

CEO Dividend Protection

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This paper studies dividend protections on CEO unvested restricted stock and unexercised option grants. In a sample of S&P 500 CEOs in the period of 2000-2009, about half receive dividend protections on their equity-based compensation. Both the existence and the magnitude of the CEO dividend protection are positively associated with dividend payouts. For the subset of firms that adopt CEO dividend protection for the first time, the subsequent increase in dividends provide evidence on causality that CEO dividend protection leads to the changes in dividend policy. Furthermore, shareholders react positively when CEO dividend protection is introduced and negatively when it is abandoned. Results also show that large, mature, lower dividend-smoothing firms are more likely to grant dividend protection to CEOs. These findings generally conform to the hypothesis that CEO dividend protection helps to align the incentive of managers with shareholders' interests in dividend payouts.

JEL Classifications: G30, M52

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1 Introduction

This paper studies the “CEO dividend protection”, the provisions on equity-based compensation that entitled CEOs to receive dividends on their unvested restricted stock and unexercised stock option grants. Some of these dividend provisions might lead to controversy between shareholders and boards of directors, because CEOs receive dividends on shares that they might or might not earn.¹ Under this argument, CEO dividend protection represents rent extraction by powerful managers who are able to obtain extra compensation beyond the value of their human capital (Bebchuk and Fried, 2004). However, counterarguments suggest that CEO dividend protection may be part of an efficient incentive contract. Due to agency problems and managerial overconfidence, investors demand large, profitable and mature firms to pay out dividends because large-scale internal cash accumulation gives managers the opportunity to waste corporate resources (Rozeff, 1982, Easterbrook, 1984 and Jensen, 1986). Meanwhile, managerial incentives from their compensation contracts are not always fully aligned with shareholders’ interests in dividend payouts. When stock option grants are not dividend-protected, they might deter CEOs from paying out dividends (for example, Lambert et al. 1989; Fenn and Liang, 2001; Cuny et al., 2009), because they only value stock price appreciation but not total shareholder returns (which include dividends). Under this argument, CEO dividend protection might help to neutralize CEO’s disincentive in paying or increase dividends. In addition, CEO dividend protection can be used as a retention tool in the pay package design, because CEOs will have to weigh the possibility of losing the dividends if they do not stay through the vesting period.

This paper is one of the first to document the existence of CEO dividend protection and its relation with corporate payout policy, although the *lack of* dividend protection is often used in the literature as an explanation for the findings that executive stock option grants induces the reduction in dividend and total payouts and an increase in share repurchases². This paper

¹A Wall Street Journal article by Scott Thrum in 2006 questioned the legitimacy of dividends paid on unearned restricted shares. The article further raises the concerns on pay-for-performance and corporate governance related to CEO compensation, indicating dividends on unvested shares as “stealth compensation”.

²Prior literature has mostly focused on the relation between executive stock option grants and payout policies. Lambert et al. (1989) suggest stock option plans provide incentives for executives to reduce dividends, because most executive stock options are not dividend protected (Murphy, 1999). Bartov et al. (1998), Jolls (1998), Weisbenner (2000), Fenn and Liang (2001), and Cuny et al. (2009) show that executives holding stock options have incentives to avoid dividends and to favor share repurchases. Chetty and Saez (2005) and Brown et al. (2007) provide further evidence on the negative association between executive stock option holdings and the likelihood of a dividend increase following the dividend tax cut.

examines the CEO dividend protection for 372 non-utility and non-financial S&P 500 firms between 2000 and 2009, using a unique data set that is manually collected from annual proxy statements. I gather data about terms of the dividend protection on each restricted stock grant and stock options grant held by CEOs during the ten-year period. About half of CEOs receive dividends or dividend equivalents on their equity-based compensation. Forty-six observations receive dividend protection with estimated value exceeding \$1 million per year. However, in most of the cases the estimated payment on CEO dividend protection appears modest, with the mean estimated payment of \$171,086 which is less than 1% the value of total compensation for an average S&P 500 firm CEO.

Though the value of CEO dividend protection is not dramatic relative to total CEO compensation, its effect on corporate payouts is large. Overall, I find that controlling for firm-, industry-, and CEO-specific characteristics, CEO dividend protection is positively and significantly correlated with the level of dividend payouts. Dividend yield is 40 basis point higher for dividend-protected firms and a one-standard-deviation increase in dividend protection is associated with a 29-basis-point increase in dividend yield, which translates into about a 31% increase in annual dividend yield for a median S&P 500 firm. These findings are robust after accounting for different sub-samples, alternative measures of corporate payout policies, and potential selection bias.

Such a positive association between CEO dividend protections and firm dividend payouts is consistent with two alternative explanations. First, dividend protections may influence the dividend policy of firms. Alternatively, dividend protections may be adjusted based on a firm's dividend policy. To distinguish between these two hypotheses, I analyze (a) changes in dividends following the initial use and abandonment of CEO dividend protection; and (b) changes in CEO dividend protection following the dividend initiation. I find that prior to the initial use of CEO dividend protection, both industry-adjusted and matched-firm-adjusted percentage changes in dividend are close to zero and statistically insignificant. Following the adoption of CEO dividend protection, both measures for percentage change in dividend are positive and significant for up to two years after the introduction of CEO dividend protection. In contrast, dividend decreases after abandoning CEO dividend protection, although it is only statistically significant for the match-firm-adjusted measure but not for industry-adjusted measure. Using the subset of

dividend initiation, I find a large dispersion on when firms adopt CEO dividend protection for the first time. For firms that did provide CEO dividend protection during our sample period, two thirds of them have adopted CEO dividend protection before initiating dividends. Overall, these results support the first explanation that CEO dividend protection may influence a firm's dividend policy.

For insight into why firms provide CEO dividend protection, I estimate Probit regressions based upon the dividend-paying incentive, retention incentive, and managerial rent extraction hypotheses. I find that the large, mature, low dividend-smoothing firms are more likely to provide CEO dividend protections. The event study analysis shows that a positive market reaction to the adoption of CEO dividend protection while a negative market reaction to the abandonment events. However, the predictions related to retention incentive and rent extraction fail to receive support from the regression analysis..

The remainder of this paper is organized as follows. Section 2 reviews prior research on managerial dividend-paying incentives and corporate payout policies. Section 3 presents the sample and the data. Section 4 provides main results and Section 5 concludes.

2 Literature and hypotheses of CEO dividend protection

2.1 CEO equity-based compensation and corporate payout policy

Beginning with Lambert et al. (1989), a large literature examines executive stock option plans and corporate payout policies. Lambert et al. (1989) find a significant decrease in dividend level after the initial adoption of executive stock option plans. Weisbenner (2000), Fenn and Liang (2001), and Cuny et al. (2009) provide further evidence on a strong negative relationship between dividends and management stock options. Their findings follow from the observation that executive stock options are generally not dividend protected (Cook, 1987; Murphy, 1999; and Hall and Murphy, 2003). Without dividend protection, dividend payouts will reduce the value of options due to their effects on the stock price³. Therefore managers may have incentives

³Stock price usually drops on the ex-dividend date by approximately the amount of the dividend (Campbell and Berabek, 1955 and Barclay, 1987). In addition to the direct effect of dividend payment on stock price, the payment of dividends might also have a signaling effect on stock price, because there is a tendency for stock prices to increase when managers raise dividends, and to decline when they reduce them. However, Richardson (1986) and Lambert et al. (1989) suggest that the cumulative reduction in share price caused by payment of

to reduce dividends and substitute repurchases for future dividend increases⁴, since repurchase does not adversely affect the options' value. Bartov et al. (1998) and Kahle (2002) show that executive stock options increase the likelihood that a firm will repurchase. However, according to Fenn and Liang (2001) and Cuny et al. (2009), such option-induced dividend reductions are only partly offset by repurchases, resulting in lower total payout for firms with higher options usage. A causal link between executive option holding and dividend policy is established in Chetty and Saez (2005) by analyzing firms response to the large tax cut on individual dividend income enacted in 2003. Chetty and Saez (2005) show that firms whose top executives held fewer unexercisable stock options were much more likely to initiate dividend payments in the year after the reform.

Although restricted stock has become one of the largest components of executive compensation, few studies examine the direct link between restricted stock and payout policy. Jolls (1998) examines the relationship between repurchase and executive incentive compensation. She finds a strong positive relation between executive stock option grants and share repurchase but no relation between repurchases and restricted stock grants. Aboody and Kasznik (2008) focus on the relationship between dividends and both stock options and restricted stock grants after the 2003 dividend tax reform. They find that stock options deter executives from using dividends while restricted stock induces the use of dividends. They speculate that it is because option grants are not dividend-protected while restricted stock grants are. However, they do not provide data or direct analysis on dividend protection.

The only study that analyzes dividend protection directly is Arnold and Gillenkirch (2005), where they provide a theoretical framework to address the importance of dividend protection in stock option programs. They conclude that neither financial investment opportunities in the firm nor share repurchases are satisfactory substitutes for dividend protection. They further suggest that for the best interest of shareholders dividend protection should be included in the executive stock option program.

dividends dominates any signaling effects on share price. Section 4.5 examines the market reaction to dividend changes and provides evidence supporting Lambert et al. (1989).

⁴This argument assumes that the decrease in the value of options caused by the dividend payment is not compensated via some other components of executive compensation. According to Lambert et al. (1989), for the compensation adjustment to be effect, it has to be made ex post. If managers received ex ante increases in remuneration to compensate for their expected decrease in the value of options, they would still have incentives to decrease dividends ex post.

2.2 Hypotheses of the effects of CEO dividend protection

It is well established in empirical studies that the *lack* of dividend protection on executive stock option grants induces the reduction in dividend and total payouts and an increase in share repurchases. If CEO dividend protection exists, it should have a positive relation with the levels of dividend and total payout as well as the probability of dividend increase. Similarly, a negative association is expected between dividend protection and share repurchase.

2.3 Hypotheses of the use of CEO dividend protection

This subsection discusses three hypotheses of CEO dividend protection: dividend-paying incentive, retention incentive, and managerial rent extraction. The first two are consistent with incentive alignment and optimal contracting view while the last follows the managerial power approach.

