

# 公司執行長的媒體曝光度會影響公司 績效嗎？

## Does CEO Media Coverage Affect Firm Performance?

池祥萱<sup>1</sup> Hsiang-Hsuan Chih

國立東華大學 財務金融學系

Department of Finance, National Dong Hwa University

林煜恩 Yu-En Lin

國立東華大學 企業管理研究所

Department of Business Administration, National Dong Hwa University

陳韋如 Wei-Ru Chen

國立東華大學 國際經濟研究所

Institute of International Economics, National Dong Hwa University

周賓凰 Pin-Huang Chou

國立中央大學 財務金融學系

Department of Finance, National Central University

**摘要：**本文建立屬於台灣上市公司 CEO 媒體資料庫，探討 CEO 媒體曝光度對於公司的經營績效與市場績效的影響。我們發現，CEO 藉由大量的媒體曝光的確會改變大眾對公司的認知，進而造成公司營運狀況的改變。而且不論 CEO 的媒體曝光度是否影響公司的營運狀況，股市投資人皆會因為 CEO 媒體曝光度，改變其對公司股票公司的認知，造成公司股價報酬率的變動。主要實證研究結果如下。第一，公司經營績效較佳、股價報酬率表現較差、公司規模較大、公司成立時間較久以及家族集團公司的 CEO 較受到媒體的注意。第二，CEO 媒體曝光度對於短期經營績效有正向影響，但長期有負向影響。第三，CEO 媒體曝光度對於公司市場績效有持續的負向影響，主要原因可能是資訊不對稱及散戶的過度反應。第四，CEO 若常以正面新聞曝光會顯著增加

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<sup>1</sup> Corresponding author: Department of Finance, National Dong Hwa University, Hualien, City, Taiwan. E-mail: hhchih@mail.ndhu.edu.tw

公司經營績效，但市場績效卻會顯著下跌。此外，非家族集團公司的 CEO 較能藉由正面或是公司新聞曝光度增加公司的經營績效。

**關鍵詞：**媒體曝光度；公司績效；行為財務學

**Abstract:** In this paper, we provide an empirical analysis of the impact of CEO media coverage on the corporate fundamental and market value constructing the media coverage of Taiwan CEO database. We find that CEO media coverage significant affects the cognition of the public, and further influence firm's operating performance. We also find that whether CEO media coverage provides information about firm's fundamentals, it will simulate investors' trading behavior and fluctuate the stock returns. The empirical results of this paper are summarized as follows. First, the media pay more attention to the firm CEOs with better ROA, worse stock return, larger size, older age and group firms. Second, the CEO media coverage affects ROA positively in the short run because of efficient operation, while negatively in the long run because of worse profitability. Third, the bigger amount of CEO' media coverage is, the larger the drop in the current and future stock returns. The main reasons are information asymmetry and the market investors' overreaction. Finally, if the firms have more positive media coverage, the market performance will decline but the ROA will increase. Comparing with the group firms, the non-group firms can increase ROA by increasing CEO media coverage, especially positive or company-related news.

**Keywords:** Media coverage; Firm performance; Behavioral finance

## 1. Introduction

The impact of CEO media coverage on the public has received increasing attention in both practitioners and academics. For example, articles in *The Economist*<sup>2</sup> and *Fortune*<sup>3</sup> indicate that the public is unable to calculate a firm's value correctly so as that it has a good impression of the CEOs whom often appear in the mass media. The literature on CEO media coverage has been concentrated in the fields of mass communication, organizational behavior, and

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<sup>2</sup> *The Economist*, 2002, "CEO's Fallen Idols,"

<sup>3</sup> *Fortune*, 2004, "Glamour! Fame! Org Charts,"

marketing (Garbett, 1988; Skolnik, 1994; Straughan, Bleske and Zhao, 1996; Graham, 1997; Eichholz, 1999; Deephouse, 2000; Roberts and Dowling, 2002; Rindova et al 2005); these studies focus on how a firm takes advantage of media coverage to strengthen a firm's image and reputation. While studies on these issues are insightful, to the best of our knowledge, very few studies have directly examined the impact of CEO coverage on firm performance in finance field.

