

How Firms Transfer Financial Risks to Employees: Stock Price Volatility and CEO Power

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Abstract

Purpose - We investigate how firms transfer financial risks to employees in a form of flexible employment contracts and layoffs.

Design/methodology/approach - Based on the literature on the prevalence of shareholder value ideology and the associated ‘risk shift’, we examined how stock price volatility is associated with a firm’s use and hiring of nonstandard employees, and the number of employees lay-offed. We test our hypotheses using a longitudinal, multi-source, dataset of Korean firms from 2003 to 2011.

Findings - We found support for the relationship between stock price volatility and flexible employment contracts and layoffs after controlling for actual risks such as increased debt or decreased sales. However, we found that the relationship is moderated by the power of professional CEOs relative to that of shareholders, in that powerful CEOs are more likely to transfer the external risks, i.e. stock price volatility, to employees.

Research implications or Originality - This study contributes the emerging stream of literature that explore the effect of stock market pressures and governance structures on human resource management.

Keywords: CEO Power, Financial Risk, Staffing Strategy, Stock Market Volatility, Strategic HRM

JEL Classifications: G32, J21, M51

I. Introduction

Faced with heightened level of competition and rapid changes in the business world, organizations are searching for ways to improve flexibility. In particular, scholars have noted that employers are increasingly incorporating more variability, or risks, into employment systems through practices such as performance based pay and adjusting working hours (Cappelli, 1999; Jacoby, 1999; Lambert, 2008). Dynan and colleagues (2008) analyzed the Panel Study of Income Dynamics and found that since the 1970s, the standard deviation of hourly wage rates and work hours have increased by fifty-one percent and twenty-three percent, respectively. Jacob Hacker (2006) terms this phenomenon as the ‘Great Risk Shift’ suggesting that a greater pro-

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portion of economic risk has been transferred from corporations onto American households.

One source of power driving the 'risk shift' is the prevalent corporate mindset that firms should maximize shareholder value (Applebaum and Batt, 2014). Fligstein (1990/2001) noted that as shareholder value becomes the dominant business ideology and institutional configuration, organizations are increasingly subject to financial conception of control that emphasizes stock performance and short-term returns over alternative performance metrics such as growth and market share. Accordingly, a broad set of organizational activities including corporate control, and work and employment has been reshaped to reflect and comply with shareholder value orientation (Davis, 2009). Thus, the risk associated with financial markets is increasingly linked to the internal structure of organizations.

In line with Fligstein's argument, this paper examines the degree to which employment conditions are subject to external stock price volatility – measured as a systematic risk compared to the market index (Beta). Prior studies found that labor cost cutting strategies are often used to signal firms' commitment to shareholder value logic (Goldstein, 2012; McCall, 2004). The prevalence of shareholder value ideology in today's economic domain may make it natural for firms to transfer risks associated with stock price directly to employees. Thus, we first hypothesize that firms' stock price volatility will be associated with the extent to which employees' status is "at risk" – the use of contingent workers, the number of contingent workers hired in a given year, and the number of employees laid off in a given year.

We then turn our attention to organizational factors that filter the widespread of shareholder value ideology. In particular, we investigate the moderating effect of firms' internal governance practices. Governance practices can make a firm "particularly sensitive to certain institutional logics and less so to others" (Greenwood et al., 2011). In this study, we hypothesize that chief executive officers (CEOs) who exercise power in corporate decision-making process are more likely to transfer the financial risk to their employees in order to signal their commitment to pro-shareholder policies.

The contribution of this study is two-fold. First, we contribute to the limited research on the causes for increasing variability in employment conditions. We found that the firms have started to incorporate market volatility into their employment relations so that they are more likely to employ contingent workers when they perceive greater risks in the stock market. We are particularly surprised that the effects of stock market volatility holds even after controlling for actual risks such as increase in debt or decrease in sales. These results indicate that shareholder value has influenced not only major corporate events such as layoffs but also everyday workings of employment conditions. Second, we attempt to show that a firm's sensitivity to market volatility is dependent on the firm's commitment to shareholder value ideology. Although maximizing shareholder value became the dominant business logic, we found that firms with an active CEO are more proactive in transferring the external volatility to the internal organizing of employment relations.