Dividend-paying incentive

If the capital market is perfect and managers acted as perfect agents of shareholders, the Miller-Modigliani (1961) dividend irrelevance theorem would hold. Then the dividend policy does not matter and thus CEO dividend protection is irrelevant. However, in practice due to agency problems and managerial over-confidence, investors demand large, profitable and mature firms to make substantial ongoing distributions because large-scale internal cash accumulation gives managers the opportunity to waste corporate resources (Roze (1982) and Easterbrook (1984)). Dividends may also force managers to commit future cash flows to maintain a certain level of dividend payments, because investors penalize dividend reductions or omissions (Jensen (1986), Healy and Palepu (1988), Kallapur (1994)). Thus, the payment of dividends provides an implicit mechanism for monitoring the manager's actions.

Restricted stock and option grants are supposed to motivate managers to increase their efforts and to align their interests with shareholders. However, as shown in the literature, managerial incentives are not always fully aligned with shareholders' interests in dividend payouts. Specifically, when not dividend protected, restricted stock and option grants might deter executives from paying out dividends. Such dividend reductions are not fully offset by repurchases,

ending up with lower total payout. The dividend-paying incentive hypothesis suggests that CEO dividend protection should be provided to fully align managerial incentives with shareholders' interests in dividend payouts.

Empirically, dividend-paying incentive hypothesis predicts that the use of CEO dividend protection is positively associated with shareholders' demand for paying dividend and negatively related to the dividend-smoothing. In addition, CEOs who are heavily compensated through restricted stock and option grants rather than cash compensation and unrestricted stock are in most need for dividend protection, since the value of cash compensation and unrestricted stock does not suffer from paying dividends. Importantly, shareholders should react positively to the initial use of CEO dividend protection. Furthermore, there could be a positive association between the independent compensation committee and the provision of CEO dividend protection, because the pay setting is more efficient if the compensation committee is independent (Rosenstein and Wyatt, 1990 and Bebchuk et al., 2010).

Retention incentive

The retention of key executives is critical to business success. The departure of a CEO can be a serious setback for business continuity and performance, and more so if he or she joins a competitor or starts a competing firm. Therefore in addition to the performance incentive, firms are also trying to design pay packages that keep CEOs from leaving. Restricted stock and stock option grants are most commonly used tools, since they incentivize executives on performance while at the same time providing a retention hook through vesting and holding conditions. However, if the share price falls below the exercise price, options have no value and thus lose effectiveness as a retention tool. The retention power from restricted stock might also be rather low particularly in volatile markets.

The retention incentive hypothesis predicts that firms with high stock price volatilities, high proportions of CEO pay in the form of restricted stock and option grants, and high expected future dividend payouts, and lower excess pays are more likely to provide dividend protection. Because dividend protection can enhance the retention power of restricted stock and option grants especially when the stock price is volatile. Besides, the retention incentive from dividend protection will only make sense to CEOs if the value of their restricted stock and option grants

are the major components of their compensation package and if the expected future dividend payouts are high. If the level of excess pay is high, then retention incentive from the CEO compensation is already strong and therefore no need to provide extra retention incentives through dividend protection. Finally, the retention incentive is stronger if the payment on dividend protection is accumulated and only paid out at the end of vesting period.

Rent extraction

According to the portrayal of dividend protection in the news media⁵, a further hypothesis of executive dividend protection is that it represents rent extraction by powerful managers who use their influence and power over internal pay-setting processes to obtain excessive pays (Bebchuk and Fried, 2004). Minnick and Rosenthal (2012) study the dividend protection on CEO restricted stock grants using the data from 2003 to 2007. They find that firms that allow dividends to be paid on unvested restricted stocks grants have higher dividend payout ratios, but they argue that dividend protection is a form of stealth compensation.

The main empirical predictions of the rent extraction hypothesis would be that dividend-protected CEOs have higher prior excess compensation and longer tenures while lower quality of corporate governance in their firms. The reason is that CEOs with higher prior excess compensation and longer tenures are more likely to be powerful CEOs. Poor corporate governance might allow CEOs to influence the pay-setting processes and thus extract rents. In addition, the theory suggests that dividend protection should be delivered in a non-transparent form, since boards might want to conceal from shareholders payments representing unearned economic rents. Last but not the least, the concern of rent extraction should be stronger for the immediate payment of dividend protection, since CEOs whose dividend protection are accumulated and may be forfeited at the end of vesting period would appear to lack power to extract rents.

⁵Dividends paid on unvested shares are considered as inappropriate and “stealth compensation” by Scott Thrum (Wall Street Journal article in 2006)

3 Sample and data description

3.1 Sample selection

To construct my sample, I begin with a panel of S&P 500 firms for the period of 2000-2009. I start with the year 2000 because the use of restricted stock was not popular before. More than half of my sample has never granted any restricted stock to their CEOs before 2000⁶. Frydman and Jenter (2010) show that restricted stock grants account for an average of 5% of total CEO compensation in the early 1990s and increased to 7% in 2000. However, after the stock market decline of 2000-2001, some firms started to replace option grants with restricted stock grants. In 2004, FASB adopted an accounting change by requiring a charge against earnings for stock option grants. Therefore, the previous accounting advantage for stock options has been eliminated. Since the new rule, firms have tended to cut back the number of stock options granted and have replaced them with restricted stock. According to Frydman and Jenter (2010), restricted stock has become the most popular form of equity-based compensation by 2006.

After merging the data from Compustat and Execucomp, I obtain a sample of 4,258 observations for 482 firms. Following the prior literature, I further exclude financial firms (SIC 6000-6999), utilities (SIC 4900-4999), and regulated phone companies (SIC code 4813), because their payout policies may be significantly affected by their regulated status (Smith and Watts, 1992; Fenn and Liang, 2001). My final sample contains 3,527 observations for 372 firms across 10 years.

3.2 Measuring dividend protection

3.2.1 Data collection from proxy statements

I use SEC's EDGAR system and manually collect dividend provisions on restricted stock and option grants from companies' annual proxy statement⁷. Such information can usually be found in the following places of proxy statement: a) compensation philosophy and elements of compensa-

⁶This is consistent with Murphy (1999) who documents that only 28% of S&P 500 firms granted restricted stock to their CEO in 1996 and those grants account for an average of 6.1% of total compensation. Blouin and Cater (2010) also show that 20% of ExecuComp firms grant restricted stock in 1992 and the value of these restricted stock grants accounts for 3% of the total compensation.

⁷Proxy statements are not available or information on executive compensation is missing in less than 5% of the time. In most of these cases, I found the relevant information in the company's annual report.

tion for executive officers in the Compensation Discussion and Analysis section; b) the footnote of the Summary Compensation Table; 3) the footnote of the Outstanding Equity Awards at the Fiscal Year-End (only for proxy statement filed after 2006); d) the company's Long-Term Incentive Plan in the appendix⁸. Specifically, I collect the following information for each individual grant held by CEOs during 2000-2009.

1. Does the firm offer incentive compensation, such as restricted stock, option, and long-term incentive equity plans, to the CEO?
2. Does the firm provide dividends on stock or options during the vesting period?
3. If so, are dividends paid at the same time as to other shareholders or accumulated and paid out only upon vesting? Are they paid in cash or in an equivalent amount of additional restricted stock?
4. Does the firm grant voting rights on executives' unvested incentive grants?
5. Is the incentive award contingent on any criteria, such as performance and time?

Table 1 provides an overview of the information collected from proxy statements following the above procedure⁹. I focus specifically on restricted stock and option grants but not other compensation components that are not sensitive to changes in dividend distribution. For example, executives who hold unrestricted stock are entitled to all shareholder rights, including the right to receive dividends, and thus do not suffer from paying out dividends¹⁰.

[Insert Table 1 about here]

Consistent with Frydman and Jenter (2010) and Blouin and Carter (2010), I find an upward trend for restricted stock grants compared to a downward trend for option grants as shown in Table 1 Panel A and B. The percentage of firms that grant restricted stock to CEOs increases sharply from 22% in 2000 to 68% in 2009. However, the percentage of firms that use executive

⁸The full text of the Long-Term Incentive Plan is not available every year, but whenever the old Plan is amended/restated or when a new plan is made the full text will be included in the appendix. For my sample, on average firms amend their Long-Term Incentive Plan more than twice for a ten-year period.

⁹More than 98% of my sample firms disclose dividend arrangements on restricted stock and option grants in their proxy statements.

¹⁰Another explanation might be "mental accounting". When stock grants are earned, they are treated as wealth while unearned restricted stock is treated as income.

option grants decreases slightly from 83% to 73%. Before 2005, majority of restricted stock grants offer dividend rights that entitle the CEOs to be paid at the same rate and at the same time as cash dividends are paid to common stockholders (“immediate pay”). After 2005, more and more firms offer dividend rights that accumulate the dividend payments either as cash in a special account or as additional restricted stock that is subjected to the same restriction as the restricted stock grant (“accumulation”). In addition to dividend rights, some firms also provide voting rights on unvested restricted grants. While a large majority of firms offer dividend protections on restricted stock grants, less than 1% of firms provide dividend protections on option grants. In fact, I find in total 4 firms for the period of 2000-2009 that have provided dividend rights on options¹¹.

Panel C provides an overview of dividend rights on restricted stock grants across industries, classified based on the Fama-French 12 industry definitions¹². On average, 45% of firms-year observations grant restricted stock to CEOs, ranging from 34% in business equipment to 61% in energy sector. For firms that use restricted stock grants, about 79% (35% divided by 45%) on average provide dividend protections, with the highest in durables and the lowest in health sector. I divide the sample into two sub-samples based on whether the firm has paid out any dividend during the past 10 years. On average, 49% of dividend paying firms grant restricted stock to CEOs which is much higher than that of 28% in non-dividend firms. Among those firms that use restricted stock grants, on average 82% (41% out of 49%) of dividend paying firms provide dividend protections compared to 59% (17% out of 28%) of non-dividend firms.

3.2.2 The dividend protection variable

First, we construct a dummy variable which equals one if at least some parts of CEO restricted stock and/or option holdings are dividend-protected. The underlying argument for the dividend protection dummy variable is that as long as there is a dividend protection, no matter how large the proportion of compensation is protected, CEOs are less reluctant to pay out dividends.