There are two lines of finance literature on CEO media coverage. The first line focuses on the impact of CEO media coverage on the firm's operating performance (Milbourn 2003; Hamilton and Zeckhauser, 2004; Garay, Gonzalez and Molina, 2004; Malmendier and Tate, 2005), and the second line examines the impact of firm media coverage, instead of CEO, on the firm's stock return and the investor's trading behavior (Urrutia and Vu, 1999; Barber and Odean, 2008; Tetlock, 2007; Bushee et al 2007).

In a truly efficient market, if CEO media coverage does not contain any information content about the firm's operating performance, it should not have any impact on the firm's fundamental or market value. Although the CEO media coverage makes some investors misprice the firm, the rational investor would implement contrarian investing to make the pricing error disappear. On the other hand, the CEO's image and might have impact on a firm's product image indirectly, so CEO media coverage could be viewed as a marketing approach, which in turn influences future sales. Khurana (2002) documents CEO media reports are not only related to management but also related to public relation and image making. Kotler and Andreasen (1996) argue that the marketing public relation not only provides consumers the firm's information, but also establishes the firm's image in their mind. Dick and Basu (1994) and Nguyen and Leblanc (2001) suggest when a firm has a good image, its consumer loyalty would be higher and the probability of the second consumption would be larger. Under the above standpoint, CEO media coverage might influence a firm's operating performance ultimately and the firm's market value.

From another viewpoint, behaviorists argue that investors might have cognitive bias that leads them to make decisions by a heuristic approach so that irrational investors' cognition about a firm might be influenced by CEO media

coverage. This reflection in trading behavior would result in overreaction or underreaction, meaning CEO media coverage might influence short or long period stock returns whether the firm operating situation changes or not. Baker, Ruback and Wurgler (2006) further suggest that a rational manager could take advantage of such market irrational reaction by taking some actions to make the firm's market value deviate from the fundamental, which can be referred to as "catering".

Based on a sample of firms listed on the Taiwan Stock Exchange, this paper investigates whether CEO media coverage can in fact change people's cognition, which in addition can influence a firm's fundamentals thereby causing a change of the operating situation. We also investigate whether investors change their cognition about a firm due to CEO media coverage or not, which makes stock returns fluctuate.

Because the CEO is the most important decision maker and often even a celebrity catching the public's eyes easily, media and the public often pay more attention on the CEO himself and less on reports about the firm (Useem, 2001; Hamilton and Zeckhauser, 2004): Compared with institutional investors, the individual investors' professional ability and information sources are inferior, so they depend more on media reports. To investigate the impact of CEO media coverage on a firm's fundamentals is more important because the majority of investors in Taiwan's stock market are individual investors. However, prior studies have neglected this issue. This paper therefore aims to fill this gap.

To measure the firm's CEO media coverage, we refer to the methodology from academic research and practice methods at the same time. We select the most popular newspapers to build a unique Taiwan CEO media coverage database for our research. To investigate whether the type of media report has a different impact on firm performance, we divide every report in detail. First, we divide reports into positive and negative for a firm's CEO by the tone of the report content. Then, we divide the reports into corporate-related reports and CEO-related reports by the type of report content.

Our results highlight the CEOs with better operations, worse stock returns, bigger firm size, longer histories and group firms would have more media

coverage. A CEO having more media coverage would influence the public's cognition about the firm. Although CEO media could improve the concurrent year operating performance, the effect would turn to negative in the long period because the CEO might spend too much time in participating in media activity which makes him neglect managing the firm. Empirical evidence also documents CEO media coverage has a lasting negative impact on stock returns. This might have two reasons. First, CEO media coverage might have impact on information asymmetry, so the firm of lower CEO media coverage has to get higher risk premium to compensate the problem of adverse selection. Second, investors intend to buy stock with high CEO media coverage that induces overreaction; as such, the return of high CEO media coverage would be lower than the return of low CEO media coverage in the future. Our evidence also shows that when a CEO has positive media coverage this would improve operating performance but decrease market performance. In addition, compared with a group firm, a CEO in a non-group firm could improve more firm operating performance by positive or corporate-related media coverage.

The rest of the paper proceeds as follows. Section 2 reviews the related literature. Section 3 describes the data and the construction of CEO media coverage index. Section 4 reports the evidence of CEO media coverage index and corporate performance in which we analyze corporate performance by operating performance and market performance. Section 5 analyzes the impact of tone and type of media report on corporate performance. Finally, Section 6 concludes the paper.

