excess of the market return) for firm i in country c in month t.[5] EPL_{ct} is the employment protection legislation indicator for country c in month t and EFW_{ct} is the labor market flexibility indicator. To

[5] We also use the abnormal return (AR_{cit}) for firm i in country c at month t as the dependent variable. AR_{cit} is calculated as the CAPM-adjusted abnormal return using either a 5- or 3-year rolling-window beta. Results are similar.

ensure that our *EPL* and *EFW* variables are not simply proxying for other country-level differences, we include $CountryControls_{ct}$, a vector of other country-level control variables: $RuleofLaw_c$ measures the rule of law from La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997); $Gdpg_{ct}$ measures GDP growth for country *c* in month *t* taken from the World Bank; $SoCM_c$ measures the size of capital market, specifically the number of listed domestic firms per (million) capita from La Porta et al. (1997); $ADRI_c$ measures the anti-director rights index corrected by Spamann (2010); and $OSOV_c$ measures the presence of one-share one-vote from La Porta et al. (1997). In particular, the returns to Best Companies capture not only the value of employee satisfaction, but the extent to which this value is not immediately capitalized by the market. Thus, we include a control for the size of the capital market as a proxy for market efficiency. Standard errors are clustered by firm.

Panel A of Table 6 presents the results using *EPL* as the measure of labor market flexibility. Columns (1) – (3) use raw returns as the dependent variable. In column (1), which contains no measures of labor market flexibility or country controls, *BC* has a positive coefficient of 0.760, which is significant at the 1% level. However, in column (3) when interactions with *EPL* and the country controls are added, the coefficient on *BC* is no longer significant. Instead, the coefficient on *BC*EPL* is a significantly negative -0.693. Thus, BCs are not associated with higher returns on average, but only in countries with weak employment protection legislation. Columns (4) – (6) use the market-adjusted return (i.e. the raw return minus the market return) as the dependent variable. The results are slightly stronger, with the coefficient on *BC*EPL* falling to -0.790. A one standard deviation decrease in *EPL* is associated with a 0.49% increase in the monthly market-adjusted return to being a BC.

Panel B presents the results using *EFW* as the measure of labor market flexibility, which are similar to Panel A. For both raw returns and market-adjusted returns in columns (3) and (6), the coefficient on *BC* is insignificant, but the coefficient on *BC*EFW* is positive and significant at the

1% level. For example, the coefficient of 0.394 in column (6) indicates that a one standard deviation increase in *EFW* is associated with a 0.67% increase in the monthly market-adjusted return to being a BC.

Table 7 presents the results of Fama-MacBeth cross-sectional regressions for the full sample, which includes country-level controls and measures of labor market flexibility. The results are very similar to Table 6, with the coefficients on *BC*EPL* being significantly negative and those on *BC*EFW* being significantly positive.

5. Conclusions

This paper studies how the relationship between employee satisfaction and stock returns depends critically on the level of a country's labor market flexibility. The alphas documented by Edmans (2011, 2012) for the U.S. are not anomalous in a global context, in terms of economic significance, and do extend to several other countries. However, they do not automatically generalize to every country – being listed as a Best Company to Work For is associated with superior returns only in countries with high labor market flexibility. These results are consistent with the idea that the recruitment, retention, and motivational benefits of employee satisfaction are most valuable in countries in which firms face fewer constraints on hiring and firing. These benefits are lower in countries with inflexible labor markets, leading to a downward shift in the marginal benefit of expenditure on employee welfare. Moreover, in such countries, regulations already provide a floor for worker welfare, leading to a movement down the marginal benefit curve. Both forces reduce the marginal benefit of investing in worker satisfaction, and thus being listed as a Best Company may reflect an agency problem.

The results emphasize the importance of the institutional context for both managers and investors. Edmans (2011, 2012) uses long-run stock returns as the dependent variable to mitigate

concerns about reverse causality from firm performance to employee satisfaction – any publicly-available performance measure should be incorporated into the stock price at the start of the return compounding window. However, these papers do not make strong claims about causality, as it may be that a third, unobservable variable (e.g. management quality) drives both employee satisfaction and stock returns. Even if their results are interpreted as causal, it is not the case that managers can hope to increase stock returns by investing in employee satisfaction, as a positive link only exists in countries with high labor market flexibility. Turning to investors, a strategy of investing in firms with high employee satisfaction will only generate superior returns in countries with high labor market flexibility. Given that the vast majority of empirical asset pricing studies that uncover alpha are based on U.S. data, the results emphasize caution in applying these strategies overseas. This caution is especially warranted for strategies that are likely to be dependent on the institutional or cultural environment, such as socially responsible investing strategies. Just as the value of employee satisfaction depends on the flexibility of labor markets and existing regulations on worker welfare, the value of other SRI screens such as gender diversity, animal rights, environmental protection, and operating in an ethical industry also likely depend on the context.

References

Aboody, D. and Lev, B., 1998. The value relevance of intangibles: the case of software capitalization. Journal of Accounting Research 36, 161–191.

Abowd, J., 1989. The effect of wage bargains on the stock market value of the firm. American Economic Review 79, 774–800.

Akerlof, G., and Yellen, J., 1986. Efficiency wage models of the labor market. Cambridge University Press, Cambridge, UK.

Akerlof, G., 1982. Labor contracts as partial gift exchange. Quarterly Journal of Economics 97, 543–569.

Asness, C. S., Moskowitz, T. J., and Pedersen, L. H., 2013. Value and momentum everywhere. Journal of Finance 68, 929–985.

Atanassov, J. and Kim, E. H., 2009. Labor and corporate governance: International evidence from restructuring decisions. Journal of Finance 64, 341–374.

Autor, D. H., Kerr, W. R. and Kugler, A. D., 2007. Does employment protection reduce productivity? Evidence from U.S. states. The Economic Journal 117, F189–F217.

Bauer, R., Koedijk, K., Otten, R., 2005. International evidence on ethical mutual fund performance and investment style. Journal of Banking and Finance 29, 1751–1767.

Bernal-Verdugo, L. E., Furceri, D., and Guillaume, D., 2012a. Labor market flexibility and unemployment: New empirical evidence of static and dynamic effects. Comparative Economic Studies 54, 251–273.

Bernal-Verdugo, L. E., Furceri, D., and Guillaume, D., 2012b. Crises, labor market policy, and unemployment. International Monetary Fund Working Paper.

Bertola, G., 1999. Microeconomic perspectives on aggregate labor markets. in: Orley Ashemfelter and David Card (eds), Handbook of labor Economics, Vol. 3C, Amsterdam, New York: Elsevier, 2985–3028.

Brammer, S., Brooks, C. and Pavelin, S., 2006. Corporate social performance and stock returns: UK evidence from disaggregate measures. Financial Management 35, 97–116.

Brennan, M.J., Chordia, T. and Subrahmanyam, A., 1998. Alternative factor specifications, security characteristics, and the cross-section of expected returns. Journal of Financial Economics 49, 345–373.

Chan, L., Lakonishok, J. and Sougiannis, T., 2001. The stock market valuation of research and development expenditures. Journal of Finance 56, 2431–2456.

Chen, H. J., Kacperczyk, M. and Ortiz-Molina, H., 2011. Labor unions, operating flexibility, and the cost of equity. Journal of Financial and Quantitative Analysis 46, 25–58.

Cheng, B., Ioannou, I. and Serafeim, G., 2014. Corporate sustainability and access to finance. Strategic Management Journal 35, 1–23.

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

Cronqvist, H., Heyman, F., Nilsson, M., Svaleryd, H. and Vlachos, J., 2009. Do entrenched managers pay their workers more? Journal of Finance 64, 309–339.

Deng, Z., Lev, B. and Narin, F., 1999. Science and technology as predictors of stock performance. Financial Analysts Journal 55, 20–32.