II. Theory and Hypotheses

1. Nonstandard Employment and Layoffs

In order to accommodate increasing global competition and the associated uncertainty, firms are under greater pressure to push for more flexible work arrangement (Kalleberg, 2000).

Although non-standard work arrangements such as part-time work and contingent employment have existed throughout history (Peck, 1996; Summers, 1997), employers today are less willing to shield employees from external risks as they did in the past (Jacoby, 1999). Increasing popularity of these non-standard work arrangement signals firms' effort to enhance flexibility by externalizing employment which is in direct contrast with more traditional internal labor market where firms develop employee skills and protect them from the external labor markets (Pfeffer and Baron, 1988).

In this paper, we view nonstandard employment and layoffs as a firm's mechanism through which firms increase flexibility and transfer external risks to employees. Nonstandard employment may take various forms such as part-time, temporary, contingent, and contract work arrangements (Kalleberg, 2000). What is common among these form is that the nature of these work arrangements is generally short-term and unstable. For example contingent work is often defined as jobs with no "explicit or implicit contract for long-term employment or one in which the minimum hours worked can vary in a nonsystematic manner" (Polivka and Nardone, 1989). Although the quality of nonstandard jobs is debatable, such that some contract work often pays more than standard jobs while other jobs pay relatively poorly (Jacoby, 1999; Kalleberg et al., 2000), the primary purpose of using such work arrangements is that these arrangements enable firms to adjust labor costs more freely. Thus, we hypothesize that the greater employment of nonstandard work arrangements signals firms' motivation to transfer potential external risks to employees.

Layoffs also have been a popular restructuring and cost cutting tool (Palmon, Sun and Tang, 1997). What is interesting is that the primary reason for layoffs became a strategic, rather than necessity driven by recession (Smith and Walker, 2000). Past layoffs were exercised in response to the declines in earning or sales, or due to poor performance whereas more recent layoffs are often used as a preemptive measure to boost short-term financial results and stock prices (Downs, 1995; Smart, 1997). The bottom-line effects of layoffs or downsizing, however, is inconclusive at best. Worrell and colleagues (1991) reported that investors reacted negatively to layoff announcements while Palmon and colleagues (1997) showed investors considered layoffs as effective cost reduction tools only when the layoffs were resulted from improved efficiency but not due to adverse market conditions. Despite such mixed evidence, firms continue to perform layoffs and downsizing and the rate among Fortune 100 firms in the U.S. increased from less than 5 percent in 1979 to more than 40 percent in 1994 (Budros, 1997). One of the most cited reasons for such popularity of layoff or downsizing strategy is that these strategies convey a sign of "leanness" and "competitiveness" (McKinely, Sanchez and Schick, 1995). Business communities praise such strategy as desirable and legitimate with headlines such as "Wall Street Hails Beat of Walking Feet" (Reuters report, January 31, 1994) and "How Layoffs Pay Off" (Fortune, January 24, 1994). Budros (1997) noted that firms continue to engage in layoffs with the perception that layoffs are key to increase shareholder value.

In the next section, we will discuss an antecedents and a moderating factor that may be associated with firms' behavior of transferring external risks to employees: stock price volatility and the power of CEOs.

2. Stock Price Volatility

The agency theory of corporate control asserts that shareholders are the ultimate owners of the firm and managers, or agents of the shareholders, need to engage in activities that max-

imizes shareholder interests (Ahmadjian and Robbins, 2005; Davis and Thompson, 1994). Fligstein (1990/2001) noted that shareholder value orientation became the dominant institutional configuration for business organizations operating today. Shareholder value orientation is marked as financial conception of control that stresses on stock market performance and rate of return over other performance metrics such as growth and innovation. As a results, managing stock market outcomes have become one of the main responsibilities of management. Lazonick (2013) documented in detail how the financialization of the U.S. Corporation has diverted firms' focus from accumulating the productive foundations of economic growth to meeting Wall Street's expectations for quarterly earnings per share. In particular, he argue that companies have spent massive amount of profit on stock repurchases to "manage" their stock prices rather than investing in innovation and job creation.