## **2. Literature Review**

Prior studies point out that CEO media coverage has a positive impact on firm operating performance. Pincus, Rayfield and Cozzens (1991), Daily and Johnson (1997) and Deephouse (2000) argue that the CEO is a symbol of the corporate leader and successor. They could not only attract more customers, investors and employees to improve sales, but they also make the public believe in the executive's management ability and firm performance. On the contrary,

some literatures have different explanations. Hamilton and Zeckhauser (2004) document the negative impact of CEO media. Firms with higher CEO media coverage have no significant difference in returns on equity, and more CEO coverage by soft news often appears in negative news related to scandals or embezzlement of corporate funds. CEO even possibly increases his or her own media coverage at the expense of the firm performance.

Garay, Gonzalez and Molina (2004) investigate the performance of the banking industry. They find that CEO reputation is positive depending on the number of CEO delegated as outside directorships that increase the default risk of the bank. Malmendier and Tate (2005) study CEOs who achieve “superstar” status from the business press. The firms of the superstars would decrease return on assets in the subsequent three years because superstar-CEOs could promote their own compensation and the number of outside directorships, thereby spending excess time to participate in media related activities affecting firm operating performance. Milbourn (2003) and Hamilton and Zeckhauser (2004) also find a CEO would promote his or her salary by CEO media coverage which influences firm performance. According to corporate governance, having a CEO’s salary set too high would suggest weak corporate governance. Core, Holthausen and Larcker (1999) further suggests when the structure of corporate governance is inefficient and agency problem is serious, a CEO could receive higher compensation while the firm’s operating performance and stock return would have been lower.

As for the impact of CEO media coverage on stock investors, Gaines–Ross (2000) suggests CEO image could influence the investors’ thoughts about the firms, and the CEO’s reputation could influence the financial analysts’ recommendations about a firm. Many industry analysts would rate firms with high CEO reputation hold or buy. Barber and Odean (2008) show that the media has more impact on individual investors than institution investors. After comparing the different types of investors’ behaviors, they find that individual investors are unable to judge market signals and view “high-attention” stocks as “high-quality” stocks. They would buy the stocks based on media reports, whereas institutional investors would have opposite trading. Bushee et al (2007) argue that the report of

a firm from the media can assist the public in understanding the firm, which influences the degree of information asymmetry between investors, making more individual investors trade the firm's stocks. Tetlock (2007) also documents that the media would influence investors' thoughts about stocks directly. The pessimistic reports would induce the stock price to drop, and then the stock price would reverse

### **3. Data and CEO Media Coverage Index**

#### **3.1 Sample Selection**

This paper constructs a media database from January 1, 2001 through December 31, 2002. Our sample includes 1,402 firm-years<sup>4</sup>. Because a CEO media coverage database is not constructed in Taiwan, this paper constructs the database by referring to methodology from Hamilton and Zeckhauser (2004), Park and Berger (2004), Wang (1989), and Delahaye<sup>5</sup> which is the famous media analysis company in the U.S. The reasons why we only select the years 2001 and 2002 as the study period are as follow. First, Hamilton and Zehauset (2004) document that many corporate scandals have been exposed to the public since 2001, which makes the media inspect CEOs seriously and carefully. In addition, one of the famous magazines in Hong Kong, which began to circulate in Taiwan in 2001, and resulted in a deluge of reports on CEOs in the media industry in Taiwan. The change of media is an important concern so we select January 1, 2001 to December 31, 2002 for the media constructive period. Robinson and Levy (1996) and Gaines-Ross (2000) point out that newspapers provide the most powerful media coverage of CEOs and this has some impact on the public. This

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<sup>4</sup> Although this paper's media database period is only two years, it's longer than prior literatures. The media period of Eichholz (1999) and Wartick (1992) are one or less than one year. The number of samples is also more than prior papers. Fombrun and Shanley (1990) only select 292 large firms and Hamilton and Zeckhauser (2004) randomly select 200 firms from S&P 500 to compare "reputation CEO" and "non-reputation CEO". In addition, the database of this paper is more complete. For example, Milbourn (2003) only gathers information from Down Jones New Retrieval Service, and Park and Berger (2004) only retrieve job titles from front pages and headlines.