Derwall, J., Guenster, N., Bauer, R. and Koedijk, K., 2005. The eco-efficiency premium puzzle. Financial Analysts Journal 61, 51–63.

Dhrymes, P., 1998. Socially responsible investment: Is it profitable? In: Bruce, B. (Ed.), The Investment Research Guide to Socially Responsible Investing. The Colloquium on Socially Responsible Investing, Plano, TX, pp. 264–284.

Diltz, J., 1995. Does social screening affect portfolio performance? Journal of Investing 4, 64–69.

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

Edmans, A., 2012. The link between job satisfaction and firm value, with implications for corporate social responsibility. Academy of Management Perspectives 26, 1–19.

Fama, E. F. and French, K. R., 2012. Size, value, and momentum in international stock returns. Journal of Financial Economics 105, 457–472.

Fama, E. F., and MacBeth, J. D., 1973. Risk, return, and equilibrium: Empirical tests. Journal of Political Economy 81, 607–636.

Feldmann, H., 2009. The unemployment effects of labor regulation around the world. Journal of Comparative Economics 37, 76–90.

Freeman, R. B., Kruse, D., and Blasi, J., 2008. The same yet different: Worker reports on labor practices and outcomes in a single firm across countries. Labor Economics 15, 750–771.

Geczy, C., Stambaugh, R. and Levin, D., 2005. Investing in socially responsible mutual funds. Unpublished working paper, University of Pennsylvania.

Gorton, G. and Schmid, F. A., 2004. Capital, labor, and the firm: A study of German codetermination. Journal of the European Economic Association 2, 863–905.

Guerard, J., 1997. Is there a cost to being socially responsible in investing? Journal of Investing 6, 11–18.

Hall, P. A., and Soskice, D., 2001. An introduction to varieties of capitalism in Hall, P. A. and Soskice, D. (eds) Varieties of capitalism: the institutional foundations of comparative advantage. New York: Oxford University Press.

Haltiwanger, J., Scarpetta, S., and Schweiger, H., 2008. Assessing job flows across countries: the role of industry, firm size and regulations. NBER Working Paper Series.

Hamilton, S., Jo, H., and Statman, M., 1993. Doing well while doing good: the investment performance of socially responsible mutual funds. Financial Analysts Journal 49, 62–66.

Holderness, C. G., 2014a. Problems with using aggregate data to infer individual behavior: Evidence from law, finance, and ownership. Critical Finance Review, forthcoming.

Holderness, C. G., 2014b. Law and ownership re-examined. Critical Finance Review, forthcoming.

Hong, H. and Kacperczyk, M., 2009. The price of sin: the effect of social norms on markets. Journal of Financial Economics 93, 15–36.

Ioannou, I. and Serafeim, G., 2012. What drives corporate social performance? The role of nation-level institutions. Journal of International Business Studies 43, 834–864.

Jensen, M., and Meckling, W., 1976. Theory of the firm: managerial behavior, agency costs, and capital structure. Journal of Financial Economics 3, 305–360.

Kurtz, L., and DiBartolomeo, D., 1996. Socially screened portfolios: an attribution analysis of relative performance. Journal of Investing 5, 35–41.

La Porta, Rafael, López-de-Silanes, F., Shleifer, A. and Vishny, R., 1997. Legal determinants of external finance, Journal of Finance 52, 1131–1150.

Lee, D. S. and Mas, A., 2012. Long-run impacts of unions on firms: New evidence from financial markets, 1961–1999. Quarterly Journal of Economics 127, 333–378.

Lev, B. and Sougiannis, T., 1996. The capitalization, amortization, and value-relevance of R&D. Journal of Accounting and Economics 21, 107–138.

Luck, C. and Pilotte, N., 1993. Domini social index performance. Journal of Investing 2, 60–62.

McGregor, D., 1960. The human side of enterprise. McGraw-Hill, New York.

Messina and Vallanti, 2007. Job flow dynamics and firing restrictions: Evidence from Europe. Economic Journal 117, F279–F301.

Moskowitz, M., 1972. Choosing socially responsible stocks. Business and Society 1, 71–75.

Newey, W. and West, K., 1987.. A simple, positive semidefinite, heteroskedasticity and autocorrelation consistent covariance matrix. Econometrica 55, 703–70.

Nickell, S. J., 1997. Unemployment and labour market rigidities: Europe versus North America. Journal of Economic Perspectives 11, 55–74.

OECD, 2013. Employment adjustment, workers and unemployment. OECD Employment Outlook Chapter 5.

Pagano, M. and Volpin, P., 2005a. Managers, workers, and corporate control. Journal of Finance 60, 843–870.

Pagano, M. and Volpin, P., 2005b. The political economy of corporate governance. American Economic Review 95, 1005–1030.

Renneboog, L., Ter Horst, J. and Zhang, C., 2008a. Socially responsible investments: institutional aspects, performance, and investor behavior. Journal of Banking and Finance 32, 1723–1742.

Renneboog, L., Ter Horst, J. and Zhang, C., 2008b. The price of ethics and stakeholder governance: The performance of socially responsible mutual funds. Journal of Corporate Finance 14, 302–328.

Renneboog, L., Ter Horst, J. and Zhang, C., 2011. Is ethical money financial smart? Non-financial attributes and money flows of socially responsible investment funds. Journal of Financial Intermediation 20, 562–588.

Schröder, M., 2007. Is there a difference? The performance characteristics of SRI equity indices. Journal of Business Finance and Accounting 34, 331–348.

Shapiro, C. and Stiglitz, J., 1984. Equilibrium unemployment as a worker discipline device. American Economic Review 74, 433–444.

Simintzi, E., Vig, V. and Volpin, P., 2014. Labor protection and leverage. Review of Financial Studies, forthcoming.

Spamann, H., 2010. The antidirector rights index revisited. Review of Financial Studies 23, 467–486.

Statman, M. and Glushkov, D., 2008. The wages of social responsibility. Financial Analysts Journal 65, 33–46.

Taylor, F., 1911. The principles of scientific management. Harper Brothers, New York.

Thelen, C., 2001. Varieties of labor politics in the developed democracies, in Hall, P. A. and Soskice, D. (eds) Varieties of capitalism: the institutional foundations of comparative advantage, New York: Oxford University Press.

Table 1
Summary statistics

Panel A: Publicly-listed Best Companies to Work For

Panel A reports the list of countries in which at least ten publicly-listed Best Companies (BCs) are headquartered and publicly listed. Column (1) presents the years of BC lists that we use for each country. Column (2) reports our portfolio formation date for each country. Column (3) gives the number of listed BC per country. Column (4) presents the total number of listed firms in each country including BCs. Column (5) records the total number of firm-month observations for each country. Column (6) indicates for each country the number of BCs in the year the list was initiated and also in 2013. The last row summarizes data of all countries except the *US(84-)*. Our sample period is from February 1998 to December 2013. For the US we also extend the sample period from February 1984 to December 2013.