Given the widespread emphasis on stock market performance, we hypothesize that stock price volatility will be transferred to internal organizing of a firm, especially the structure of employment systems. Stock price volatility is a measure of the dispersion of returns for a given stock price and it refers to the amount of uncertainty or risks about the size of changes in a security's value (Investopia). Higher volatility value means that the stock price of a firm changes dramatically over a relatively short time period (either increase or decrease) whereas lower volatility means that the stock price is stable and steady. Thus, stock price volatility represents the level of uncertainty that a firm faces in the stock market.

Prior studies have found that volatility in equity markets or equity ownership is positively associated with management decisions that pursue flexibility and short-term gains. Black, Gospel, Pendelton (2008) reported that countries with active equity market also have shorter job tenure, higher activity rates (the ratio of employment to population of working age), and greater employment change over the cycle. The authors suggest that equity market pressures force managers to pursue labor flexibility and (indirectly) induce labor market deregulations to assist firms. Liu and colleagues (2014) also found that a firm's capital structure is associated with the firm's investment in strategic human capital. In particular, share turnover, the volatility in the ownership of share, is negatively associated with the firm's investment in firm-specific training. Similarly, Bange and De Bondt (1998) and Bushee (1998) found that share turnover was negatively associated with R&D expenditure.

In line with prior research, we hypothesize that higher stock price volatility and the associated uncertainty push firms to adopt more flexible workforce arrangement and to reduce fixed labor costs by engaging in layoffs. Managers facing higher fluctuation in stock prices may be more willing to employ nonstandard employees in order to be able to respond changes more quality whereas stable stock prices enable them to have a longer-term perspective on how to organize their labor force. Although an emerging body of research noted that stock market pressures may have critical impact on labor management (Armour, Deakin and Konzelmann, 2003; Blair 1995; Cappelli et al.,1997; Gospel and Pendleton 2003), no study to our knowledge has tested the direct relationship between stock market activities and employment conditions.

H1: Stock price volatility is positively associated with the extent to which firms employ nonstandard workers.

H2: Stock price volatility is positively associated with the extent to which firms hire new nonstandard workers.

H3: Stock price volatility is positively associated with the extent to which firms exercise layoff.

3. Moderating Effect: The Power of CEOs

With the growing pressure of financialization on everyday workings of corporations, managers are highly subject to the ideology of maximizing shareholder value in order to keep their own jobs (Davis and Thompson, 1994). In addition, the rise of compensation mechanisms that attempt to align the interests of managers and shareholders, notably stock options, which increased executive compensation to a record-high level, made “maximizing shareholder value” a very profitable business for corporate executives themselves (Ahmadjian and Robbins, 2005). Lazonick (2013) also noted that the firm’s attempt to boost stock price through massive stock buybacks allowed corporate executives to be one of the prime beneficiaries through their stock-based compensation. Goldstein (2012) documented that, contrary to the general expectation that shareholder value ideology will put greater pressure on the management to be lean and efficient, the actual number of management positions and the valuation of management labor in terms of managerial earning steadily increased from 1984 to 2001.

The central argument of agency theory is that managers’ interest should be aligned with those of shareholders through greater monitoring and control of managers and through stock based compensation system (Jensen and Murphy, 1990). Critics claim that these mechanisms to align interests of managers and shareholders lead managers to act as “self-interested shareholders, with an obsessive concern for short-term profits, rather than as professionals acting in the best interests of the organization” (Liu et al., 2013, emphasis in original). What is unclear in both of arguments, however, is that whether shareholders are always in the pursuit of short-term gains at the expense of long-term profitability. Stout (2012) noted that not all shareholders are short-term speculators and some holds their stocks for decades and worry about the company’s long-term future. In addition, some evidence exists that investors pay attention to the causes of changes in organization rather than unanimously praise any types of cost-cutting activities. Palmon and colleagues (1997), for example, showed that layoff decisions due to adverse market conditions, such as demand declines or input price increases, was associated with negative stock returns while investors considered layoff decisions as effective only when they were resulted from unexpected efficiency gains.