¹¹This number is consistent with prior research. Murphy (1999) finds 7 out of 618 firms in year 1992 provided dividend protection on their executive stock options while Weisbenner (2000) finds 2 out of 799 firms in 1994. Cuny et al. (2009) report only one firm that explicitly mentions the use of a dividend-protected option plan after searching all 10-K statements over the period 1992–2005 for the term “dividend protected” and variations thereof.

¹²Due to rare incidence, dividend rights on option grants are not shown here. For those 4 firms that provide dividend protection on option grants, we have one from manufacture, one from energy, and two from others.

Second, we have a scale variable which measures to what extent the CEO's restricted stock and option holdings are protected against the potential loss from paying dividends. It is estimated as the value of CEO restricted stock and option holdings that are dividend-protected divided by the total value of restricted stock and option holdings. If dividend protection (%) equals one, it means that the CEO is fully protected and thus neutral on paying dividends. If dividend protection (%) is zero, then the CEO is not entitled to the dividends on any of her restricted stock or option holdings.

I consider holdings rather than new grants awarded in a specific year, because executives often held more than one grants from previous years which are still under restrictions. Counting only new grants will underestimate executives' potential losses in their equity compensation from paying dividend¹³. I take values rather than the number of holdings, because per unit value of restricted stock is different from that of stock options. Specifically, the value of restricted stock holdings is the sum of values of all restricted stock grants, calculated as the number of restricted stock holding multiplied by the stock price at the fiscal year end. The value of option holdings is the sum of the Black-Scholes values of all option grants held by the CEO. When a CEO holds no restricted stock or options, which is less than 2% of the sample, her compensation is not subject to the potential loss from paying dividends. In such a case, I set the dividend protection variable equal to one. In section 4.2, the results are replicated for CEOs that have positive restricted stock or option holdings. This does not qualitatively change my conclusion.

[Insert Table 2 about here]

Table 2 presents the summary statistics for 3,527 firm-year observations. In sample of S&P 500 non-financial non-utility firms, 49.8% (1,702 firm-year observations) provide dividend protection on CEO restricted stock and option holdings. The mean dividend protection (%) is 17% and the median is zero. The number may seem small, however these are the mean and median for the full sample, including firms which do not grant restricted stock or options. If we only look at firms that do provide CEO dividend protection, on average 41% of CEO restricted stock and option holdings are protected against the potential loss from paying dividends. In addition,

¹³For my sample, on average a CEO holds \$27 million of restricted stock and options, of which \$8.6 million are for new grants. It's plausible to assume that CEOs care about all grants they currently hold rather than just new grants awarded in current year.

I also estimate the cost for firms to provide such dividend protections, which is untabulated in order to save space. The estimated cost is calculated as the number of restricted stock and options that are dividend protected multiplied by the dividend per share for the particular firm of a particular year. The mean (median) estimated payment on dividend protection is \$171,086 (\$52,648) per year¹⁴.

3.3 Measuring payout policy

Following the earlier literature, I use the dividend yield to study dividend policy. For the main results reported in this paper, dividend yield is defined as dividend by the market value of the common stock at year-end, where dividend is defined as total dollar amount of dividends declared on the common stock of a firm during the year. I further check all annual dividend payments that exceed 5% of the market value to ensure they reflect normal payouts and not events such as leveraged recapitalizations or liquidations. I find 5 such special dividends out of 3,527 observations. This small number is consistent with Fenn and Liang (2001) who find 4 out of 4,663 observations during the period 1993-1997.

Following Grullon and Michaely (2002), repurchases are defined as total expenditure on the purchase of common and preferred stocks minus any reduction in the value of the net number of preferred stocks outstanding¹⁵. The total payout is defined as dividends plus repurchases. Similar to the dividend yield, both repurchase and total payout are normalized by the market value of equity for the main analysis.

To deal with potential outliers in dividend yield and repurchase yield due to very low stock prices, the measures are further winsorized at 99% levels. For robustness checks, dividends, repurchases, and total payouts are normalized by earnings and free cash flow, respectively. Doing so yields qualitatively similar results (see section 4.2). Summary statistics for the dividend payout policy variables are provided in Table 2.

Prior to investigating the relation between dividend protections and payout policy in a regression frame work, it is useful to look for a relation in the raw data. Figure 1 depicts such

¹⁴To calculate the estimated cost, I assume that none of grants is forfeited. This is a strong assumption, especially for restricted stock grants that accumulate dividend to be paid only upon vesting. Therefore, these numbers should be interpreted as the upper bound of the actual dividend payments on unvested equity grants.

¹⁵According to Grullon and Michaely (2002), this measure is very similar to the measure of repurchase activity reported by SDC, with the correlation coefficient of 0.97.

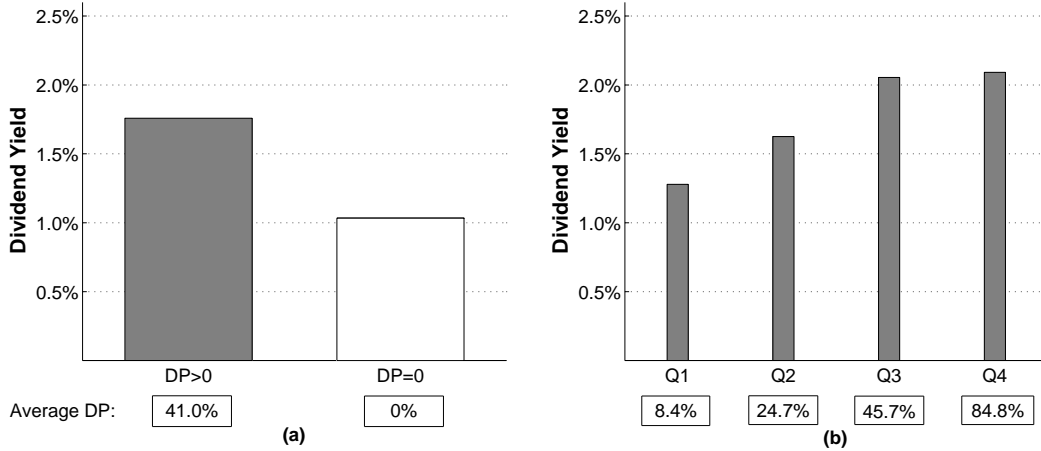


Figure 1: Dividend yield and the dividend protection (DP)

DP is the value of CEO restricted stock and option holdings that are dividend-protected divided by the total value of restricted stock and option holdings. Plot (a) compares the dividend yield for firms that provide dividend protections to their CEOs ($DP > 0$) with those that do not ($DP = 0$). Plot (b) focuses on dividend-protected firms and sorts them into four quartiles according to DP . The bars present the average dividend yield for each group. The average DP is presented in the text box below each group. The quartiles are sorted within a year and then aggregated across years. The sample consists of S&P500 firms for the period 2000-2009, excluding financial firms, utilities, and regulated phone companies.

an effort. First, I compare firms that provide dividend protections to their CEOs with those that do not. In plot (a), firms are partitioned into two groups within a year depending on whether dividend protection (%), denoted as DP , is larger than zero in the previous year. Then firms in each group are aggregated across years. For my sample, 49.8% of firms provide dividend protection while 50.2% of firms do not. The average dividend protection (%) is presented in the text box below each group. The dividend-protected group has on average 41% of their CEO restricted stock and option holdings protected against the potential loss from paying dividends. For the other group, by construction, dividend protection (%) is zero. On average, the annually dividend yield is 1.76% for the dividend-protected group and 1.03% for non-dividend-protected group.

Second, for the dividend-protected group, I further sort firms into four quartiles according to the proportion of CEO restricted stock and option holdings that are dividend protected. Again, the quartiles are sorted within a year and then aggregated across years within each quartile. The mean dividend yield is calculated for each quartile and shown in the text box below each

quartile numbers. By construction, there are an equal number of firms in each quartile. Plot (b) presents the mean dividend yield against the quartile's average level of DP . The plot shows a positive relation between the proportions of CEO restricted stock and option holdings that are dividend protected in a firm and the dividend yields of the firm in the raw data. The highest proportion of dividend protection corresponds to an average dividend yield of 2.09%, the lowest corresponds to an average dividend yield of 1.28%

3.4 Other explanatory variables

To control for the CEO equity-based incentive, I include the number of restricted stock holdings, the number of option holdings, and CEO stock ownership (stock held by the CEO as a percentage of total shares outstanding), using Execucomp database. Prior research shows that the number of restricted stock holdings is positively related with dividend payouts while option holdings have a negative effect. The findings on the relation of CEO stock ownership and dividends are mixed. Fenn and Liang (2001) find no effect of share ownership on payouts. Brown et al. (2007) find that executives with higher ownership were more likely to increase dividends after the tax cut in 2003, but no relation is found in period when the dividend tax rate was higher. Cuny et al. (2009) find a negative relation between executive stock ownership and total payout.

Prior literature suggests that firms are likely to have higher payouts if they are large, mature, profitable firms, and with a lot of cash flows. Following Fenn and Liang (2001), Brown et al. (2007), and Cuny et al. (2009), free cash flow ratio is calculated as operating income before depreciation minus capital expenditure divided by total assets. The market-to-book ratio, a proxy for investment opportunities, is calculated as total assets minus book value of equity plus market value of equity divided by total assets. To control for external financing costs, I use firm size, measured as the log of total assets. I also control for leverage, measure by total debt divided by total assets, and volatility of earnings, measured as the standard deviation of net operating cash flow scaled by assets. To count for past performance and growth, I construct the past three-year average of earnings per share, the lagged return on assets, and the growth in sales. Table 2 provides summary statistics for the variables described above. All numbers are similar to values reported in related studies, such as Fenn and Liang (2001), Brown et al. (2007), Aboody and Kasznik (2008), and Cuny et al. (2009).