	(1)	(2)	(3)	(4)	(5)	(6)	
	Listing years	**Formation date**	**Total no. of public BCs**	**Total no. of firms**	**Total no. of Obs.**	**Size of BC lists Initial**	**2013**
Brazil	1998-2013	01-Sep	70	652	30,883	50	100
Canada	2006-2013	01-May	15	4,405	172,724	30	50
Chile	2001-2013	01-Dec	11	304	22,050	25	50
Denmark	2001-2013	01-Dec	23	461	26,960	50	75
Finland	2003-2013	01-Mar	14	241	19,448	20	50
France	2002-2013	01-Apr	18	1,765	92,813	25	49
Germany	2003-2013	01-Mar	24	1,646	84,252	50	100
Greece	2003-2013	01-May	12	443	39,570	10	25
India	2003-2013	01-Jun	46	2,578	131,432	25	100
Japan	2007-2013	01-Apr	38	4,981	510,977	20	40
Korea	2002-2013	01-Nov	49	2,019	128,687	20	100
Sweden	2003-2013	01-May	11	823	44,418	25	38
UK	2001-2013	01-May	33	4,943	199,276	50	50
US(98-)	1998-2013	01-Feb	188	11,478	1,209,671	100	100
US(84-)	1984-2013	01-Feb	259	–	–	100	100
All	–	–	552	39,239	2,713,161	500	840

Table 1 (Cont'd)

Panel B: Employment protection legislation and labor market flexibility

Panel B summarizes the employment protection legislation (EPL) indicators from OECD and the labor market flexibility index (EFW) based on the Fraser Institute's Economic Freedom of the World database. Column (1) presents the average scores of employment protection legislation index for each country. They are based on the average of three components, namely the individual dismissal of workers with regular contracts (EPR), additional costs for collective dismissals (EPC), and regulation of temporary contracts (EPT). Columns (2) – (4) report the average per country for these components, respectively. Column (5) presents the average scores of the aggregate labor market flexibility index calculated as the average of its six components. Column (6) presents the average score of hiring regulations and minimum wage per country (5Bi). Column (7) presents the average score of hiring and firing regulations (5Bii). Column (8) presents the average score of centralized collective bargaining (5Biii). Column (9) presents the average score of hours regulations. Column (10) presents the average score of mandated cost of worker dismissal (5Bv). Column (11) presents the average score of military conscription (5Bvi). The sample period is from 1998 to 2013 for *EPL* and from 2002 to 2013 for *EFW*.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	EPL	**Individual dismissals (regular contracts)**	**Collective dismissals (additional costs)**	**Temporary contracts**	**EFW**	**Hiring regulations and min. wage**	**Hiring and firing regulations**	**Centralized collective bargaining**	**Hours regulations**	**Mandated cost of worker dismissal**	**Conscription**
		EPR	**EPC**	**EPT**		**5Bi**	**5Bii**	**5Biii**	**5Biv**	**5Bv**	**5Bvi**
Brazil	2.159	1.452	0.900	4.125	4.643	3.620	4.410	5.335	5.175	6.315	3.000
Canada	1.380	0.921	2.969	0.250	7.916	7.740	6.055	7.485	8.430	7.785	10.00
Chile	1.876	2.627	0.000	3.000	5.766	6.120	4.900	7.965	8.625	6.215	0.769
Denmark	2.257	2.147	3.250	1.375	6.753	7.795	7.580	5.490	6.650	10.00	3.000
Finland	1.849	2.203	1.781	1.563	4.931	4.625	4.335	3.635	5.280	8.708	3.000
France	3.134	2.402	3.375	3.625	5.528	3.245	2.885	5.870	3.570	7.600	10.00
Germany	2.591	2.798	3.625	1.352	4.515	5.500	2.870	3.410	5.045	4.800	5.462
Greece	3.117	2.680	3.250	3.422	4.472	5.405	3.655	4.010	4.360	7.015	2.385
India	1.846	3.286	0.438	1.813	6.990	8.370	3.335	6.940	7.850	5.446	10.00
Japan	1.920	1.556	3.250	0.953	8.085	8.250	3.785	8.005	8.685	9.785	10.00
Korea	2.144	2.369	1.875	2.188	4.376	6.600	4.110	7.135	6.475	1.938	0.000
Sweden	2.109	2.333	2.500	2.945	5.285	5.535	3.080	3.975	4.725	8.708	5.692
UK	1.459	1.159	2.860	0.338	7.968	7.920	6.045	7.555	7.825	8.462	10.00
US	1.127	0.257	2.875	0.250	8.673	8.355	7.015	7.790	8.875	10.000	10.00
Average	2.069	1.937	2.852	1.681	6.396	6.363	4.576	6.043	6.541	7.341	5.951
Std. Dev.	0.623	0.767	1.016	1.201	1.711	2.459	1.754	1.763	2.479	1.891	3.993

Table 2
Risk-adjusted returns of equal-weighted BC portfolios

This table reports regression results of monthly returns of equal-weighted portfolios of Best Companies using Carhart's (1997) four-factor model:

$$R_{ct} = \alpha + \beta_{MKT} MKT_{ct} + \beta_{HML} HML_{ct} + \beta_{SMB} SMB_{ct} + \beta_{MOM} MOM_{ct} + \varepsilon_{ct}$$

where R_{ct} is the return on equal-weighted portfolio of listed BCs in month t for country c in excess of the risk-free rate. α is the intercept that captures the abnormal risk-adjusted return. MKT_{ct}, HML_{ct}, SMB_{ct}, and MOM_{ct}, are, respectively, the Fama and French (2012)'s regional factors on market, value, and size, and momentum. Coefficient estimates are shown in bold, and their standard errors are displayed in parentheses below, adjusted for heteroscedasticity and autocorrelation (Newey and West (1987)). ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample period is from February 1998 to December 2013. For the US we also extend the sample period from February 1984 to December 2013.

	α	β_{MKT}	β_{HML}	β_{SMB}	β_{MOM}	Adj.R^2	Obs. No.
Brazil	**0.942**	**0.969*****	**0.349****	**0.535****	**-0.057**	0.312	183
	(0.606)	(0.135)	(0.147)	(0.211)	(0.142)		
Canada	**0.091**	**1.280*****	**-0.209**	**-0.320**	**-0.113**	0.648	90
	(0.485)	(0.113)	(0.217)	(0.277)	(0.142)		
Chile	**0.971***	**0.716*****	**-0.264**	**0.464****	**0.003**	0.280	143
	(0.503)	(0.146)	(0.211)	(0.216)	(0.109)		
Denmark	**-0.629**	**0.934*****	**0.074**	**0.788*****	**0.095**	0.685	143
	(0.403)	(0.076)	(0.160)	(0.154)	(0.077)		
Finland	**0.957**	**0.947*****	**0.295**	**0.501**	**-0.232**	0.471	92
	(0.715)	(0.165)	(0.390)	(0.359)	(0.156)		
France	**0.346**	**0.891*****	**-0.415***	**-0.366**	**-0.240**	0.592	127
	(0.453)	(0.093)	(0.242)	(0.252)	(0.101)		
Germany	**-0.445**	**1.028*****	**0.310**	**-0.167**	**-0.193****	0.642	128
	(0.437)	(0.092)	(0.301)	(0.189)	(0.096)		
Greece	**-0.584**	**1.143*****	**-0.275**	**0.282**	**-0.462**	0.488	96
	(0.791)	(0.227)	(0.630)	(0.461)	(0.180)		
India	**1.076**	**1.029*****	**0.274**	**0.089**	**-0.413*****	0.533	113
	(0.670)	(0.099)	(0.269)	(0.224)	(0.141)		
Japan	**0.768****	**0.985*****	**-0.083**	**0.623*****	**0.008**	0.701	79
	(0.332)	(0.076)	(0.156)	(0.156)	(0.096)		
Korea	**0.602**	**1.037*****	**-0.000**	**-0.194**	**-0.159**	0.552	132
	(0.570)	(0.082)	(0.209)	(0.229)	(0.200)		
Sweden	**0.870***	**1.136*****	**-0.623****	**0.377**	**0.129**	0.497	127
	(0.497)	(0.106)	(0.262)	(0.328)	(0.159)		
UK	**0.812**	**0.835*****	**-0.617*****	**0.405***	**-0.279****	0.446	150
	(0.569)	(0.081)	(0.195)	(0.216)	(0.126)		
US(98-)	**0.222*****	**1.028*****	**0.134*****	**0.117*****	**0.008**	0.895	280
	(0.080)	(0.028)	(0.036)	(0.040)	(0.008)		
US(84-)	**0.262*****	**1.076*****	**0.030**	**0.192*****	**-0.148*****	0.927	359
	(0.080)	(0.022)	(0.033)	(0.043)	(0.020)		