Thus, it is possible that the CEOs’ perception of shareholder value, whether it is short-term or long-term, may an important driver in transferring external risks to employees. In this case, flexible work arrangements are the results of CEOs’ willingness, rather than shareholder value ideology per se, to adopt such arrangements as a mechanism to show their commitment to maximizing shareholder value which will ultimately lead to their own gains. In fact, the business outlets are replete with anecdotes that CEOs who lay off thousands reap millions of dollars as their own compensation. A report by the Institute of Policy Studies documented that CEOs of the 50 U.S. firms that cut the most jobs between November 2008 and April 2010 earned compensation 42-percent higher than the average CEO pay at S&P 500 firms. Among the 50, 36 layoffs were announced at a time of positive earnings reports, suggesting a trend of “squeezing workers to boost profits and maintain high CEO pay.” More recently, Verizon announced 1,700 job cut in 2012 after paying its chief executive Lowell C. McAdam more than \$22.5 million in 2011.

Prior studies have found that CEO power is an important factor for organizational outcomes. CEO power is not only associated with stock market returns (Adams, Almeida and Ferreira, 2005) but it is also the moderator between board's composition and strategic change (Haynes and Hillman, 2010) and performance outcomes (Combs, Ketchen, Perryman and Donahue, 2007). In this paper, we hypothesize that the power of CEO, measured as the level of involvement of CEO in everyday business operation, is the moderator between the stock price volatility and the extent to which firms transfer external risks to employment contract, in terms of employing and hiring nonstandard worker and exercising layoffs. The logic here is that, given that high volatility in stock prices signals stock markets' concern or uncertainty towards the operation of a firm, CEOs with stronger power are more likely to introduce flexibility in their employment systems than CEOs with weaker power in response to the high stock price volatility.

H4: The power of CEO moderates the relationship between the stock price volatility and the extent to which firms (a) employ nonstandard workers, (b) hire new nonstandard workers, and (3) exercise layoffs, in that powerful CEOs are more likely to transfer the external risk the employees.

III. Methodology

1. Data

We test our hypotheses using a longitudinal, multi-source, dataset of Korean firms from 2003 to 2011. Our sample consists of 180 firms listed on the Korea Exchange (KRX).

Employment data (the proportion of part-time, the degree of individual performance-based pay, availability of stock option) is gathered from Human Capital Corporate Panel (HCCP), a bi-annual employment data collected from a representative sample of Korean firms. We then merge HCCP with stock market volatility and shareholder value orientation data collected from Korea Investors Services (KIS) and Korean Corporate Governance Services (KCGS).

Our data provides an interesting setting where shareholder value receives a mixed evaluation. In 1997, Korea had experienced a catastrophic financial crisis and the International Monetary Fund (IMF) stepped in to the Korean economy, approving a three-year stand-by credit equivalent to 21 billion U.S. dollars (IMF, 1997). During this period, the IMF asked for a number of institutional and policy reforms including transparent financial system, reducing moral hazard, transforming corporate governance, promoting the liberalization of capital account transactions, and so forth (Kim, 2006). Traditionally, Korean firms were under the Chaebol system, a family controlled corporate groups (conglomerates). However, the IMF criticized its lack of transparency towards other minority shareholders, and thus advocated the adoption of shareholder-based business system. As a result, Korean economy is still in the process of reconciling stockholder-focused traditions with shareholder value ideologies. Thus, our sample provides a perfect setting to observe how shareholder value could be transmitted at the organizational level.

2. Variables

2.1. Dependent Variables

To test our hypotheses, we use three dependent variables reported by the HR administrators in a given firm. First, number of nonstandard workers (t) is the total number of workers without a standard employment contract. These workers include both white and blue collared workers in a given company. Second, we only account for the new hire of nonstandard workers in a given year (t) to investigate the influence of stock market volatility occurred in $t-1$. Lastly, downsizing measures the number of lay-offed employees in a given year t (both standard and nonstandard employees).