<sup>5</sup> Delahaye's website: <http://www.delahaye.com/>

study also takes the complete media database of Taiwan into account; consequently, we choose the most popular newspapers in Taiwan, the UDN data, as the source of our media database.<sup>6</sup>

The definition of CEO in this paper is the chairman of the board and general manager<sup>7</sup>. The CEO media coverage is the number of CEO appears in newspaper. We screen the reports and titles by setting the key word “CEO” and “name”. For example, the report should contain “chairman of board of TSMC” and “Zhong-Mou, Chang” at the same time. If the content only reveals “Zhong-Mou, Chang”, we drop this news. The main concern here is that there are many people having the same name in Taiwan so we set this restriction.

According to Hamilton and Zeckhauser (2004), we divide news into three categories as positive, negative or neutral depending on the tone of the media report. A piece of news is classified a ‘positive’ tone refers to a favorable report to the CEOs, and a ‘negative’ tone refers to a harmful report to the CEOs, whereas if we couldn’t divide the reports into positive or negative, we refer these reports to as a ‘neutral’ tone.

We also divide news into another three categories depending on the type of the media report: the first category is company-related involving discussing the firm’s strategy, sales, margin, and earnings; the second category is CEO-related including the CEO’s life style, habits and personality which is not related to the

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<sup>6</sup> UDN data includes Economic Daily News, United Daily News, United Evening Papers, Min Sheng Daily and Stars News. We don’t choose other newspapers to avoid the articles are double-counted. In order to avoid subsamples in single newspaper systems only read by a piece of investors which may suffer selection bias, we choose one newspaper in different fields. For example, The Economic Daily News belongs to the business area, the United Daily News covers general news, and the Min Sheng Daily covers entertainment, and so on. Also, different newspaper systems have their own standpoint. It might suffer some bias from only selecting UDN data. However, the standpoint of newspaper systems is from a political position, such that CEOs seldom have a clear political problem for operating smoothly so the impact of standpoint of newspaper system is limited.

<sup>7</sup> The job title in Taiwan’s listed firms seldom has a CEO title, but uses the general manager. In most situations, the chairman of the board often holds the general manager position at the same time. Sometimes, the chairman of the board and general manager are not the same person. We think the importance of their impact on decision-making and influencing the market is equivalent. For convenience, we call the chairman of the board and general manager as the CEO.



**Table 1**  
**Definition of Variables and Descriptive Statistics**

The period of variable is 2001 to 2004, and the period of construction media database is Jan, 1, 2001 to Dec, 31, 2002. The definition of ROA is the percentage of Net Income-Exc Dispo divided with average net asset, return on assets. Market is the abnormal return by which every firm is estimated by market model. Fixgrowth is the firm's fixed asset growth rate. Media is the percentage the CEO was mentioned in the newspapers relative to the number of reports for all sample firm CEOs during the year  $t$ . Size is the firm's total assets. (in thousand dollars); BM is the book to market ratio. Debt is the total liability to total assets. Age is the years from the IPO date to the period of construction media database ( $t$ ). Wage is the CEO's compensation including the salary, award money, transportation allowance (in thousand dollars). BSR is the ratio of margin buying to short selling. Institution is the ratio of the net buying of three big institutional investors (dealer, trust and foreign investment) to the daily trading volume.

**Panel A Summary by the Tone of Media Content**

	Positive	Negative	Neutral	Sum
2001	3,043	674	3,265	6,982
2002	3,349	552	2,878	6,779
sum	6,392 (46.45%)	1,226 (8.91%)	6,143 (44.64%)	13,761

**Panel B Summary by the Type of Media Content**

year	Company-related	CEO-related	others	sum
2001	3,998	2,696	288	6,982
2002	4,052	2,526	201	6,779
sum	8,050 (58.50%)	5,222 (37.95%)	489 (3.55%)	13,761

**Panel C Descriptive Statistics**

	Min	Mean	Median	Max	Std.Dev
Media	0	0.123	0.029	11.528	0.4
ROA	-108.68	6.105	5.79	51.02	8.035
Market	-30.17	1.45	0.49	116.61	5.96
Size	205.14	19,498	5,536	2,650,078	71,704
BM	-0.155	1.158	0.938	24.93	1.104
Debt	0.035	40.45	39.665	845.33	16.489
Age	-1	10.153	7.083	42.8333	10.041
Wage	1.0986	5,664.01	3,624.00	13.0425	11,705.17
BSR	0	4.247	0.72	82.8	9.611
Institution	-479.75	12.32	0.07	8925	216.38

company; the third category is others which couldn't be divided into the above two categories.