Table 3
Risk-adjusted returns of value-weighted BC portfolios

This table reports regression results of monthly returns of value-weighted portfolios of Best Companies using Carhart's (1997) four-factor model:

$$R_{ct} = \alpha + \beta_{MKT} MKT_{ct} + \beta_{HML} HML_{ct} + \beta_{SMB} SMB_{ct} + \beta_{MOM} MOM_{ct} + \varepsilon_{ct}$$

where R_{ct} is the return on value-weighted portfolio of listed BCs in month t for country c in excess of the risk-free rate. α is the intercept that captures the abnormal risk-adjusted return. MKT_{ct}, HML_{ct}, SMB_{ct}, and MOM_{ct}, are, respectively, the Fama and French (2012)'s regional factors on market, value, and size, and momentum. Coefficient estimates are shown in bold, and their standard errors are displayed in parentheses below, adjusted for heteroscedasticity and autocorrelation (Newey and West (1987)). ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample period is from February 1998 to December 2013. For the US we also extend the sample period from February 1984 to December 2013.

	α	β_{MKT}	β_{HML}	β_{SMB}	β_{MOM}	Adj.R^2	Obs. No.
Brazil	**0.591**	**0.944*****	**0.228**	**0.420****	**-0.119**	0.306	183
	(0.580)	(0.134)	(0.168)	(0.204)	(0.123)		
Canada	**0.203**	**1.148*****	**0.093**	**-0.227**	**-0.137**	0.757	90
	(0.326)	(0.089)	(0.197)	(0.162)	(0.092)		
Chile	**1.039***	**0.762*****	**-0.288**	**0.580***	**0.070**	0.240	143
	(0.563)	(0.144)	(0.230)	(0.337)	(0.148)		
Denmark	**-1.020***	**1.045*****	**-0.220**	**0.442***	**0.151**	0.490	143
	(0.572)	(0.105)	(0.288)	(0.230)	(0.136)		
Finland	**0.739**	**0.960*****	**0.135**	**0.325**	**-0.298****	0.455	92
	(0.717)	(0.169)	(0.395)	(0.374)	(0.149)		
France	**-0.200**	**0.891*****	**-0.129**	**0.161**	**0.083**	0.478	127
	(0.424)	(0.081)	(0.257)	(0.212)	(0.100)		
Germany	**-0.453**	**0.957*****	**0.338**	**-0.285**	**-0.106**	0.509	128
	(0.549)	(0.092)	(0.289)	(0.205)	(0.101)		
Greece	**-0.582**	**1.216*****	**-0.050**	**-0.219**	**-0.734****	0.542	96
	(0.843)	(0.229)	(0.685)	(0.503)	(0.243)		
India	**0.861**	**1.022*****	**-0.085**	**0.172**	**-0.264***	0.559	113
	(0.608)	(0.097)	(0.222)	(0.200)	(0.149)		
Japan	**0.365**	**0.938*****	**-0.276****	**-0.011**	**-0.015**	0.721	79
	(0.308)	(0.074)	(0.130)	(0.155)	(0.103)		
Korea	**0.135**	**1.121*****	**0.107**	**-0.384**	**-0.158**	0.527	132
	(0.623)	(0.092)	(0.262)	(0.284)	(0.247)		
Sweden	**0.212**	**1.165*****	**-0.761*****	**0.313**	**0.140**	0.475	127
	(0.517)	(0.127)	(0.280)	(0.358)	(0.138)		
UK	**0.988****	**0.727*****	**-0.400****	**-0.243**	**-0.010**	0.360	150
	(0.475)	(0.081)	(0.156)	(0.202)	(0.096)		
US(98-)	**0.194***	**1.032*****	**-0.302*****	**-0.237*****	**0.007**	0.834	280
	(0.106)	(0.031)	(0.060)	(0.051)	(0.007)		
US(84-)	**0.191***	**1.019*****	**-0.334*****	**-0.153*****	**-0.063***	0.862	359
	(0.107)	(0.028)	(0.049)	(0.046)	(0.033)		

Table 4
Pooled panel regressions by country

This table reports results of monthly firm-level pooled panel regressions:

$$R_{it} = \alpha_0 + \alpha_1 BC_{it} + \alpha_2 FirmControls_{it} + \alpha_3 FE_t + \varepsilon_{it}$$

where R_{it} is the raw return for firm *i* in month *t*. BC_{it} is a dummy variable that equals one if firm *i* has been included in the most recent BC list prior to month *t*, and zero otherwise. The firm characteristics control variables, $FirmControls_{it-2}$, include the following variables: *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*. *RET2-3* is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. FE_t refers to month fixed effect. Coefficient estimates are shown in bold, and their standard errors are clustered by firm and are given in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample period is from January 1998 to December 2013.

	BC	**SIZE**	**BM**	**YIELD**	**RET2-3**	**RET4-6**
Brazil	**0.159**	**-0.110**	**0.531*****	**-0.009*****	**-0.693**	**0.791***
	(0.530)	(0.068)	(0.106)	(0.002)	(0.568)	(0.450)
Canada	**2.724*****	**-0.272*****	**1.172*****	**-0.010**	**0.182**	**-0.113**
	(0.339)	(0.060)	(0.061)	(0.033)	(0.225)	(0.178)
Chile	**0.352***	**0.019**	**0.373*****	**0.029**	**0.887**	**1.565*****
	(0.207)	(0.059)	(0.088)	(0.020)	(0.538)	(0.437)
Denmark	**-0.547**	**-0.048**	**0.871*****	**0.095**	**1.907*****	**1.842*****
	(0.344)	(0.063)	(0.131)	(0.063)	(0.682)	(0.474)
Finland	**-0.454**	**-0.241*****	**0.925*****	**0.008**	**1.180***	**1.773*****
	(0.489)	(0.075)	(0.116)	(0.009)	(0.678)	(0.411)
France	**-0.332**	**-0.100****	**0.790*****	**0.064*****	**0.834****	**1.533*****
	(0.426)	(0.040)	(0.069)	(0.017)	(0.347)	(0.229)
Germany	**-0.365**	**0.110*****	**0.974*****	**-0.000**	**1.596*****	**1.851*****
	(0.350)	(0.032)	(0.069)	(0.007)	(0.306)	(0.232)
Greece	**1.518*****	**-0.187****	**0.854*****	**-0.008**	**0.808***	**0.181**
	(0.547)	(0.083)	(0.115)	(0.010)	(0.449)	(0.380)
India	**1.434****	**-0.110*****	**0.688*****	**0.151***	**0.596****	**0.841*****
	(0.589)	(0.041)	(0.054)	(0.083)	(0.240)	(0.177)
Japan	**1.075*****	**-0.134*****	**0.882*****	**0.002*****	**0.480*****	**-0.688*****
	(0.269)	(0.017)	(0.031)	(0.000)	(0.135)	(0.104)
Korea	**1.407*****	**-0.004**	**1.430*****	**0.002****	**-1.341*****	**0.490****
	(0.443)	(0.045)	(0.077)	(0.001)	(0.297)	(0.216)
Sweden	**-0.039**	**-0.199*****	**0.851*****	**-0.003**	**1.282*****	**1.927*****
	(0.473)	(0.066)	(0.082)	(0.006)	(0.435)	(0.327)
UK	**0.432**	**-0.311*****	**0.847*****	**-0.000**	**0.626*****	**1.452*****
	(0.319)	(0.035)	(0.041)	(0.001)	(0.201)	(0.154)
US(98-)	**0.284*****	**0.055*****	**-0.178*****	**0.207*****	**0.493*****	**0.669*****
	(0.099)	(0.015)	(0.019)	(0.062)	(0.099)	(0.080)