2.2. Independent Variables

Stock price volatility (Beta): One measure of the relative volatility of a particular stock to the market is its beta. In finance research, beta estimated by linear regression,

$$r_a \approx \alpha + \beta r_b \quad (1)$$

where r_a is the return of the asset and r_b is return of the benchmark. From this linear equation, we get a common expression for beta as

$$\beta = \frac{\text{Cov}(r_a, r_b)}{\text{Var}(r_b)} \quad (2)$$

In short, a beta approximates the overall volatility of a security's returns against the returns of a relevant benchmark (usually the S&P 500 is used). For example, a stock with a beta value of 1.1 has historically moved 110% for every 100% move in the benchmark, based on price level. Conversely, a stock with a beta of 0.9 has historically moved 90% for every 100% move in the underlying index. In this paper, we use a one year lagged beta ($t-1$) to measure financial risks.

The power of the CEO is a binary variable indicating how much a professional CEOs exercise power in managerial decision-making process. We measured if managerial decision is mostly made by either owners (coded as 0) or by the professional CEOs (coded as 1).

2.3. Control Variables

We control for firms' size and age. A firm's size is measured in two ways; 1) asset size and 2) the total number of employees. These measures are logged as they are highly skewed. We also control for whether the owner of a firm is Chaebol (coded as 1) or not (coded as 0). Based on the findings from Ahmadjian and Robbins (2005), we control for the effect of foreign ownership. The foreign ownership is measured by the percentage of stocks owned by foreign individuals or corporations. In addition, we control for firms' financial performance and debt status by including the increase in sales and debt. As we investigate the effect of financial risk at time $t-1$, these variables are also lagged at $t-1$. Moreover, to adjust the effect of the union, we control for the presence of a formalized union in a given firm. Following the argument that stock option practices facilitates transmitting shareholder values (Jensen and

Murphy, 1990), we control for the manifestation of a stock option policy in a given firm. Lastly, to rule out the influence of firms' innovative culture on human capital, we control for R&D expenditure at time t-1.

Table 1. Descriptive Statistics and Correlations

	Mean	S.D.	1	2	3	4	5	6	7	8
# of temp workers	122.394	338.784	1							
# of newly hired temp workers	37.540	118.123	0.574*	1						
# of downsizing	23.544	54.124	0.088	0.167	1					
Logged asset	19.907	1.674	0.423*	0.316*	0.119	1				
Logged size (# of employees)	6.396	1.171	0.448*	0.346*	0.173	0.805*	1			
Age	38.358	17.406	-0.047	0.001	0.051	0.012	-0.055	1		
Chaebol	0.680	0.466	0.046	0.117*	0.009	0.335*	0.278*	0.067*	1	
Foreign shareholders (%)	10.251	14.071	0.263*	0.237*	-0.114	0.412*	0.493*	-0.126*	0.129*	1
	Mean	S.D.	9	10	11	12	13	14	15	16
Lagged dept increase rate	18.255	48.914	1							
Lagged sales increase rate	13.741	38.750	0.430*	1						
Presence of union	0.941	0.235	-0.008	0.021	1					
Presence of stock option	0.106	0.308	-0.040	-0.029	-0.065	1				
Logged investment in R&D	14.355	2.229	0.001	0.014	0.163*	0.124*	1			
Lagged Beta	0.783	0.413	0.024	0.061*	-0.066	0.172*	0.180*	1		
CEO involvement	0.386	0.487	-0.065	-0.017	-0.042	0.036	0.178*	0.266*	1	
Time	4.272	2.481	-0.018	0.011	0.083	-0.041	0.049	0.118*	0.080	1

Note: In 8 industries, 1,240 observations 2003-2011.