Panel A of Table 1 shows there are 13,761 reports in 2001 and 2002. As for the tone towards the CEO and company, positive news is 46.45% in total news, neutral news is 44.64% in total news and negative news is only 8.91% in total news. Panel B of Table 1 shows the type of report: 58.5% of total news is company-related news and 37.95% of total news is CEO-related news.

### 3.2 The Construction of CEO Media Coverage Index

For the purposes of our analysis, we constructed a media coverage index for five popular newspapers in Taiwan. This index can reflect the level of media coverage of CEOs, which is defined as follows:

$$Media_{j,t} = \frac{media_{j,t}}{\sum_{j=1}^n media_{j,t}} \times 100\% \quad j = 1, 2, \dots, 701 \quad (1)$$

Equation (1) represents the number of times firm  $j$ 's CEO was mentioned in the newspapers relative to the number of reports for all sample firm CEOs during the year  $t$ . The larger the index is, the higher the degree of the CEO's media coverage.

In order to explore whether the media coverage of CEOs with a different tone has a different influence on the performance of firms, we constructed another media coverage index,  $Media_{k,t}$ ,

$$Media_{k,t} = \frac{media_{j,k,t}}{media_{j,t}} \times 100\% \quad (2)$$

Equation (2) represents the number of times firm  $j$ 's CEO was reported in the newspapers with tone  $k$ , i.e., positive, negative or neutral language relative to the total number of times firm  $j$ 's CEO was reported during the year  $t$ .

### 3.3 Variables Selection

As for measuring the corporate performance, the prior literatures often use two kinds of performance index: market index and accounting index. Dutta and

Reichelstein (2005) point out that choosing the stock price as a performance indicator has a drawback; that is, stock price performance must reflect all value-relevant factors even if some of those factors are not related to CEOs. Dutta and Reichelstein (2005) recommend both performances should be used when comparing the firm performance. As a consequence, this paper uses these two indexes to measure firm performance. The accounting index we use is return on assets to measure the operating performance. The market index we use is market-adjusted stock returns (Barber and Lyon, 1997)<sup>8</sup> to measure the firm's stock performance.

We choose several firm characteristics as control variables including firm size, book to market ratio, debt ratio, the age from IPO and the CEO's compensation. Brennan and Hughes (1991) and Guay and Harford (2000) point out the degree of information asymmetry in large firms is lower because the market is often concerned with large firms. Eichholz (1999) also finds the larger firms obviously are followed by the media because the impact of the decision making from larger firms is bigger. Smith and Watts (1992), Opler and Titman (1993) and Fenn and Liang (2001) use book to market ratio to measure the future investment opportunity. The higher book to market ratio means the future investment opportunity or the growth of the company is lower, and the underpricing situation is more serious. We are also concerned with the debt ratio because the debt ratio is correlated to financial distress, which might influence the company performance. Adams, Almeida and Ferreira (2005) suggest that an old company might have a learning effect that makes their performance more stable. Core, Holthausen and Larcker (1999) point out when the structure of corporate management is less inefficient and has a serious agency problem, the CEO could receive a higher salary which has a negative impact on firm operating performance.

The firm characteristic variables are concurrent with company performance

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<sup>8</sup> We also use other market performances to measure the stock performance, for example, the alpha from four factor model (Carhart, 1997) and buy and hold return (BHAR) (Blume and Stambaugh, 1983; Roll, 1983; Ball, Kothari, and Shanken, 1995) to measure year market performance. The results between different returns are similar.

variables. The definitions are as follows: we define the firm size (Size) measured as the log of assets. The book-to-market ratio (BM) is the ratio of the book value of equity to the market value of equity. The debt ratio (Debt) is total debt divided by total assets. The listed year (Age) calculated the year from company IPO date to the construction period. Regarding the CEO's salary (Wage) because Taiwan's data about the cash and stock bonus is not complete, this paper only discusses the CEO's cash compensation<sup>9</sup> including salary, award money, and transportation allowance.

In addition, we also include the market trading proxy variables. Barber and Odean (2008) find that individual investors are more easily influenced by media than institution than institutional investors. Only the individual investors are allowed to participate in margin buying and short selling in Taiwan, so we take the ratio of margin buying to short selling (BSR) into our model. We also include the institutional investors' trading variable (Institution), to be the ratio of institutional investors' net buy to the total market trading volume. All the variables in this paper come from the Taiwan Economic Journal. To compare whether the individual and institutional investors are influenced by CEO media coverage, we take BSR and Institution into account. The higher BSR means margin buying is growing faster than short selling which implies the individual investors think the stock would go up. The higher Institution means the institutional investors think the stock would go up.