4 Empirical Results

4.1 CEO dividend protection and corporate payouts

In this section, I examine the relation between the dividend protection on CEO compensation and corporate payout policies. To test the hypothesis that CEO dividend protection will be associated with higher dividend payouts, I use the following regression specifications:

$$PayoutPolicy_{i,t} = \alpha + \beta' DP_{i,t-1} + \gamma' X_{i,t-1} + \lambda' Y_t + \mu' I_i + \varepsilon_{i,t},$$

where $PayoutPolicy_{i,t}$ is a set of dependent variables, including dividend, repurchase and total payout (the sum of dividends and repurchases), all scaled by the market value of equity. $DP_{i,t-1}$ is a set of dividend protection measures, including dividend protection (dummy) and dividend protection (%). $X_{i,t-1}$ is a vector of control variables previously shown to affect payout that include CEO restricted stock holdings, option holdings, stock ownership, cash compensation, free cash flow, market-to-book ratio, firm size, leverage, volatility of earnings, past 3-year EPS, and the one-year lagged ROA. All explanatory variables are measured at the end of the previous fiscal year. To address the possibility that there are other omitted variables, I include year (Y_t) and industry (I_i) fixed effects. $\varepsilon_{i,t}$ is the error term. The null hypothesis is that β , the coefficient on CEO dividend protection, is equal to zero.

[Insert Table 3 about here]

To account for the possibility of correlations across observations of the same firm in different years, standard errors are clustered at the firm level. Results are reported in Table 3. The first principal finding is that CEO dividend protection is an important determinant of dividend policy. As shown in column (1) and (2), the marginal effects on both dividend protection (dummy) and dividend protection (%) are positive and highly significant. The coefficient of 0.40 on dividend protection (dummy) shows that dividend yield is 40 basis-point higher in dividend-protected firms than firms without CEO dividend protection. The marginal effect of 1.05 on dividend protection (%) indicates that that for a one-standard-deviation increase in dividend protection (%) is associated with a 29-basis-point ($1.05 \times 27\%$) increase in dividend yield, which translates into about a 31% increase in annual dividend yield for a median S&P 500 firm. Consistent with

the literature, the number of CEO option holdings is strongly and negatively related to dividend yield. Interestingly, the number of restricted stock holdings is also negative. This is different from the finding of Aboody and Kasznik (2008) of a positive relation between restricted stock grants and dividend yield. However, if we exclude dividend protection variables in column (1) and (2), we would also get positive coefficients on restricted stock holdings (coefficient of 0.037 and t -statistics of 0.25). This result suggests that the finding in prior research on the positive relation between the restricted stock and dividends might be due to the dividend protection, but not the granting of restricted stock itself.

In addition, I test if CEO dividend protection has any effect on repurchases and total payouts. I repeat the same analysis as in the specification (1) by replacing the dependent variable with repurchase and total payouts, both scaled by the market value of equity. The result shown in column (3) to (4) suggests that dividend protection has a negative effect on CEO's decision on repurchase but is only significant for one of these specifications. Column (5) and (6) shows that CEO dividend protection has a positive and significant effect on the total payouts.

Most of the control variables in the model specifications have expected signs. Dividend is highly related to the market-to-book ratio, being significant at 1% level, suggesting that firms with greater investment opportunities have lower dividend yields. The coefficients on proxies firm size (log assets) and and past performance (ROA) are positive and significant at 1%, indicating that larger and more profitable firms.

4.2 Robustness checks

4.2.1 Sub-samples

As shown in Figure 1(a), dividend-protected firms have higher dividend yield than non-dividend-protected firms. The findings on the positive relation between CEO dividend protection and payout policies might just pick up the difference between dividend-protected firms and non-dividend-protected firms, which are not captured by the control variables, rather than the effect of CEO dividend protection. To address this concern, I repeat the above analysis for dividend-protected firms only, which are about 49.8% of the sample. By construction, this robustness check can only be done for the scale variable, dividend protection (%), but not for dividend

protection (dummy). The results are summarized in the first row of Table 4 panel A. In this table, each number represents the marginal effect of DP on payout policy variables from a separate Tobit model. In each regression, I include all of the same control variables from Table 3, including the year and industry effects, but do not report the individual coefficients on those controls in the interest of brevity. The results suggest that dividend protection (%) is positively related to the dividend yield and negatively related to repurchases, but the effect of dividend protection on total payout is insignificant.

[Insert Table 4 about here]

Similarly, to show that dividend protection captures the cross-sectional variation in CEO dividend protection, rather than other factors such as the different payout policies and compensation structure across firms, I repeat Table 3 for several sub-samples based on whether firms pay dividends in the past ten years and whether their CEOs have restricted stock holdings and option holdings. The robustness analyses are done using both dividend protection (dummy) and dividend protection (%). First, I create a sub-sample of dividend payers by excluding all firms that have not paid out dividend in the past ten years. Second, I look at only those firms whose CEOs have positive restricted stock holdings, which are about half of the sample. Then I focus on firms whose CEOs have positive option holdings, which are more than 90% of the sample. The second row of Table 4 shows that the signs and magnitudes of coefficients for dividend, repurchase, and dividend payout ratio are similar to those in Table 3. In rows 3 to 4, I look at subsamples of firms whose CEOs have positive restricted stock holdings and positive option holdings, respectively. All these results suggest that CEO dividend protection is positively related to the dividend yield. However, its negative association with repurchases is only found using dividend protection (%) but not dividend (dummy). The overall effect of dividend protection on total payout is marginally positive for two subsamples using dividend protection (dummy).

Finally, since dividend protection (%) is constructed at the end of the previous fiscal year (with one-year lag relative to dividend yield), there is a concern that it does not accurately capture the CEO dividend protection when there is a CEO turnover. To address this concern, I repeat the above analysis for a sub-sample of firm-year observations with no CEO turnovers.

Again, the results show that both the sign and the magnitude of marginal effects on dividend protection are similar to the previous findings. However, the effects on repurchase and total payout is not robust.

4.2.2 Alternative measures for payout policy

So far till now, we scale all payout measures with market value of equity. However, there is a concern that the variations in payout policy measures comes from the changes in market value rather the payout policy itself. To address this concern, we can use different scaling such as earnings and the free cash flow. Panel B of Table 4 summarizes the Tobit regression results following specifications in Table 3, but carried out for alternative measures of payout policies. Only marginal effects and t-statistics of dividend protection variables are reported in the table. Again, we find a strong and positive relationship between CEO dividend protection and dividend payouts. However, the effect of dividend protection on repurchase and total payout is only marginally significant in one case where repurchase is scaled by free cash flow. Overall, the main finding of positive association between CEO dividend protection and dividend payout are robust to various subsamples and alternative measures of payout policies.

4.2.3 Heckman selection model

Providing CEO dividend protection is voluntary and firms can self select themselves into the sample of CEO-dividend-protected firms. I explicitly account for the selection bias, using a Heckman two-stage selection model where we first examine the decision to provide CEO dividend protection and then study payout policies of these firms.

[Insert Table 5 about here]

In the selection equation (first stage), some CEO-specific characteristics such as CEO stock ownership, cash compensation, and tenure, as well as industry dummies and year dummies are included to predict firms' propensity to provide CEO dividend protection. A Probit model is used to predict dividend protection (dummy) and a Tobit model is used to predict dividend protection (%). In the outcome equation (second stage), all the variables in Table 3 are included

with the inverse Mill's ratio (λ), except that dividend protection measure is replaced by the predicted dividend protection from the selection equation.

In Table 5, I report only estimates of the variables of interest from the second stage. Columns (1), (3) and (5) report the results from the Heckman-Probit model for dividend, repurchase and total payout, respectively, and the other columns contain the results from the Heckman-Tobit model. The results show that all of the estimated coefficients on the correction term for selection, the inverse Mill's ratio (λ), are insignificant. This exercise yields qualitatively similar results to those displayed in Tables 3, and they show that both the existence and the magnitude of CEO dividend protection a positive and statistically significant effect on dividend payout.

4.3 The timing of dividend protection and dividend changes

So far, I show that there is a positive association between CEO dividend protection and dividend payout policies. However, such a positive association is consistent with two alternative explanations. First, dividend protections may influence the dividend policy of firms. Alternatively, dividend protections may be adjusted based on a firm's dividend policy. To investigate the causality, I focus on two significant changes in dividend policy and CEO dividend protection. First, I look at the dividend changes around the time when CEO dividend protection is adopted or abandoned. Then I study firms that initiated dividends and examine when those firms provided CEOs dividend protection for the first time.

4.3.1 Dividend changes around the adoption and abandonment of CEO dividend protection

There are 65 cases of adopting CEO dividend protection and 39 cases of abandonment. Five adoption and four abandonment cases are excluded because they occurred simultaneously with either merger, acquisition, restructuring, or bankruptcy (filing Chapter 11). Firms that do not pay dividend at all are also excluded, leaving us with 45 cases of adoption and 26 cases of abandonment.

[Insert Table 5 about here]

Table 6 reports median dividend changes from three years before to three years after adopting or abandoning CEO dividend protection. Dividend changes are measured in three alternative ways, namely unadjusted change, industry-adjusted change, and matched-firm-adjusted change. Year 0 is the year when CEO dividend protection was adopted or abandoned. Unadjusted change is calculated as the percentage change in dividend per share from year i to year j . Industry-adjusted change subtracts the median for firms in the same industry based on the Fama-French 12-industry definitions. Matched-firm-adjusted change matches on firm size, firm age, one-year-lagged ROA, one-year-lagged dividend per share, CEO stock ownership, and industry dummies at year -1, using propensity score matching method (PSM).

Prior to the adoption of CEO dividend protection, the median percentage changes in dividend are close to zero and statistically insignificant for all three measures, except that unadjusted change is positive from year -1 to year 0. Following the adoption of CEO dividend protection, all three measures for percentage change in dividend are positive and significant for up to two years after the introduction of CEO dividend protection. Therefore, the evidence suggests that adopting CEO dividend protection leads to increase in dividend but not the other way round.

The evidence from abandoning CEO dividend protection is less clear. Using the unadjusted change measure, dividend keeps increasing from year -2 to +2, which is inconsistent with either CEO dividend protection may influence dividend payout or change in dividend leads to change in CEO dividend protection. None of the industry-adjusted measure is statistically significant. However, using the matched-firm-adjusted measure, dividend decreases sharply after abandoning CEO dividend protection from year 0 to year 1 and continues to decrease from year 2 to year 3, suggesting that changes in CEO dividend protection lead to changes in firms' dividends.