Table 4 (Cont'd)

	RET7-12	VOL	PRC	Constant	R^2	Obs. No.
Brazil	**-0.356**	**0.065***	**0.068**	**2.200*****	0.002	30,883
	(0.301)	(0.034)	(0.049)	(0.170)		
Canada	**0.764*****	**0.195*****	**0.087**	**1.526*****	0.008	172,724
	(0.131)	(0.033)	(0.061)	(0.194)		
Chile	**0.610****	**0.029**	**-0.104****	**1.382*****	0.003	22,050
	(0.306)	(0.027)	(0.042)	(0.087)		
Denmark	**1.598*****	**0.198*****	**-0.307*****	**0.297**	0.013	26,960
	(0.340)	(0.037)	(0.068)	(0.252)		
Finland	**0.932*****	**0.230*****	**-0.442*****	**0.211**	0.010	19,448
	(0.349)	(0.046)	(0.085)	(0.260)		
France	**0.786*****	**0.098*****	**-0.077**	**1.050*****	0.005	92,813
	(0.166)	(0.023)	(0.051)	(0.184)		
Germany	**0.483*****	**-0.026**	**-0.046**	**1.032*****	0.067	84,252
	(0.166)	(0.026)	(0.050)	(0.144)		
Greece	**-0.179**	**0.001**	**-0.316*****	**-0.032**	0.011	39,570
	(0.257)	(0.051)	(0.112)	(0.314)		
India	**0.620*****	**0.064****	**-0.259*****	**1.365*****	0.003	131,432
	(0.128)	(0.027)	(0.045)	(0.139)		
Japan	**-0.047**	**0.164*****	**-0.110*****	**0.351*****	0.046	510,977
	(-0.077)	(0.011)	(0.018)	(0.050)		
Korea	**0.361****	**0.097*****	**0.131****	**1.879*****	0.008	128,687
	(0.161)	(0.029)	(0.053)	(0.214)		
Sweden	**0.226**	**0.165*****	**-0.367*****	**0.586*****	0.007	44,418
	(0.243)	(0.043)	(0.071)	(0.220)		
UK	**0.831*****	**0.280*****	**-0.387****	**-0.387*****	0.008	199,276
	(0.116)	(0.021)	(0.033)	(0.033)		
US(98-)	**1.161*****	**-0.069*****	**0.188*****	**0.279*****	0.002	1,209,671
	(0.104)	(0.012)	(0.017)	(0.094)		

Table 5
Fama-MacBeth regressions by country

This table reports results of firm-level cross-sectional regressions based on Fama-MacBeth's (1973) method in a given month *t*:

$$R_i = \alpha_0 + \alpha_1 BC_i + \alpha_2 FirmControls_i + \varepsilon_i$$

where R_i is the raw return for firm *i* in the given month *t*. BC_i is a dummy variable that equals one if firm *i* has been included in the most recent BC list prior to the given month *t*, and zero otherwise. The firm characteristics control variables, $FirmControls_i$, include the following variables: *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*. *RET2-3* is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. Coefficient estimates are calculated as the time-series average of the monthly coefficients for each country and shown in bold, and their standard errors are displayed in parentheses below, adjusted for heteroscedasticity and autocorrelation (Newey and West (1987)). ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample period is from January 1998 to December 2013.

	BC	**SIZE**	**BM**	**YIELD**	**RET2-3**	**RET4-6**
Brazil	**0.196**	**-0.090**	**0.465*****	**-0.179***	**0.047**	**0.611**
	(0.386)	(0.096)	(0.111)	(0.098)	(0.621)	(0.668)
Canada	**0.895*****	**-0.380*****	**1.095*****	**-0.027**	**0.521**	**0.117**
	(0.250)	(0.102)	(0.128)	(0.115)	(0.443)	(0.420)
Chile	**0.101**	**-0.012**	**0.494*****	**0.453*****	**2.132*****	**2.601*****
	(0.215)	(0.064)	(0.137)	(0.150)	(0.750)	(0.585)
Denmark	**-0.313**	**-0.100**	**0.807*****	**0.276**	**3.061*****	**1.371****
	(0.278)	(0.089)	(0.141)	(0.173)	(0.799)	(0.536)
Finland	**-0.088**	**-0.322*****	**0.768*****	**0.016**	**3.375*****	**1.547****
	(0.113)	(0.093)	(0.187)	(0.181)	(0.748)	(0.691)
France	**0.231**	**-0.133***	**0.650*****	**0.068**	**1.630****	**2.020*****
	(0.257)	(0.071)	(0.118)	(0.114)	(0.651)	(0.445)
Germany	**-0.425**	**-0.016**	**0.734*****	**-0.334**	**1.457*****	**1.107*****
	(0.292)	(0.072)	(0.134)	(0.245)	(0.539)	(0.406)
Greece	**-0.078**	**-0.269**	**1.159*****	**-0.078**	**-0.341**	**-0.323**
	(0.352)	(0.231)	(0.239)	(0.099)	(0.798)	(0.587)
India	**0.742****	**-0.173**	**0.799*****	**0.163**	**1.446****	**1.724*****
	(0.332)	(0.111)	(0.152)	(0.120)	(0.620)	(0.455)
Japan	**0.526*****	**-0.234****	**0.847*****	**-0.388*****	**-0.330**	**-0.168**
	(0.193)	(0.116)	(0.080)	(0.144)	(0.434)	(0.357)
Korea	**0.844*****	**-0.181**	**1.402*****	**-0.006**	**-1.193*****	**0.668**
	(0.280)	(0.133)	(0.170)	(0.070)	(0.419)	(0.468)
Sweden	**0.222**	**-0.309*****	**0.709*****	**0.077**	**1.757*****	**2.400*****
	(0.281)	(0.096)	(0.170)	(0.171)	(0.621)	(0.560)
UK	**0.769*****	**-0.250*****	**0.707*****	**0.098**	**1.261*****	**1.797*****
	(0.261)	(0.095)	(0.122)	(0.087)	(0.477)	(0.364)
US(98-)	**0.193**	**0.048**	**-0.263*****	**0.369**	**1.047*****	**0.851****
	(0.147)	(0.087)	(0.096)	(0.294)	(0.382)	(0.341)

Table 5 (Cont'd)

	RET7-12	VOL	PRC	Constant	Ave. R^2	Obs. No.
Brazil	**-0.184**	**0.044**	**0.070**	**1.755****	0.124	30,883
	(0.528)	(0.045)	(0.095)	(0.776)		
Canada	**0.565***	**0.243*****	**0.470****	**1.487***	0.058	172,724
	(0.312)	(0.072)	(0.189)	(0.804)		
Chile	**0.344**	**0.042**	**-0.027**	**1.046****	0.160	22,050
	(0.465)	(0.038)	(0.041)	(0.482)		
Denmark	**1.635*****	**0.205*****	**0.003**	**0.517**	0.146	26,960
	(0.493)	(0.045)	(0.064)	(0.611)		
Finland	**1.431*****	**0.238*****	**-0.087**	**0.069**	0.179	19,448
	(0.505)	(0.068)	(0.092)	(0.499)		
France	**1.072*****	**0.070**	**0.153****	**1.425****	0.092	92,813
	(0.384)	(0.054)	(0.076)	(0.562)		
Germany	**0.534**	**0.049**	**0.047**	**1.216***	0.092	84,252
	(0.332)	(0.069)	(0.087)	(0.652)		
Greece	**0.152**	**-0.018**	**-0.226**	**0.337**	0.148	39,570
	(0.439)	(0.092)	(0.204)	(1.173)		
India	**0.920***	**0.023**	**-0.058**	**1.535***	0.103	131,432
	(0.518)	(0.061)	(0.108)	(0.804)		
Japan	**-0.198**	**0.179****	**-0.025**	**0.118**	0.079	510,977
	(0.334)	(0.074)	(0.096)	(0.292)		
Korea	**0.626****	**0.137****	**0.133**	**0.819**	0.062	128,687
	(0.279)	(0.058)	(0.129)	(1.077)		
Sweden	**0.704**	**0.229*****	**0.057**	**0.690**	0.112	44,418
	(0.512)	(0.067)	(0.107)	(0.562)		
UK	**1.154*****	**0.230*****	**0.111***	**0.281**	0.057	199,276
	(0.310)	(0.053)	(0.065)	(0.441)		
US(98-)	**1.591*****	**-0.086**	**0.144**	**-0.357**	0.060	1,209,671
	(0.509)	(0.088)	(0.173)	(0.949)		