IV. Analysis and Results

To test H1, H2, H4-(a) and H4-(b), we use zero-inflated negative binomial regression with robust standard errors as negative binomial is suited for handling overly dispersed count data (Hausman, Hall and Griliches, 1984). In addition, we encounter multiple cases where firms do not engage in non-standard hiring (zero hiring). For this reason, we use zero-inflated specification which allows us to analyze of zero outcomes and over dispersion of count data. Finally, we clustered the errors by industries to account for the non-independence among the errors.

Table 2. Results of Zero-Inflated Negative Binomial Regression Analyses for the Number of Flexible Workers

Variables	Model 1	Model 2	Model 3	Model 4
Logged asset	0.234** (0.055)	0.234** (0.028)	0.209** (0.025)	0.198** (0.026)
Logged size (# of employees)	0.647** (0.098)	0.631** (0.039)	0.628** (0.037)	0.618** (0.039)
Age	0.002 (0.002)	0.001 (0.004)	0.003 (0.004)	0.003 (0.004)
Chaebol	0.362+ (0.191)	0.296** (0.111)	0.238 (0.154)	0.249+ (0.138)
Foreign shareholders (%)	0.012 (0.013)	0.019 (0.012)	0.018 (0.011)	0.019+ (0.012)
Lagged debt increase rate	0.004** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)
Lagged sales increase rate	-0.002** (0.0002)	-0.002** (0.0003)	-0.002** (0.0002)	-0.002** (0.0004)
Presence of union	-0.284 (0.373)	-0.020 (0.166)	0.015 (0.157)	-0.011 (0.155)
Presence of stock option	-0.180 (0.123)	-0.151 (0.113)	-0.081 (0.100)	-0.051 (0.087)
Logged investment in R&D	-0.147 (0.106)	-0.168 (0.143)	-0.160 (0.134)	-0.155 (0.136)
Time	-0.0002 (0.021)	0.039 (0.032)	0.037 (0.033)	0.051+ (0.029)
Lagged Beta		0.221* (0.088)	0.198* (0.097)	-0.054 (0.211)
CEO involvement			0.255 (0.247)	-0.092 (0.174)
CEO involvement x Lagged Beta				0.441* (0.179)
Constant	-2.612+ (1.468)	-2.887 (1.829)	-2.609* (1.180)	-2.298+ (1.223)

Notes: 1. Robust standard errors in parentheses

2. Data are based on 1,240 observations in 8 industries over 2003-2011

3. ** p<0.01, * p<0.05, + p<0.10

In Table 2, model 2 shows that beta is positively associated with the extent to which firms employ nonstandard workers. Moreover, this relationship is moderated by the power of the CEO- model 4, supporting hypothesis 4-(a). In Table 3, we also find that firms experiencing unstable stock price are more likely to engage in hiring nonstandard workers after adjusting the effect of other control variables. As shown in Table 2, this association is moderated by the decision-making power of the professional CEO.

Table 3. Results of Zero-Inflated Negative Binomial Regression Analyses for Hiring Flexible Workers

Variables	Model 1	Model 2	Model 3	Model 4
Logged asset	0.061 (0.143)	-0.099 (0.130)	-0.195* (0.093)	-0.197+ (0.112)
Logged size (# of employees)	0.568** (0.112)	0.713** (0.173)	0.790** (0.143)	0.792** (0.150)
Age	0.018** (0.006)	0.018** (0.002)	0.018** (0.003)	0.017** (0.003)
Chaebol	0.750** (0.193)	0.446** (0.127)	0.332* (0.152)	0.347* (0.136)
Foreign shareholders (%)	0.014 (0.014)	0.022* (0.011)	0.011 (0.014)	0.014 (0.013)
Lagged debt. increase rate	0.001 (0.001)	0.002+ (0.001)	0.004** (0.0002)	0.003** (0.001)
Lagged sales increase rate	-0.007** (0.002)	-0.009** (0.002)	-0.008** (0.002)	-0.008** (0.002)
Presence of union	-0.455 (0.379)	-1.012 (0.751)	-1.259* (0.583)	-1.303* (0.606)
Presence of stock option	0.617** (0.106)	0.491** (0.161)	0.583** (0.111)	0.603** (0.097)
Logged investment in R&D	-0.037 (0.051)	-0.033 (0.115)	-0.038 (0.086)	-0.029 (0.086)
Time	0.045+ (0.023)	0.119** (0.024)	0.101** (0.038)	0.109** (0.037)
Lagged Beta		0.711** (0.165)	0.465** (0.116)	0.170 (0.197)
CEO involvement			0.851* (0.427)	0.334 (0.333)
CEO involvement x lagged Beta				0.541** (0.128)
Constant	-2.061 (2.434)	-0.143 (3.422)	1.716 (2.077)	1.820 (2.349)