4.3.2 Changes in dividend protection around the dividend initiation

In total, there are 49 firms in our sample that initiated dividend during the period of 2000-2009, among which 24 have not provided any dividend protection on their CEO restricted stock and option grants. For the other 25 firms that did provide dividend protections during the period 2000-2009, 11 firms (44%) have already provided dividend protection to CEOs three years before the dividend initiation. Three firms provided CEO dividend protection two years prior to the year when dividend is initiated while two did so one year before. One firms granted dividend

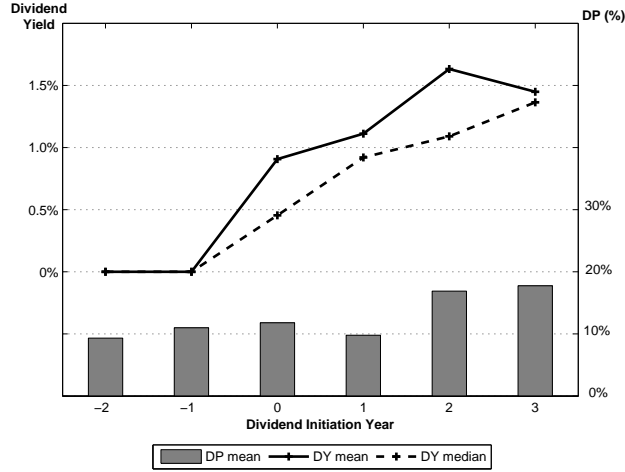


Figure 2: Dividend yield and the dividend protection (DP) around the year of dividend initiation. $DP(\%)$ is the value of CEO restricted stock and option holdings that are dividend-protected divided by the total value of restricted stock and option holdings. The solid (dashed) line shows the mean (median) dividend yield (DY). The bars present the average $DP(\%)$ for each group.

protection in the same year of dividend initiation while no firm did the year after. Four firms did so two years after dividend initiation and other four took more than two years. Figure 4.3.2 plots the dividend yield and CEO dividend protection (DP) around the year of dividend initiation. There is an increasing trend in the portion of CEO equity-based compensation that are dividend-protected. However, given the small sample, none of the changes from one year to another is statistically significant.

Overall, these results suggest that there is a large dispersion on when firms provide dividend protection to CEOs. For firms that did provide CEO dividend protection during our sample period, about two thirds of firms (16 out 25) have adopted CEO dividend protection before initiating dividends. However, the results should be interpreted with cautions for two reasons. First, the sample of dividend initiation firms is quite small, with 49 firms in total. Only about half of these firms provided CEO dividend protection during my sample period. For the other half, if they provide CEO dividend protection after 2009, they will be counted as providing dividend protection after $T + 2$ years. Second, even if we find most of firms already have CEO dividend protection before initiating dividends, we can not determine causality because one can argue that firms have already taken into account the possibility of dividend initiation in the

near future when they designed CEO compensation.

4.4 Why do firms provide CEO dividend protection?

4.4.1 Probit regressions

To examine the rationales for CEO dividend protection, we develop three hypotheses, namely dividend-paying incentives, retention incentives, and managerial rent extraction. All three hypotheses predict that the higher the expected future dividend and the higher the proportion of restricted stock and option grants relative to the CEO's annual pay, the more likely a firm will provide dividend protection. However, dividend-paying incentive and retention incentive hypotheses predicts a positive association between CEO dividend protection and quality of corporate governance while the rent extraction hypothesis predicts the opposite. Regarding to the prior CEO excess pay, the rent extraction hypothesis suggest a positive relation with the likelihood of dividend protection while retention incentive predicts the opposite. In addition, the dividend-paying incentives suggest that firms with a dividend-smoothing policy have lower needs for dividend protection. Furthermore, the retention incentive hypothesis predicts that firms with high stock price volatilities are more likely to grant dividend protection to their CEOs.

[Insert Table 7 about here]

In Table 7, Probit regressions are estimated to test the dividend-paying incentive hypothesis. Column (1) shows the Probit regression estimates for the whole sample. Column (2) shows the regression estimates for dividend-paying firms with a least 5-year regular dividend history. The speed of adjustment is a measure for dividend smoothing, estimated following the approach of Leary and Michaely (2011). As shown in the table, large and mature firms are more likely to provide CEO dividend protections. In addition, the positive coefficient on the speed of adjustment suggest the less smoothing there is (higher speed of adjustment) the more dividend protection is provide. These results are consistent with dividend-paying incentives that investors demand large and mature firms to pay out dividend due to agency problem; and dividend-smoothing firms have lower need to provide dividend protections.

[Insert Table 8 about here]

Table 8 report the Probit regressions for retention incentive hypothesis. Dependent variable dividend protection (dummy) in column (1) and is dividend accumulation dummy in column (2). Dividend accumulation dummy equals one if there is a CEO dividend protection and dividend equivalent is accumulated and paid upon vesting; and zero otherwise. Under retention incentive hypothesis, we expect that firms need extra retention tools if CEO stock ownership is low, prior CEO excess pay is low and the past 60-month stock volatility is high. However, all of these variables have the expected signs, but none of them is statistically significant. In addition, dividend protection in the form of accumulation provides higher retention incentives. However, again none of the variables is statistically significant for the accumulation dummy. There, we fail to find support for the retention incentive hypothesis.

[Insert Table 9 about here]

Table 9 presents the Probit regression results for the rent extraction hypothesis. In column (1), the dependent variable is dividend protection dummy. In column (2), the dependent variable is immediate pay dummy which equals one if dividend on restricted stock or options is paid to the CEO at the same time as paid to the common stock shareholders and zero otherwise. In column (3), the dependent variable is voting right dummy which equals one if CEOs are entitled to vote on their restricted stock and zero otherwise.

Under the rent extraction hypothesis, firms are expected to provide CEO dividend protection when they have powerful CEOs (large stock ownership, long tenure, high excess pay) and poor quality of corporate governance (less independent compensation committee and high entrenchment index). Arguably, from rent extraction view, powerful CEOs are more likely to have dividend protection to be paid immediately. That is to say, they already receive dividend on unvested restricted stock that might be forfeited afterward. There is less concern of rent extraction for dividend protections that are accumulated and is subject to restriction. However, we find a negative and significant relation between CEO stock ownership and immediate pay on CEO dividend protection, which is not consistent with the powerful CEO story in the rent extraction hypothesis. Similarly, under this hypothesis, powerful CEOs are more likely to demand voting rights on their restricted stock even if they might not earn the stock upon vesting if some

restrictions are not fulfilled. However, both CEO tenure and prior excess pay are negatively related with the voting rights, which are opposite to the prediction of rent extraction hypothesis. Besides, given that 98% of my sample firms (S&P500) disclose dividend arrangements in their proxy statement and require shareholders to vote during the annual meeting, which is inconsistent with the non-transparent prediction of rent extraction.

Overall, the Probit regression results seem to favor dividend-paying incentive. The predictions related to retention incentive and rent extraction fail to receive support from the regression analysis.

4.4.2 Stock market reaction at announcement of CEO dividend protection

I evaluate shareholder reactions to CEO dividend protection by calculating abnormal stock returns for the introduction or termination of CEO dividend protection in the sample. It is not clear ex ante whether shareholders should view CEO dividend protection positively or negatively. Under the dividend-paying incentive hypothesis, shareholders might react positively to the adoption of dividend protection because CEO's personal financial incentive on dividend is aligned with shareholders and react negative when terminating such dividend protection. Under retention incentive hypothesis, providing CEOs with dividend protection might indicate that the CEO has good performance and is wanted by the firm, which would be good news for shareholder. However, under rent extraction hypothesis, CEO dividend protection might signal a powerful CEO, weak boards, and poor corporate governance. Then shareholders would consider the termination of CEO dividend protection as a good news but the adoption as a bad news.

In the event study analysis, the event date is the earliest of the proxy statement filing, or the Form 10-K, 10-Q, or other filing in which the terms of the CEO dividend protection is described. Five events of adoption and four events of termination are dropped because the event is announced simultaneously with merger and acquisition, restructuring, or bankruptcy (filing Chapter 11). However, since most of the event dates are the proxy statement filing dates in which other information is disclosed, the result of this event study would be interpreted with caution due to the potential compounding effect. Abnormal stock returns are calculated over three different event windows, using standard market model methodology with the CRSP value-weighted index as the market portfolio.

[Insert Table 10 about here]

Results in Table 10 indicate that shareholders have positive reactions to the adoption of CEO dividend protection. Abnormal returns for [-1, +1] window have mean value of 0.45% with statistical significance at the 8% level. In contrast, the termination of CEO dividend protection are accompanied by negative stock reactions, with mean and median abnormal returns of about 0.5% for [-1, 0] and [-1, +1] event windows and are statistically significant below the 10% level. This pattern of results provides some evidence in support of the dividend-paying incentive and retention incentive hypotheses, which predicts positive returns at the disclosure of adopting CEO dividend protection and negative returns at the announcement of terminating dividend protection.

4.5 Ex-dividend price drop and dividend announcement effects

Prior literature argues that firms may use dividends to provide a signal to the market regarding future prospects (e.g. Asquith and Mullins (1983) and Richardson et al. (1986)). However, some recently research struggles to find evidence that dividend increases are reliable signals of future earnings increases (DeAngelo et al. (1996), Benartzi et al. (1997), Nissim and Ziv (2001), Grullon et al. (2005)). Nevertheless, if the dividend increase announcement increases the stock price, CEOs might benefit from paying dividend rather than suffering from a loss. Follow the literature, I construct the drop-off on ex-dividend date as the stock price change measured from the closing price of the preceding day to the opening price on the ex-dividend day, adjusted for the change on S&P 500 index. To check the effect of dividend announcement on the stock price, the mean cumulative abnormal returns (CAR), using the market-adjusted model, are calculated for the 3-day window around the announcement of the dividend decrease, dividend increase, dividend initiation, and special dividends announcement. Dividend increase is further split into increase by less than 10%, increase by 10% to 20%, and increase by more than 20%.