Table 6
Pooled panel regressions across countries

Panel A: Measuring labor market flexibility with EPL

This table reports the results of pooled panel regressions across countries:

$$Return_{cit} = \beta_0 + \beta_1 BC_{cit} + \beta_2 BC_{cit} \times EPL_{ct} + \beta_3 BC_{cit} \times CountryControls_{ct} + \delta_1 EPL_{ct} + \delta_2\, CountryControls_{ct} + \delta_3\, FirmControls_{cit} + \delta_4\, FE_t + \varepsilon_{cit}$$

where $Return_{cit}$ is either the raw return (R_{cit}) or the market-adjusted return (i.e. the raw return in excess of the market return) for firm *i* in country *c* in month *t*. BC_{cit} is a dummy variable that equals one if firm *i* has been included in the most recent BC list in country *c* prior to month *t*, and zero otherwise. EPL_{ct} is the Employment Protection Legislation (EPL) indicator from OECD for country *c* at time *t* and is based on the legislations in three broad categories: individual dismissal of workers with regular contracts, collective dismissals, and temporary contracts. $CountryControls_{ct}$ indicate the following country-level control variables for country *c* at time *t*: $RuleofLaw_c$ measures the law and order tradition from LLSV(1997); $Gdpg_{ct}$ measures the GDP growth taken from the World Bank; $SoCM_c$ measures the size of capital market, specifically the number of listed domestic firms per (million) capita from LLSV(1997); $ADRI_c$ measures anti-director rights index corrected by Spamann (2010); $OSOV_c$ measures one-share one-vote from LLSV (1997). $FirmControls_{cit}$ include the following variables: *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*. *RET2-3* is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. FE_t refers to month fixed effect. Standard errors are clustered by firm and are given in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample is from January 1998 to December 2013.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variables		Raw returns			Market-adjusted returns	
BC_{cit}	**0.760*****	**0.964*****	**0.814**	**0.719*****	**1.167*****	**0.300**
	(0.086)	(0.218)	(0.913)	(0.107)	(0.245)	(0.915)
BC_{cit}*EPL_{ct}		**-0.171**	**-0.693*****		**-0.302***	**-0.790*****
		(0.140)	(0.155)		(0.160)	(0.177)
BC_{cit}*$RuleofLaw_c$			**0.081**			**0.059**
			(0.115)			(0.140)
BC_{cit}*$Gdpg_{ct}$			**0.138*****			**0.123****
			(0.045)			(0.048)
BC_{cit}*$SoCM_c$			**-0.026****			**-0.020**
			(0.011)			(0.012)
BC_{cit}*$ADRI_c$			**0.077**			**0.225**
			(0.203)			(0.245)
BC_{cit}*$OSOV_c$			**0.906****			**1.353*****
			(0.359)			(0.396)
EPL_{ct}		**-0.067*****	**0.236*****		**-0.014**	**-0.008**
		(0.025)	(0.037)		(0.036)	(0.060)
$RuleofLaw_c$			**-0.049*****			**-0.121*****
			(0.015)			(0.020)
$Gdpg_{ct}$			**0.066*****			**-0.066*****
			(0.008)			(0.010)
$SoCM_c$			**0.018*****			**0.005***

			(0.002)			(0.003)
$ADRI_c$			**0.355*****			**0.342*****
			(0.031)			(0.041)
$OSOV_c$			**-0.554*****			**-0.517*****
			(0.034)			(0.041)
SIZE	**-0.092*****	**-0.080*****	**-0.110*****	**-0.055*****	**-0.061*****	**-0.091*****
	(0.005)	(0.006)	(0.006)	(0.009)	(0.010)	(0.011)
BM	**0.562*****	**0.528*****	**0.569*****	**0.545*****	**0.515*****	**0.531*****
	(0.015)	(0.015)	(0.016)	(0.027)	(0.029)	(0.033)
YIELD	**0.000**	**0.000**	**0.000**	**-0.002**	**-0.001**	**-0.001**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
RET2-3	**0.414*****	**0.329*****	**0.320*****	**0.020**	**0.006**	**-0.009**
	(0.066)	(0.068)	(0.069)	(0.101)	(0.105)	(0.107)
RET4-6	**0.311*****	**0.207*****	**0.183*****	**-0.195*****	**-0.263*****	**-0.288*****
	(0.052)	(0.054)	(0.055)	(0.070)	(0.073)	(0.074)
RET7-12	**0.772*****	**0.677*****	**0.573*****	**0.803*****	**0.835*****	**0.780*****
	(0.039)	(0.042)	(0.043)	(0.069)	(0.061)	(0.063)
VOL	**0.081*****	**0.073*****	**0.091*****	**0.046*****	**0.048*****	**0.065*****
	(0.005)	(0.005)	(0.005)	(0.010)	(0.010)	(0.011)
PRC	**0.174*****	**0.145*****	**0.150*****	**0.300*****	**0.292*****	**0.305*****
	(0.008)	(0.008)	(0.009)	(0.021)	(0.023)	(0.024)
Constant	**1.296*****	**1.291*****	**-0.845*****	**1.096*****	**1.086*****	**0.818*****
	(0.021)	(0.045)	(0.213)	(0.063)	(0.078)	(0.256)
Month fixed effects	included	included	included	included	included	included
R^2	0.002	0.002	0.002	0.001	0.001	0.002
Number of obs.	2,709,946	2,606,725	2,531,711	2,632,953	2,543,892	2,474,370

Table 6 (Cont'd)

Panel B: Measuring labor market flexibility with EFW

This table reports the results of pooled panel regressions across countries:

$$Return_{cit} = \beta_0 + \beta_1 BC_{cit} + \beta_2 BC_{cit} \times EFW_{ct} + \beta_3 BC_{cit} \times CountryControls_{ct} + \delta_1 EFW_{ct} + \delta_2 CountryControls_{ct} + \delta_3 FirmControls_{cit} + \delta_4 FE_t + \varepsilon_{cit}$$