Notes: 1. Robust standard errors in parentheses

2. Data are based on 1,240 observations in 8 industries over 2003-2011

3. ** p<0.01, * p<0.05, + p<0.10

Table 4. Results of Zero-Inflated Poisson Regression Analyses for Downsizing

Variables	Model 1	Model 2	Model 3	Model 4
Logged asset	0.019* (0.008)	0.022* (0.011)	0.043* (0.018)	0.061** (0.022)
Logged size (# of employees)	0.855** (0.011)	0.864** (0.018)	0.782** (0.030)	0.750** (0.039)
Age	-0.003** (0.0001)	-0.002** (0.0001)	0.002** (0.0003)	0.002** (0.0004)
Chaebol	-0.765**	-0.764**	-1.009**	-0.999**

	(0.016)	(0.022)	(0.030)	(0.029)
Foreign shareholders (%)	-0.032**	-0.033**	-0.028**	-0.029**
	(0.001)	(0.001)	(0.001)	(0.001)
Lagged debt increase rate	0.003**	0.004**	0.005**	0.005**
	(0.00001)	(0.00005)	(0.00001)	(0.00003)
Lagged sales increase rate	-0.003**	-0.004**	-0.004**	-0.004**
	(0.00006)	(0.00007)	(0.0001)	(0.0001)
Presence of union	-2.748**	-2.765**	-2.235**	-2.095**
	(0.938)	(0.911)	(0.803)	(0.756)
Presence of stock option	0.171**	0.175**	0.307**	0.323**
	(0.002)	(0.004)	(0.008)	(0.012)
Logged investment in R&D	-0.153**	-0.159**	-0.157**	-0.155**
	(0.002)	(0.004)	(0.005)	(0.006)
Time	0.143**	0.131**	0.122**	0.114**
	(0.001)	(0.002)	(0.001)	(0.0004)
Lagged Beta		0.142**	0.165**	0.092**
		(0.016)	(0.016)	(0.031)
CEO involvement			0.567**	0.402**
			(0.014)	(0.017)
CEO involvement x lagged Beta				0.212**
				(0.042)
Constant	2.416**	2.323**	1.594**	1.362**
	(0.804)	(0.766)	(0.563)	(0.487)

Notes: 1. Robust standard errors in parentheses

2. Data are based on 1,240 observations in 8 industries over 2003-2011

3. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Unlike the other hypotheses, we use zero-inflated Poisson regression to test H3 and H4-(b) as downsizing turned out to be such a rare event at least in the time period of our study. Standard errors are also clustered by the industry to account for the non-independence among the errors. In line with our other hypotheses, our results show that firms with high stock price volatility are associated with enacting employee lay-offs.

V. Discussion and Conclusion

While extant research on the influence of shareholder value ideology on employment condition proliferated, the transmitting process of the value has been largely blamed on the shareholders' short-term profit orientation. In line with shareholders' interests, we also find that stock market volatility has significant influence on firms' hiring decision of contingent workers and downsizing even after controlling for actual risks such as increased debt or decreased sales. However, we find that this relationship is strengthened not by the power of the shareholders but by the power of the professional CEOs. Our results imply that maximizing shareholder value is becoming the dominant business logic, but shareholders may not necessarily engage actively in downsizing or short-term employment contract. We suggest that firms with an active CEO may be more proactive in transferring the external volatility to the internal organizing of employment relations.

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