[Insert Table 11 about here]

Table 11 summarizes the results. Consistent with the literature, the ex-dividend date drop-off is significantly negative. The average drop-off of -0.39% dominates the dividend announcement

effect of 0.12% increase in excess returns. Dividend increase on average generates -0.43% drop-off and 0.41% gain on excess return. One might argue that these two effects cancel out when increasing dividend; hence CEOs do not have to worry about potential loss from increasing dividend. However, given that only 16% (1,419 out of 9,100) of chance that firms increase dividend, CEOs might still care about majority of times when firms pay same dividends as previous period. It also seems that CEOs might benefit from dividend initiation since the CAR is much larger than the drop-off. However, this is only a one time gain. After the dividend initiation, CEOs will suffer from paying dividend when they are not dividend protected and when dividend increase is not large.

5 Conclusions

This paper studies dividend arrangement on CEO restricted stock and option grants, commonly known as CEO “dividend protection”. About half of CEOs in S&P 500 firms receive dividend protection on their equity-based compensation. There is a strong relation between CEO dividend protection and the CEO’s decision on payout policies. The results suggest that dividend yield is 40 basis point higher for dividend-protected firms. A one-standard-deviation increase in dividend protection is associated with a 29-basis-point increase in dividend yield, which translates into about a 31% increase in annual dividend yield for a median S&P 500 firm. Using the dividend change after adopting or abandoning CEO dividend protection, I provide some evidence about causality and find CEO dividend protection influences corporate dividend payouts.

I discuss and evaluate hypotheses for why firms provide CEO dividend protection, including dividend-paying incentive, retention incentive, and rent extraction. Regression analysis supports certain predictions of dividend-paying incentive, with large and mature firms and firms with lower dividend-smoothing are more likely to provide CEO dividend protection. The event study analysis shows a positive (negative) market reaction to the adoption (abandonment) of CEO dividend protection, conforming to the dividend-paying incentive hypothesis. However, no results clearly support the retention incentive and rent extraction hypotheses. Overall, these results conform to the efficient contracting theory.

There are three implications from this study. First, investors who care about dividends

should check CEO dividend protection, because changes in CEO dividend protection may lead to changes in dividend payouts. Second, the board of directors and compensation committee should take into account CEO's personal financial incentives when design the CEO pay package. CEO dividend protection can be provided to align managers' incentives with shareholders' interests in payout policy. Finally, for public opinions, this study shows that CEO dividend protection is not necessarily inappropriate. In fact, shareholders might benefit from CEO dividend protection by receiving high dividends.

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Table 1: Dividend protections of CEO restricted stock and option grants

Panel A and Panel B provide summary statistics of dividend and voting rights of CEO restricted stock and option grants for S&P 500 firms in the period of 2000-2009. Financial firms, utilities, and regulated phone companies are excluded. *Dividend (Voting)* rights refer to the rights that entitle the grantee to receive dividends (to vote). *Immediate pay* means the dividend on restricted stock or options is paid to the CEO at the same time as paid to the common stock shareholders. *Accumulation* means the dividend equivalent is accumulated and paid upon vesting. Panel C provides an overview of dividend protections (*DP*) on restricted stock grants (*RSG*) across industries classified based on the Fama-French 12 industry definitions. If firms paid out cash dividends at least once in the past ten years, they are defined as dividend-paying firms; otherwise, as none dividend-paying firms.

Panel A: Dividend and voting rights on restricted stock grants

Year	Total Firms	Rstr. Stock Grant Firms N (%)	Dividend Rights		Voting Rights
			Immediate pay	Accumulation	
			N (%)	N (%)	N (%)
2000	369	80 (22 %)	55 (69 %)	18 (23 %)	27 (34 %)
2001	370	87 (24 %)	59 (68 %)	20 (23 %)	29 (33 %)
2002	372	95 (26 %)	65 (68 %)	20 (21 %)	28 (29 %)
2003	372	128 (34 %)	88 (69 %)	28 (22 %)	38 (30 %)
2004	372	163 (44 %)	102 (63 %)	46 (28 %)	46 (28 %)
2005	361	173 (48 %)	103 (60 %)	50 (29 %)	50 (29 %)
2006	347	204 (59 %)	76 (37 %)	70 (34 %)	41 (20 %)
2007	330	214 (65 %)	73 (34 %)	77 (36 %)	32 (15 %)
2008	320	222 (69 %)	73 (33 %)	80 (36 %)	31 (14 %)
2009	314	212 (68 %)	62 (29 %)	81 (38 %)	28 (13 %)

Panel B: Dividend and voting rights on stock option grants

Year	Total Firms	Stock Option Grant Firms N (%)	Dividend Rights		Voting Rights
			Immediate pay	Accumulation	
			N (%)	N (%)	N (%)
2000	369	308 (83 %)	1 (0.3%)	1 (0.3%)	0 (0 %)
2001	370	319 (86 %)	1 (0.3%)	1 (0.3%)	0 (0 %)
2002	372	304 (82 %)	1 (0.3%)	1 (0.3%)	0 (0 %)
2003	372	306 (82 %)	1 (0.3%)	0 (0.0%)	0 (0 %)
2004	372	299 (80 %)	2 (0.7%)	1 (0.3%)	0 (0 %)
2005	361	276 (76 %)	1 (0.4%)	1 (0.4%)	0 (0 %)
2006	347	245 (71 %)	1 (0.4%)	0 (0.0%)	0 (0 %)
2007	330	228 (69 %)	1 (0.4%)	0 (0.0%)	0 (0 %)
2008	320	222 (69 %)	1 (0.5%)	0 (0.0%)	0 (0 %)
2009	314	228 (73 %)	1 (0.4%)	0 (0.0%)	0 (0 %)

Panel C: Dividend rights on restricted stock grants across industries

	Full sample			Dividend Firms			Non-Dividend Firms		
	N	RSG>0	DP>0	N	RSG>0	DP>0	N	RSG>0	DP>0
All	3,527	45 %	35 %	2,725	49 %	41 %	802	28 %	17 %
NonDurables	334	53 %	47 %	321	53 %	46 %	13	54 %	54 %
Durables	105	42 %	37 %	95	45 %	40 %	10	10 %	10 %
Manufacture	514	50 %	43 %	465	51 %	45 %	49	37 %	24 %
Energy	187	61 %	50 %	171	65 %	53 %	16	19 %	19 %
Chemicals	158	47 %	40 %	158	47 %	40 %	0	0 %	0 %
Business Eq.	826	34 %	23 %	419	38 %	27 %	407	29 %	19 %
Telecom	150	47 %	39 %	127	53 %	44 %	23	13 %	13 %
Shops	494	43 %	31 %	385	51 %	37 %	109	16 %	11 %
Health	375	44 %	30 %	238	52 %	43 %	137	31 %	7 %
Others	384	48 %	40 %	346	48 %	41 %	38	47 %	26 %

Table 2: Summary statistics

Dividend protection (dummy) equals one if there is a dividend protection and zero otherwise. Dividend protection (%) is the value of CEO restricted stock and option holdings that are dividend-protected divided by the total value of restricted stock and option holdings. CEO stock ownership is the number of stock held by the CEO divided by the number of common shares outstanding. CEO cash compensation is the sum of salary and bonus. CEO total compensation includes salary, bonus, other annual, total value of restricted stock granted, long-term incentive pay, and all other total. Dividend is regular cash dividends. Repurchase is the total expenditure on the purchase of common and preferred stocks minus any reduction in the value of the net number of preferred stocks outstanding. Total payouts are the sum of dividends and repurchases. Prior CEO excess pay is three-year excess compensation as measured in Yermack (2006); this variable is missing for 971 observations with less than three years tenure. Free cash flow is operating income before depreciation minus capital expenditures. PPE is property, plants, and equipment. Leverage is total long-term debt scaled by total assets. Volatility of earnings is based on the standard deviation of the past 5-year earnings before interest, taxes and depreciation less capital expenditures, scaled by total assets. Sales growth is the percentage change in sales. Firm age is the number of years since its IPO. Cash flow is earnings before extraordinary items plus depreciation. Q is the ratio of market value of assets to book value of assets, components of which are as in Fama and French (2002). Independent committee is a dummy variable that equals one if all the compensation committee members are independent; and zero otherwise. Entrenchment index is a measure of corporate governance, following Bebchuk et al. (2009)'s definition. Speed of adjustment is a measure of dividend-smoothing as estimated in Leary and Michaely (2011); this variable is missing for 1670 observations with less than five years regular dividend.

	Mean	Std Dev	10th Pctl	Median	90th Pctl	N
<i>CEO characteristics</i>						
Dividend protection (dummy)	0.498	0.50	0	0	1	3,527
Dividend protection (%)	17 %	27 %	0 %	0 %	61 %	3,527
Number of restricted stock holdings ('000)	137	303	0	21	375	3,527
Number of option holdings (million)	2.8	5.0	0.3	1.5	5.6	3,527
CEO stock ownership (%)	0.8%	2.8%	0.0%	0.1%	1.3%	3,527
CEO cash compensation (\$million)	2.1	2.3	0.8	1.5	3.9	3,527
CEO total compensation (\$million)	25.0	30.1	5.7	17.9	48.8	3,527
Prior CEO excess pay (\$million)	1.2	1.2	0.5	1.0	2.0	2,556
CEO tenure	5.4	3.6	1.0	5.0	10.7	3,527
<i>Payout and investment policies</i>						
Dividend/market value of equity	1.3%	1.6%	0 %	0.9%	3.2%	3,527
Repurchase/market value of equity	2.7%	3.9%	0 %	1.1%	7.8%	3,527
Total payouts/market value of equity	4.0%	4.2%	0 %	2.9%	9.2%	3,527
Capital expenditure/lagged PPE	0.26	0.30	0.09	0.20	0.44	3,527
<i>Firm characteristics</i>						
Free cash flow/total assets	0.11	0.09	0.02	0.10	0.20	3,527
Market-to-book ratio	2.27	1.63	1.11	1.77	3.86	3,527
Firm size (log total assets)	9.01	1.20	7.57	8.95	10.50	3,527
Leverage	0.20	0.16	0.00	0.19	0.40	3,527
Volatility of earnings	0.04	0.03	0.01	0.02	0.07	3,527
Return on assets	5.47	13.96	-0.87	6.29	14.07	3,527
Sales growth	8 %	23 %	-12 %	7 %	28 %	3,527
Firm age	35.4	23.4	9.0	32.0	77	3,527
Cash flow/lagged PPE	0.58	2.11	0.08	0.44	1.62	3,527
Q	2.24	1.64	1.07	1.74	3.85	3,527
Independent compensation committee	0.83	0.37	0	1	1	3,076
Entrenchment Index	1.85	1.32	0	2	3	3,089
Speed of adjustment	0.32	0.35	0.00	0.23	0.83	1,957
Past 60-month stock volatility	0.39	0.18	0.22	0.35	0.64	3,311