Panel C of Table 1 is the descriptive statistics for CEO media coverage, performance variables, firm characteristic variables and market trading variables. The mean and median of CEO media coverage are 0.123 and 0.029.<sup>10</sup> The means of two performance, ROA and Market-adjusted stock return (Return), are 6.11% and 1.45%. The mean of total assets is 19,498 thousand dollars; the mean of BM

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<sup>9</sup> Liu, He, and Liu (2005) rate the compensations of Taiwan's chairmen of the board of listed firms in 2004: the compensations only included salary, award money, transportation allowance, as for car, dorm, and so on of which they think every firm has a different calculating base, so they don't include it.

<sup>10</sup> The mean and median of CEO media coverage are 0.123 and 0.029. This is a large difference, suggesting that outliers may influence empirical results. We delete firms with the highest 5% CEO media coverage to perform a robustness test. The results don't have significant differences.

is 1.158; the mean of Debt is 40.45%; the Age is 10.153 years on average; average Wage is 5,664.01 thousand dollars. In addition, the average BSR and the Institution are 4.42 and 12.32%. Table 2 also shows the correlation coefficient is low between all the variables, so our regression model doesn't suffer from the problem of multi-collinearity<sup>11</sup>.

## **4. CEO Media Coverage and Firm's Performance**

### **4.1 The Factors Influencing CEO Media Coverage**

First, we analyze the factor of CEO media coverage. Because many CEOs aren't exposed to the media, in 473 of the full 1,402 observations, their CEO media coverage is 0. This paper employs the Tobit model for analysis, and the results are reported in Table 3. The dependent variable is the CEO media coverage index, and the independent variables are ROA, Return, Size, BM, Debt, Age and dummy variable for group firms, Group. If a firm belongs to some group then Group is equal to one; otherwise, it is set at zero. We are also concerned with the impact from industry character, so we include the industry dummy variable (Industry)<sup>12</sup>.

We take Group into account because there are many firms that are parts of group firms, and their ownership and management cannot be separated. Their CEOs do not have restrictions on their tenure nor do they stand down for poor performance. On the contrary, CEOs working for non-group firms would be exposed to the media for their career concerns. Although the CEOs of group firms don't have the motive to expose themselves to the media, their company size and

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<sup>11</sup> The correlation coefficient of BM and ROA is higher. We use the asset growth rate to be the proxy of investment opportunity (Farinha, 2003), and the results don't have significant differences.

<sup>12</sup> Vaughn (1980) points out when customers have high purchasing of a product with cost, high social valuation and high risk, so they need more information and attention. The kind of industry is also referred to as a high involved industry; in other words, this is an industry in which the interest and the degree of attention are higher when customers are making a purchase decision (Mittal, 1989). So, this paper concludes the customers or investors of high-involved industry are more easily influenced by CEO media coverage. We thus include the high-involved industry. Schuler and Cording (2006) point out the industries of cars, electrons and financials are high-involved industries, and we set dummy variables for these industries.

age are larger and longer, which can catch the media's attention. So the motive and impact of CEOs' media coverage might have a difference between group and non-group firms.

Table 3 shows the coefficients of ROA and Return are 0.813 and -0.0001, both of which are significant. This represents that better operating and poor stock return companies would attract the media. Empirical evidence shows that CEO in larger older and group firms might also more readily catch the media's attention.

## **4.2 CEO Media Coverage and Firm's Accounting Performance**

In this section we analyze whether the CEO media coverage changes the public's cognition about a company and influences the firm's fundamentals, which influence a company's operating performance. We select ROA to measure the company operating performance, which is the accounting performance.

Although the accounting performance could not reflect the change of the stock market immediately like the market performance, the accounting performance could reflect the CEOs' ability to manage firms. We use the ordinary least squares method (OLS) to estimate the relation between CEO media coverage and firm accounting performance, with the results shown in Table 4.