where $Return_{cit}$ is either the raw return (R_{cit}) or the market-adjusted return (i.e. the raw return in excess of the market return) for firm *i* in country *c* in month *t*. BC_{cit} is a dummy variable that equals one if firm *i* has been included in the most recent BC list in country *c* prior to month *t*, and zero otherwise. EFW_{ct} is the labor market flexibility indicator for country *c* at time *t* and is calculated as the average score of six indicators on hiring regulations and mini wage, hiring and firing regulations, centralized collective bargaining, hours regulations, mandated cost of worker dismissal and military conscription obtained from the Fraser Institute's Economic Freedom of the World database. $CountryControls_{ct}$ indicate the following country-level control variables for country *c* at time *t*: $RuleofLaw_c$ measures the law and order tradition from LLSV(1997); $Gdpg_{ct}$ measures the GDP growth taken from the World Bank; $SoCM_c$ measures the size of capital market, specifically the number of listed domestic firms per (million) capita from LLSV(1997); $ADRI_c$ measures anti-director rights index corrected by Spamann (2010); $OSOV_c$ measures one-share one-vote from LLSV (1997). $FirmControls_{cit}$ include the following variables: *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*. *RET2-3* is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. FE_t refers to month fixed effect. Standard errors are clustered by firm and are given in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample is from January 2002 to December 2013.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variables		Raw returns			Market-adjusted returns	
BC_{cit}	**0.629*****	**-0.157**	**-0.890**	**0.620*****	**-0.543**	**-0.546**
	(0.096)	(0.434)	(0.799)	(0.121)	(0.531)	(0.727)
BC_{cit}*EFW_{ct}		**0.088***	**0.232*****		**0.140****	**0.394*****
		(0.053)	(0.084)		(0.063)	(0.097)
BC_{cit}*$RuleofLaw_c$			**-0.187**			**-0.144**
			(0.114)			(0.140)
BC_{cit}*$Gdpg_{ct}$			**-0.050**			**-0.051**
			(0.040)			(0.043)
BC_{cit}*$SoCM_c$			**-0.016**			**-0.021**
			(0.012)			(0.014)
BC_{cit}*$ADRI_c$			**0.358***			**-0.043**
			(0.213)			(0.260)
BC_{cit}*$OSOV_c$			**0.262**			**0.861****
			(0.370)			(0.413)
EFW_{ct}		**-0.147*****	**-0.153*****		**-0.066*****	**-0.075*****
		(0.008)	(0.012)		(0.011)	(0.022)
$RuleofLaw_c$			**0.152*****			**-0.035**
			(0.016)			(0.025)
$Gdpg_{ct}$			**0.296*****			**0.020***
			(0.008)			(0.011)
$SoCM_c$			**0.006*****			**0.006****

			(0.002)			(0.003)
$ADRI_c$			**0.113*****			**0.399*****
			(0.034)			(0.043)
$OSOV_c$			**-0.284*****			**-0.400*****
			(0.046)			(0.064)
SIZE	**-0.123*****	**-0.086*****	**-0.132*****	**-0.071*****	**-0.055*****	**-0.098*****
	(0.006)	(0.006)	(0.007)	(0.011)	(0.012)	(0.013)
BM	**0.591*****	**0.593*****	**0.672*****	**0.629*****	**0.632*****	**0.662*****
	(0.017)	(0.017)	(0.018)	(0.036)	(0.036)	(0.040)
YIELD	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.003**
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
RET2-3	**0.367*****	**0.371*****	**0.231*****	**0.092**	**0.094**	**0.056**
	(0.078)	(0.078)	(0.079)	(0.105)	(0.105)	(0.107)
RET4-6	**-0.512*****	**-0.510*****	**-0.657*****	**-0.780*****	**-0.779*****	**-0.821*****
	(0.061)	(0.061)	(0.062)	(0.079)	(0.079)	(0.081)
RET7-12	**0.845*****	**0.895*****	**0.645*****	**0.806*****	**0.830*****	**0.737*****
	(0.045)	(0.045)	(0.047)	(0.065)	(0.065)	(0.068)
VOL	**0.083*****	**0.074*****	**0.093*****	**0.038*****	**0.035*****	**0.053*****
	(0.005)	(0.005)	(0.006)	(0.012)	(0.012)	(0.013)
PRC	**0.145*****	**0.182*****	**0.137*****	**0.241*****	**0.259*****	**0.273*****
	(0.009)	(0.009)	(0.009)	(0.025)	(0.026)	(0.027)
Constant	**1.388*****	**2.598*****	**0.115**	**1.049*****	**1.596*****	**0.160**
	(0.024)	(0.073)	(0.159)	(0.078)	(0.130)	(0.188)
Month fixed effects	included	included	included	included	included	included
R^2	0.002	0.003	0.003	0.001	0.002	0.002
Number of obs.	2,057,738	2,057,738	1,976,594	2,006,911	2,006,911	1,931,259

Table 7
Fama-MacBeth regressions across countries

Panel A: Measuring labor market flexibility with EPL

This table reports results of firm-level cross-sectional regressions based on Fama-MacBeth's (1973) method in a given month *t*:

$$Return_{ci} = \beta_0 + \beta_1 BC_{ci} + \beta_2 BC_{ci} \times EPL_c + \beta_3 BC_{ci} \times CountryControls_c + \delta_1 EPL_c + \delta_2\, CountryControls_c + \delta_3\, FirmControls_{ci} + \varepsilon_{ci}$$

where $Return_{ci}$ is either the raw return (R_{ci}) or the market-adjusted return (i.e. the raw return in excess of the market return) for firm *i* in country *c* in the given month *t*. BC_{ci} is a dummy variable that equals one if firm *i* has been included in the most recent BC list in country *c* prior to the given month *t*, and zero otherwise. EPL_c is the Employment Protection Legislation (EPL) indicator from OECD for country *c* at the given month *t* and is based on the legislations in three broad categories: individual dismissal of workers with regular contracts, collective dismissals, and temporary contracts. $CountryControls_c$ indicate the following country-level control variables for country *c* at the given *t*: $RuleofLaw_c$ measures the law and order tradition from LLSV(1997); $Gdpg_c$ measures the GDP growth taken from the World Bank; $SoCM_c$ measures the size of capital market, specifically the number of listed domestic firms per (million) capita from LLSV(1997); $ADRI_c$ measures anti-director rights index corrected by Spamann (2010); $OSOV_c$ measures one-share one-vote from LLSV (1997). $FirmControls_{ci}$ include the following variables: *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*. *RET2-3* is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. FE_t refers to month fixed effect. The reported coefficients are the time-series average of the monthly coefficients. Standard errors are displayed in parentheses below, adjusted for heteroscedasticity and autocorrelation (Newey and West (1987)). ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample is from January 1998 to December 2013.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variables		**Raw returns**			**Market-adjusted returns**	
BC_{cit}	**0.679*****	**0.513**	**-0.239**	**0.676*****	**0.818****	**1.553**
	(0.123)	(0.387)	(1.730)	(0.147)	(0.382)	(6.173)
BC_{cit}*EPL_{ct}		**0.157**	**-0.522****		**-0.041**	**-0.754****
		(0.312)	(0.213)		(0.295)	(0.371)
BC_{cit}*$RuleofLaw_c$			**0.279**			**0.428**
			(0.296)			(1.234)
BC_{cit}*$Gdpg_{ct}$			**0.038**			**0.037**
			(0.169)			(0.265)
BC_{cit}*$SoCM_c$			**-0.001**			**0.003**
			(0.014)			(0.016)
BC_{cit}*$ADRI_c$			**-0.227**			**-0.859**
			(0.394)			(1.516)
BC_{cit}*$OSOV_c$			**2.259**			**1.596***
			(1.477)			(0.961)
EPL_{ct}		**-0.036**	**0.245**		**0.040**	**0.008**
		(0.196)	(0.241)		(0.140)	(0.204)
$RuleofLaw_c$			**0.269***			**0.033**
			(0.146)			(0.288)