Table 3: Dividend protections and corporate payouts

The table provides Tobit estimates of corporate payout policies on dividend protection. The following regression specifications are estimated for three separate payout policy measures and two dividend protection measures,

$$PayoutPolicy_{i,t} = \alpha_i + \beta' DP_{i,t-1} + \gamma' X_{i,t-1} + \lambda' Y_t + \mu' I_i + \varepsilon_{i,t},$$

where $PayoutPolicy_{i,t}$ is a set of dependent variables, including dividend, repurchase and total payout (the sum of dividends and repurchases), all scaled by the market value of equity. $DP_{i,t-1}$ is a set of variables for CEO dividend protection. Dividend protection (dummy) equals one if there is a dividend protection and zero otherwise. Dividend protection (%) measures the value of CEO restricted stock and option holdings that are dividend-protected divided by the total value of restricted stock and option holdings. $X_{i,t-1}$ is a vector of control variables previously shown to affect payout that include CEO restricted stock holdings, option holdings, stock ownership, cash compensation, free cash flow, market-to-book ratio, firm size, leverage, volatility of earnings, past 3-year EPS, and ROA. Y_t and I_i are vectors of year and industry dummies, respectively, and $\varepsilon_{i,t}$ is the error term. The marginal effect and t -statistics (in parentheses) are reported. Standard errors are clustered at the firm level. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively.

	Dividend/MV		Repurchase/MV		Total Payout/MV	
	(1)	(2)	(3)	(4)	(5)	(6)
Dividend protection (dummy)	0.40 *** (3.62)		-0.14 (-0.52)		1.24 * (1.92)	
Dividend protection (%)		1.05 *** (4.49)		-1.11 *** (-2.58)		2.31 * (1.79)
Restricted stock holdings	-0.26 (-1.63)	-0.44 *** (-2.59)	-0.32 (-0.77)	0.02 (0.05)	-1.92 (-1.59)	-2.00 (-1.64)
Option holdings	-0.08 *** (-3.62)	-0.07 *** (-3.30)	0.05 (1.42)	0.04 (1.17)	0.05 (0.75)	0.06 (0.90)
CEO stock ownership	-0.01 (-0.48)	-0.03 (-0.90)	-0.06 (-1.13)	-0.05 (-0.92)	-0.07 (-0.82)	-0.10 (-1.08)
CEO cash compensation	0.02 (1.06)	0.02 (1.13)	0.10 (1.40)	0.09 (1.32)	0.01 (0.08)	0.01 (0.13)
Free cash flow/assets	5.23 *** (5.96)	5.15 *** (5.85)	17.76 *** (7.70)	17.63 *** (7.78)	17.06 *** (3.44)	16.39 *** (3.33)
Market-to-Book	-0.29 *** (-4.82)	-0.28 *** (-4.75)	-0.41 *** (-3.99)	-0.40 *** (-3.97)	-0.81 *** (-3.40)	-0.79 *** (-3.30)
Firm size	0.49 *** (7.23)	0.47 *** (6.99)	-0.13 (-0.99)	-0.11 (-0.86)	-0.13 (-0.43)	-0.17 (-0.56)
Debt/assets	0.79 (1.34)	0.81 (1.42)	-4.54 *** (-4.34)	-4.62 *** (-4.50)	-0.46 (-0.14)	-0.55 (-0.17)
Volatility of earnings	-3.23 * (-1.90)	-3.41 ** (-1.99)	-5.87 ** (-2.05)	-5.86 ** (-2.05)	-18.59 *** (-3.25)	-19.58 *** (-3.40)
Past 3-year average EPS	0.04 (1.22)	0.05 (1.47)	0.18 ** (2.56)	0.17 ** (2.48)	0.37 * (1.93)	0.39 ** (2.02)
Return on assets	3.24 *** (4.41)	3.08 *** (4.38)	2.97 ** (1.99)	2.90 ** (1.98)	14.65 *** (4.23)	13.95 *** (4.07)
Year, industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	3,527	3,527	3,527	3,527	3,527	3,527
Pseudo R-squared	0.151	0.155	0.065	0.066	0.015	0.015

Table 4: Robustness checks

The table performs various robustness checks. Panel A summarizes the Tobit regression results following specifications in Table 3, but carried out for several subsamples. Panel B replicates specifications in Table 3 with alternative payout policy measures. In Panel A, each row summarizes the results for a specific subsample. Only the marginal effect of dividend protection (dummy) (the first three columns) and dividend protection (%) (the last three columns) and t -statistics (in parentheses) are shown. All other variables shown in Table 3 are included in the regression, but not reported. Dividend payers refer to firms that paid out a cash dividend at least once in the past five years. RS stands for restricted stock. Non-CEO-turnover refers to firms that have no CEO turnover in a particular year. In Panel B, the first two rows summarize the marginal effect of dividend protection (dummy) or dividend protection (%) and t -statistics (in parentheses) for three separate payout policy measures, namely dividend, repurchases, and total payout, all scaled by earnings (E). In the last two rows, all the payout policy measures are scaled by free cash flow (FCF). Again all other variables, including industry and year dummies, shown in Table 3 are included in the regression, but not reported. In both Panel A and Panel B, standard errors are clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A: Dividend protections and corporate payouts (subsamples)

	N	Dividend protection (dummy)			Dividend protection (%)		
		Div/MV	Rep/MV	Total/MV	Div/MV	Rep/MV	Total/MV
Dividend-protected subsample	1,581	-	-	-	1.07 *** (4.01)	-1.49 *** (-2.76)	-0.33 (-0.68)
Dividend payers subsample	2,582	0.19 * (1.89)	-0.07 (-0.27)	0.85 (1.21)	0.75 *** (3.50)	-1.11 *** (-2.64)	-0.27 (-0.69)
RS holdings>0 subsample	1,792	0.64 ** (2.47)	0.23 (0.41)	2.71 * (1.94)	1.29 *** (4.40)	-1.14 ** (-2.06)	0.12 (0.24)
Option holdings>0 subsample	3,230	0.39 *** (3.60)	-0.14 (-0.50)	1.20 * (1.84)	1.19 *** (5.53)	-1.31 *** (-2.59)	0.03 (0.08)
Non-CEO-turnover subsample	2,811	0.39 *** (3.39)	-0.16 (-0.57)	0.30 (1.22)	0.99 *** (4.07)	-1.18 ** (-2.52)	-0.07 (-0.16)

Panel B: Alternative measures of payout policies

	N	Div/E	Rep/E	Total/E
Dividend protection (dummy)	3,527	9.76 *** (3.55)	-0.92 (-0.21)	5.13 (1.47)
Dividend protection (%)	3,527	19.67 *** (3.76)	-12.04 (-1.59)	4.21 (0.70)
	N	Div/FCF	Rep/FCF	Total/FCF
Dividend protection (dummy)	3,527	8.55 *** (4.26)	-0.51 (-0.17)	4.40 * (1.80)
Dividend protection (%)	3,527	14.19 *** (3.91)	-8.77 * (-1.84)	2.31 (0.57)

Table 5: Heckman Selection Model

The table reports the effect of CEO dividend protection on corporate payout policies from the second-stage of Heckman-selection model. various robustness checks. The selection equation (first stage) includes CEO-specific characteristics, such as CEO stock ownership, cash compensation, and tenure, as well as industry dummies and year dummies to predict firms' propensity to provide CEO dividend protection. A Probit model is used to predict dividend protection (dummy) and a Tobit model is used to predict dividend protection (%). In the outcome equation (second stage), all the variables in Table 3 are included with the inverse Mill's ratio (λ), except that dividend protection measure is replaced by the predicted dividend protection from the selection equation. Only the coefficients of dividend protection variables and inverse Mills-ratio and t -statistics (in parentheses) from the second-stage are shown. All other variables shown in Table 3 are included in the regression, but not reported. *** and ** denote significance at 1% and 5% levels, respectively.

	Dividend/MV		Repurchase/MV		Total Payout/MV	
	(1)	(2)	(3)	(4)	(5)	(6)
Dividend protection (dummy)	0.26 **		-0.19		0.58	
	(2.14)		(-0.62)		(0.44)	
Dividend protection (%)		0.33 ***		-0.68 **		1.50
		(2.74)		(-2.17)		(1.15)
Inverse Mills-ratio	-0.10	0.20	0.71	-0.42	-0.73	2.56
	(-0.15)	(0.29)	(0.44)	(-0.25)	(-0.11)	(0.35)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	3,444	3,444	3,444	3,444	3,444	3,444
Wald Chi2	585.7	581.0	480.3	475.9	387.0	92.8
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

Table 6: Dividend changes around the adoption and abandonment of CEO dividend protection

The table reports median changes in dividend per share around the adoption and abandonment of CEO dividend protection. Year 0 is the year when CEO dividend protection was adopted or abandoned. Unadjusted change is calculated as the percentage change in dividend per share from year i to year j . Industry-adjusted change subtracts the median for firms in the same industry based on the Fama-French 12 industry definitions. Matched-firm-adjusted change matches on firm size, firm age, one-year-lagged ROA, one-year-lagged dividend per share, CEO stock ownership, and industry dummies at year -1 , using propensity score matching method (PSM). First row shows the median changes while the second row shows [# total observations; # positive observations]. Significance levels of medians are based on a two-tailed Wilcoxon rank test. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