The dependent variable of the first two columns in Table 4 is concurrent ROA. Column one shows that the larger company size, more investment opportunity, lower debt ratio, higher CEO compensation and non-group corporations have positive impact on ROA. Column two shows CEO media coverage could positively and significantly influence concurrent ROA. We also include the interaction term of Wage×Media and Group×Media. The coefficient of Wage is 0.01, which has positive significant influence on ROA, but the Wage×Media doesn't influence ROA significantly. The coefficient of Group×Media is -0.197, which means the non-group firms could improve more concurrent ROA than the group firms. The dependent variables of column three and column four are ROA in the following year. The results show that CEO media coverage has no impact on the following ROA, but the non-group still could improve more ROA than the group firms, as the coefficient of Group is -0.114. The dependent variables of column five and column six are ROA in the

**Table 2**  
**Correlation Coefficient Table**

Panel A Pearson Correlation Matrix										
ROA	1									
Market adjusted return	0.122***	1								
Media	0.080***	-0.067**	1							
Size	-0.078	-0.080***	0.278***	1						
BM	-0.384***	-0.132***	-0.093***	-0.062**	1					
Debt	-0.528***	0.016	-0.011	0.288***	0.193***	1				
Age	-0.288***	0.044***	0.096***	0.128***	0.193***	0.150***	1			
Wage	0.159***	-0.083***	0.111***	-0.021***	-0.105***	-0.073	-0.033***	1		
BSR	0.118***	0.172***	0.081***	0.022***	-0.193***	-0.048***	-0.111***	0.075**	1	
Institution	0.048***	-0.028	0.010***	0.011**	-0.028	0.012**	-0.034**	-0.049	0.113	1
Panel B Spearman Correlation Matrix										
ROA	1									
Market adjusted return	0.162***	1								
Media	0.130***	-0.079***	1							
Size	-0.175**	-0.066	0.465***	1						
BM	-0.638***	-0.190***	-0.243***	0.074	1					
Debt	-0.520***	-0.010	0.067***	0.335***	0.213***	1				
Age	-0.427***	0.039**	0.034**	0.388***	0.447***	0.187***	1			
Wage	0.174***	-0.086	0.176***	0.198**	-0.192***	-0.032**	-0.029	1		
BSR	0.324***	0.214***	0.300***	0.219***	-0.552***	-0.134	-0.190***	0.196**	1	
Institution	0.128***	0.340***	0.044***	0.080***	-0.169***	-0.019	0.050**	-0.021***	0.158***	1

**Table 3**  
**The Factors Influencing CEO Media Coverage**

Dependent variable for Media index is Media, and the definition is the percentage the CEO was mentioned in the newspapers relative to the number of reports for all sample firm CEOs during the year  $t$ . Group is dummy variable; if firm is a group firm, then the variable is equal to one, with others being equal to zero. Industry is industry dummy variable. The definitions of other variables are the same in Table 1. The  $t$  value is presented in parentheses. \*, \*\*, and \*\*\* indicate significantly different from zero at 10%, 5%, and 1%.

Variable	(1)	(2)	(3)
Constant	-0.715*** (-4.264)	-1.164*** (-11.470)	-1.255*** (-12.047)
ROA	0.485 (1.340)		0.813*** (3.482)
Market adjusted return		-0.0001*** (-3.594)	-0.0001*** (-4.213)
Size	0.082*** (4.868)	0.117*** (10.976)	0.112*** (10.596)
BM	0.002 (0.083)	-0.002 (-0.172)	0.001 (0.083)
Debt	-0.0002 (-0.092)	0.002 (1.628)	0.003*** (20810)
Age	0.006* (1.956)	0.006*** (3.148)	0.007*** (3.818)
Group	0.076 (1.220)	0.064* (1.682)	0.070* (1.867)
Industry	Yes	Yes	Yes
Observations	1402	1402	1402
Log likelihood	-1218.889	-612.4141	-605.6271

following two years. The results show that CEO media coverage has no impact on the ROA, and the non-group couldn't improve ROA.

Comparing column one (three) in Table 3 and column two in Table 4, concurrent year ROA positively and significantly influence CEO media coverage. As the CEO media also has positive significant influence on concurrent year ROA, which might exist an interactive relation. We use Hausman (1978) to test endogeneity and find the Lagrange Multiplier is 1.267, with the  $p$ -value of 0.325 not significant, so it doesn't produce bias estimator by using OLS.