$Gdpg_{ct}$			**0.321****			**0.184**
			(0.149)			(0.165)
$SoCM_c$			**0.014**			**0.004**
			(0.010)			(0.010)
$ADRI_c$			**0.339**			**0.611****
			(0.216)			(0.309)
$OSOV_c$			**-0.058**			**0.184**
			(0.447)			(0.455)
SIZE	**-0.087***	**-0.086***	**-0.112****	**-0.070**	**-0.080***	**-0.109***
	(0.047)	(0.044)	(0.049)	(0.049)	(0.047)	(0.056)
BM	**0.438*****	**0.365*****	**0.359*****	**0.422*****	**0.366*****	**0.352*****
	(0.088)	(0.093)	(0.090)	(0.101)	(0.106)	(0.108)
YIELD	**0.248**	**0.146**	**0.144**	**0.261**	**0.151**	**0.155**
	(0.161)	(0.117)	(0.125)	(0.168)	(0.126)	(0.134)
RET2-3	**0.842****	**0.817****	**0.701***	**0.559**	**0.610**	**0.410**
	(0.398)	(0.385)	(0.373)	(0.448)	(0.451)	(0.453)
RET4-6	**0.812****	**0.691***	**0.592***	**0.396**	**0.305**	**0.253**
	(0.399)	(0.379)	(0.348)	(0.394)	(0.389)	(0.387)
RET7-12	**0.939*****	**0.963*****	**0.819*****	**0.787*****	**0.909*****	**0.746****
	(0.269)	(0.273)	(0.269)	(0.249)	(0.257)	(0.295)
VOL	**0.046**	**0.046**	**0.065**	**0.024**	**0.033**	**0.046**
	(0.042)	(0.042)	(0.045)	(0.044)	(0.045)	(0.050)
PRC	**0.114**	**0.107**	**0.107**	**0.251****	**0.267****	**0.273****
	(0.082)	(0.090)	(0.096)	(0.110)	(0.113)	(0.126)
Constant	**0.806**	**0.795**	**-4.609*****	**0.595***	**0.502**	**-3.020**
	(0.541)	(0.604)	(1.764)	(0.325)	(0.441)	(2.400)
Month fixed effects	included	included	included	included	included	included
Avg. R^2	0.048	0.051	0.084	0.039	0.041	0.060
Number of obs.	2,713,161	2,606,725	2,531,711	2,635,453	2,543,892	2,474,370

Table 7 (Cont'd)

Panel B: Measuring labor market flexibility with EFW

This table reports results of firm-level cross-sectional regressions based on Fama-MacBeth's (1973) method in a given month *t*:

$$Return_{ci} = \beta_0 + \beta_1 BC_{ci} + \beta_2 BC_{ci} \times EFW_c + \beta_3 BC_{ci} \times CountryControls_c + \delta_1 EFW_c + \delta_2\, CountryControls_c + \delta_3\, FirmControls_{ci} + \varepsilon_{ci}$$

where $Return_{ci}$ is either the raw return (R_{ci}) or the market-adjusted return (i.e. the raw return in excess of the market return) for firm *i* in country *c* in the given month *t*. BC_{ci} is a dummy variable that equals one if firm *i* has been included in the most recent BC list in country *c* prior to the given month *t*, and zero otherwise. EFW_c is the labor market flexibility indicator for country *c* at the given month *t* and is calculated as the average score of six indicators on hiring regulations and mini wage, hiring and firing regulations, centralized collective bargaining, hours regulations, mandated cost of worker dismissal, and military conscription obtained from the Fraser Institute's Economic Freedom of the World database. $CountryControls_c$ indicate the following country-level control variables for country *c* at the given *t*: $RuleofLaw_c$ measures the law and order tradition from LLSV (1997); $Gdpg_c$ measures the GDP growth taken from the World Bank; $SoCM_c$ measures the size of capital market, specifically the number of listed domestic firms per (million) capita from LLSV(1997); $ADRI_c$ measures anti-director rights index corrected by Spamann (2010); $OSOV_c$ measures one-share one-vote from LLSV (1997). $FirmControls_{ci}$ include the following variables: *SIZE* is the log of firm *i*'s market capitalization at the end of month *t-2*. *BM* is the log of firm *i*'s book-to-market ratio at the end of month *t-2*. *YLD* is firm *i*'s dividend yield as measured by the sum of all dividends paid over the previous 12 months prior to month *t*, divided by the share price at the end of month *t-2*. *RET2-3* is the log of one plus firm *i*'s cumulative return over months *t-3* through *t-2*. *RET4-6* and *RET7-12* are defined similarly. *VOL* is the log of firm *i*'s dollar trading volume in month *t-2*. *PRC* is the log of firm *i*'s price at the end of month *t-2*. FE_t refers to month fixed effect. The reported coefficients are the time-series average of the monthly coefficients. Standard errors are displayed in parentheses below, adjusted for heteroscedasticity and autocorrelation (Newey and West (1987)). ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively. The sample is from January 2002 to December 2013.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variables		Raw returns			Market-adjusted returns	
BC_{cit}	**0.647*****	**-0.548**	**-0.788**	**0.627*****	**-0.595**	**-0.539**
	(0.105)	(0.467)	(0.628)	(0.145)	(0.595)	(0.685)
BC_{cit}*EFW_{ct}		**0.137****	**0.338****		**0.148****	**0.760*****
		(0.061)	(0.147)		(0.074)	(0.222)
BC_{cit}*$RuleofLaw_c$			**-0.324**			**-0.399**
			(0.254)			(0.325)
BC_{cit}*$Gdpg_{ct}$			**-0.116**			**-0.417****
			(0.155)			(0.200)
BC_{cit}*$SoCM_c$			**-0.013**			**-0.036****
			(0.018)			(0.018)
BC_{cit}*$ADRI_c$			**0.436**			**0.119**
			(0.395)			(0.412)
BC_{cit}*$OSOV_c$			**0.150**			**1.607***
			(0.763)			(0.866)
EFW_{ct}		**-0.090**	**-0.131**		**-0.040**	**-0.025**
		(0.089)	(0.116)		(0.060)	(0.116)
$RuleofLaw_c$			**0.224**			**0.159**
			(0.145)			(0.144)

$Gdpg_{ct}$			**0.249****			**0.061**
			(0.120)			(0.118)
$SoCM_c$			**0.005**			**-0.003**
			(0.015)			(0.015)
$ADRI_c$			**0.128**			**0.312**
			(0.187)			(0.292)
$OSOV_c$			**-0.056**			**0.055**
			(0.414)			(0.339)
SIZE	**-0.118*****	**-0.095****	**-0.119*****	**-0.088****	**-0.076***	**-0.079***
	(0.045)	(0.048)	(0.043)	(0.044)	(0.043)	(0.042)
BM	**0.509*****	**0.499*****	**0.505*****	**0.551*****	**0.544*****	**0.544*****
	(0.069)	(0.067)	(0.058)	(0.072)	(0.071)	(0.073)
YIELD	**0.030**	**0.026**	**0.022**	**0.012**	**0.008**	**-0.000**
	(0.021)	(0.020)	(0.016)	(0.021)	(0.018)	(0.014)
RET2-3	**0.670**	**0.642**	**0.562**	**0.443**	**0.410**	**0.303**
	(0.426)	(0.404)	(0.382)	(0.452)	(0.446)	(0.453)
RET4-6	**0.291**	**0.331**	**0.271**	**0.040**	**0.057**	**-0.041**
	(0.397)	(0.379)	(0.350)	(0.406)	(0.405)	(0.416)
RET7-12	**0.953*****	**0.964*****	**0.705****	**0.762*****	**0.777*****	**0.616****
	(0.322)	(0.314)	(0.287)	(0.264)	(0.271)	(0.302)
VOL	**0.054***	**0.048***	**0.057***	**0.028**	**0.024**	**0.016**
	(0.030)	(0.029)	(0.033)	(0.035)	(0.034)	(0.033)
PRC	**0.085**	**0.106**	**0.077**	**0.190***	**0.196***	**0.202***
	(0.086)	(0.096)	(0.091)	(0.110)	(0.110)	(0.115)
Constant	**0.950**	**1.708**	**-1.197**	**0.578***	**0.920***	**-2.091**
	(0.612)	(1.098)	(1.672)	(0.302)	(0.529)	(1.492)
Month fixed effects	included	included	included	included	included	included
Avg. R^2	0.048	0.051	0.084	0.039	0.041	0.060
Number of obs.	2,057,738	2,057,738	1,976,594	2,006,911	2,006,911	1,931,259