	Adopting CEO Dividend Protection			Abandoning CEO Dividend Protection		
	Unadjusted change	Industry -adjusted	Matched-firm -adjusted	Unadjusted change	Industry -adjusted	Matched-firm -adjusted
-3 to -2	0.0 % [45;21]	0.0 % [45;19]	0.0 % [45;19]	0.0 % [26;12]	0.0 % [26;11]	0.0 % [26;11]
-2 to -1	0.0 % [45;22]	0.0 % [45;22]	0.0 % [45;18]	2.6 % ** [26;14]	0.0 % [26;12]	0.0 % [26;10]
-1 to 0	4.2 % ** [45;25]	1.7 % [45;23]	0.0 % [45;20]	4.6 % ** [26;14]	0.0 % [26;12]	0.0 % [26;11]
0 to +1	14.3 % *** [45;28]	6.5 % *** [45;25]	3.1 % ** [45;24]	5.7 % *** [25;16]	0.0 % [25;11]	-6.7 % * [25; 8]
+1 to +2	12.1 % *** [44;30]	6.7 % *** [44;29]	4.4 % ** [44;28]	7.9 % *** [24;16]	0.7 % [24;12]	0.6 % [24;13]
+2 to +3	8.6 % *** [43;26]	3.5 % [43;23]	0.0 % [43;22]	0.7 % [20;10]	0.0 % [20; 9]	-4.6 % * [20; 7]

Table 7: Probit regressions - Testing dividend-paying incentive hypothesis

This table shows Probit regressions on which firms are more likely to provide CEO dividend protections. I estimate the following regression specification,

$$DP\ dummy_{i,t} = \alpha_i + \beta' X_{i,t} + \lambda' Y_t + \mu' I_i + \varepsilon_{i,t},$$

where $DP\ dummy_{i,t}$ equals one if the firm provides dividend protections on CEO restricted stock and/or option holdings and zero otherwise. $X_{i,t}$ is a vector of variables associated with dividend-paying incentive hypothesis, including firm size, ROA, firm age, independent committee, entrenchment index, dividend per share, restricted stock and option holdings scaled by total compensation, and speed of adjustment. Column (1) shows the Probit regression estimates for the whole sample. Column (2) shows the regression estimates for dividend-paying firms with a least 5-year regular dividend history. The speed of adjustment, a measure for dividend smoothing, is estimated from the regression $\Delta D_{i,t-9:t} = \alpha + \beta_{i,t} dev_{i,t-9:t} + u_{it}$ where $dev_{i,t} = TPR_i * E_{i,t} - D_{i,t-1}$, TPR is the firm median payout ratio over the sample period, D is the dividend per share, and E is the earnings per share. Y_t and I_t are vectors of year and industry dummies, respectively, and $\varepsilon_{i,t}$ is the error term. The marginal effect and t -statistics (in parentheses) are reported. Standard errors are clustered at the firm level. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively.

		(1)	(2)
	Expected Sign	All Firms	Dividend Firms
Firm size	+	0.98 * (1.91)	0.12 ** (2.12)
ROA	+	0.23 (0.75)	0.53 (0.98)
Firm age	+	0.01 *** (3.33)	0.01 * (1.72)
Independent committee	+	0.04 (0.42)	-0.04 (-0.34)
Entrenchment Index	-	0.04 (0.82)	0.02 (0.39)
CEO stock ownership	-	-0.03 (-1.24)	-0.02 (-0.55)
Dividend per share	+	0.06 (0.57)	-0.08 (-0.72)
RS & option holdings/TDC1	+	-0.03 (-1.45)	0.01 (0.18)
Speed of adjustment	+		0.28 * (1.68)
Year, industry fixed effects		Yes	Yes
Number of observations		2,919	2,006
Pseudo R-squared		0.097	0.056

Table 8: Probit regressions - Testing retention incentive hypothesis

This table shows Probit regressions on which firms are more likely to provide CEO dividend protections. I estimate the following regression specification,

$$DP_{i,t} = \alpha_i + \beta'X_{i,t} + \lambda'Y_t + \mu'I_t + \varepsilon_{i,t},$$

where $DP_{i,t}$ in column (1) is a dummy variable which equals one if the firm provides dividend protections on CEO restricted stock and/or option holdings and zero otherwise; in column (2) $DP_{i,t}$ is a dummy variable which equals one if there is a CEO dividend protection and dividend equivalent is accumulated and paid upon vesting. $X_{i,t}$ is a vector of variables associated with retention incentive hypothesis, including CEO stock ownership, prior CEO excess pay, past 60-month stock volatility, dividend per share, and restricted stock and option holdings scaled by total compensation. Y_t and I_t are vectors of year and industry dummies, respectively, and $\varepsilon_{i,t}$ is the error term. The marginal effect and t -statistics (in parentheses) are reported. Standard errors are clustered at the firm level. *** and ** denote significance at 1% and 5% levels, respectively.

		(1)	(2)
	Expected Sign	Dividend Protection	Accumulate DP
CEO stock ownership	-	-0.03 (1.09)	-0.02 (-0.64)
Prior CEO excess pay	-	-0.07 (1.45)	-0.03 (-0.50)
Past 60-month stock volatility	+	0.59 (1.56)	0.65 (1.39)
Dividend per share	+	0.35 *** (3.27)	0.05 (0.47)
RS & option holdings/TDC1	+	-0.04 ** (-2.00)	0.01 (0.63)
Year, industry fixed effects		Yes	Yes
Number of observations		2,288	2,288
Pseudo R-squared		0.086	0.093

Table 9: Probit regressions - Testing rent extraction hypothesis

This table shows Probit regressions on which firms are more likely to provide CEO dividend protections. I estimate the following regression specification,

$$right\ dummy_{i,t} = \alpha_i + \beta' X_{i,t} + \lambda' Y_t + \mu' I_i + \varepsilon_{i,t},$$

where $right\ dummy_{i,t}$ equals is a set of set of measures for dividend right and voting right. In column (1), the dependent variable is dividend protection dummy which equals one if the firm provides dividend protections on CEO restricted stock and/or option holdings and zero otherwise. In column (2), the dependent variable is a dummy variable which equals one if dividend on restricted stock or options is paid to the CEO at the same time as paid to the common stock shareholders and zero otherwise. In column (3), the dependent variable is voting right dummy which equals one if CEOs are entitled to vote on their restricted stock and zero otherwise. $X_{i,t}$ is a vector of variables associated with rent extraction hypothesis, including CEO stock ownership, independent committee, entrenchment index, CEO tenure, prior CEO excess pay, dividend per share, and restricted stock and option holdings scaled by total compensation. Y_t and I_t are vectors of year and industry dummies, respectively, and $\varepsilon_{i,t}$ is the error term. The marginal effect and t -statistics (in parentheses) are reported. Standard errors are clustered at the firm level. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively.

		(1)	(2)	(3)
	Expected Sign	Dividend protection	Immediate DP	Voting Rights
CEO stock ownership	+	-0.03 (-1.07)	-0.12 *** (-3.99)	-0.02 (-0.94)
Independent committee	-	0.001 (0.01)	-0.002 (-0.02)	0.02 (0.12)
Entrenchment Index	+	0.01 (0.11)	-0.04 (-0.87)	0.05 (0.76)
CEO tenure	+	-0.06 (-1.33)	0.004 (0.28)	-0.03 * (-1.64)
Prior CEO excess pay	+	-0.02 (-1.34)	-0.06 (-1.28)	-0.13 * (-1.82)
Dividend per share	+	0.26 ** (2.21)	0.26 ** (2.46)	0.13 (1.10)
RS & option holdings/TDC1	-	-0.02 (-0.76)	-0.03 (-1.13)	-0.01 (-0.55)
Year, industry fixed effects		Yes	Yes	Yes
Number of observations		2,188	2,188	2,188
Pseudo R-squared		0.082	0.054	0.044

Table 10: Abnormal stock returns at announcement of CEO dividend protection

The table shows cumulative abnormal stock returns around the disclosure of change in CEO dividend protection. Abnormal returns are calculated for three different event windows, using standard market model methodology. Disclosure dates is the first proxy statement filing that describes details of introducing or terminating CEO dividend protection. Panel A summarizes the abnormal stock return at the announcement of adopting CEO dividend protection, excluding five disclosure events that took place simultaneously with the announcement of the M&A and restructuring plans. Panel B shows the results for the market reaction on terminating CEO dividend protection. Four cases are excluded because the events happened around the date when restructuring or filing Chapter 11 were announced P-values are reported based upon T-tests and Wilcoxon rank-sum tests.

	[-1, 0]	[-1,+1]	[-2,+2]
Panel A: The announcement of adopting CEO dividend protection			
Observations	60	60	60
Mean cumulative abnormal return	0.37 %	0.45 % *	0.70 %
T-statistic p-value	(0.16)	(0.08)	(0.15)
Median cumulative abnormal return	0.48 %	0.29 %	0.43 %
Wilcoxon statistic p-value	(0.15)	(0.15)	(0.18)
Positive:negative	35:25	34:26	35:25
Panel B: The announcement of terminating CEO dividend protection			
Observations	35	35	35
Mean cumulative abnormal return	-0.57 % *	-1.15 %	-0.88 %
T-statistic p-value	(0.09)	(0.15)	(0.10)
Median cumulative abnormal return	-0.49 % *	-0.63 % *	-0.10 %
Wilcoxon statistic p-value	(0.09)	(0.10)	(0.19)
Positive:negative	12:23	10:25	14:20

Table 11: Ex-dividend date drop-off and abnormal returns on dividend announcement

The table provides average ex-dividend date drop-off and cumulative abnormal returns for dividend announcement. The ex-dividend date drop-off is calculated as the stock price change measured from the closing price of the preceding day to the opening price on the ex-dividend day, adjusted for the change on market index. CAR is calculated for the three-day event period from one day before to one day after the announcement day. A dividend increase is defined as a rise in ordinary dividends per share based on dividend announcement in CRSP. A dividend initiation is a dividend increase when no dividend was paid in the past ten years. *** and ** denote significance at 1% and 5% levels, respectively.

	Ex-dividend date drop-off	CAR (-1,+1)	N
All dividend announcement	-0.42 % ***	0.12 % ***	9,100
Initiate dividend	-0.76 % *	1.93 % **	53
Increase dividend	-0.44 % ***	0.41 % ***	1,419
Increase dividend by less than 10%	-0.50 % ***	0.36 % ***	552
Increase dividend by 10% ~ 20%	-0.53 % ***	0.41 % ***	421
Increase dividend by more than 20%	-0.29 % ***	0.50 % ***	446
Decrease dividend	-0.30 % *	-1.41 % *	192