**Table 4**  
**The Impact of CEO Media Coverage on Firm's Accounting Performance**

Dependent variable is ROA. The definitions of other variables are the same in Table 1. The t value is presented in parentheses. \*, \*\*, and \*\*\* indicate significantly different from zero at 10%, 5%, and 1%.

Variable	t		t+1		t+2	
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-0.022 (-0.565)	-0.027 (-0.708)	0.003 (0.094)	0.003 (0.077)	-0.096** (-2.074)	-0.090* (-1.931)
Media	-0.005 (-0.716)	0.225*** (3.706)	-0.009 (-1.480)	0.091 (1.359)	-0.031*** (-4.063)	-0.097 (-0.864)
Size	0.005* (1.939)	0.004* (1.656)	0.003* (1.665)	0.003 (1.534)	0.018*** (6.326)	0.018*** (6.426)
BM	-0.018*** (-3.483)	-0.017*** (-3.489)	-0.056*** (-10.778)	-0.056*** (-10.768)	-0.106 (-7.022)	-0.107*** (-6.973)
Debt	-0.002*** (-6.379)	-0.002*** (-6.472)	-0.001*** (-7.229)	-0.001*** (-7.369)	-0.002*** (-10.761)	-0.002*** (-10.790)
Wage	0.009*** (3.786)	0.010*** (4.290)	0.011 (5.130)	0.011*** (4.747)	0.009*** (3.351)	0.008*** (2.950)
Group	-0.016*** (-3.033)	-0.007 (-1.139)	-0.017*** (-3.579)	-0.012** (-2.322)	-0.032*** (-5.116)	-0.033*** (-5.061)
Wage × Media		-0.004 (-0.897)		0.001 (0.224)		0.007 (0.932)
Group × Media		-0.197*** (-3.965)		-0.114*** (-2.778)		0.003 (0.039)
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1402	1402	1402	1402	1402	1402
Adj R <sup>2</sup>	0.279	0.288	0.384	0.386	0.417	0.418

In order to analyze the impact of CEO media coverage on ROA, we use the concept of DuPont equation to decompose the ROA into asset turnover and profit margin. The former is to measure the management efficiency and the latter is to measure the profitability.<sup>13</sup> Table 5 shows the results. The Media coefficient is 0.916 in model (2), which means CEO media coverage could positively and significantly influence concurrent ROA. This implies that CEO media coverage

<sup>13</sup> The definition of ROA is the percentage of Net Income-Exc Dispo divided with average net asset. We use the concept of DuPont equation to decompose ROA into sales divided average net asset (asset turnover) and Net Income-Exc Dispo divided sales (profit margin).

**Table 5**  
**The Impact of CEO Media Coverage on Firm's Management Efficiency and Profitability**

Dependent variables are Asset Turnover and Profit Margin. The definitions of other variables are the same in Table1 and Table3. The t value is presented in parentheses. \*, \*\*, and \*\*\* indicate significantly different from zero at 10%, 5%, and 1%.

	Asset Turnover						Profit Margin					
	t		t+1		t+2		t		t+1		t+2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	1.782*** (9.617)	1.767*** (9.502)	1.565*** (8.584)	1.567*** (8.635)	1.536*** (8.024)	1.527*** (8.033)	-0.420 (-1.527)	-0.432* (-1.653)	-0.249 (-1.114)	-0.232 (-1.075)	-0.227 (-0.152)	0.017 (0.011)
Media <sub>t</sub>	0.066 (1.486)	0.916** (1.998)	0.027 (0.725)	0.475 (0.950)	0.043 (1.124)	0.655 (1.353)	-0.066 (-1.532)	0.417 (1.053)	-0.087** (-2.052)	-0.199 (-0.412)	-0.481 (-0.891)	-3.807* (-1.695)
Size	-0.099*** (-7.692)	-0.102*** (-7.812)	-0.086*** (-7.056)	-0.087*** (-6.950)	-0.087*** (-6.920)	-0.089*** (-6.940)	0.042** (2.565)	0.040** (2.399)	0.054*** (2.603)	0.055** (2.463)	0.245 (1.246)	0.259 (1.283)
BM	-0.058*** (-3.644)	-0.057*** (-3.656)	-0.186*** (-8.498)	-0.184*** (-8.366)	-0.170*** (-5.636)	-0.165*** (-5.475)	-0.064** (-2.474)	-0.063** (-2.463)	-0.185*** (-2.872)	-0.184*** (-2.894)	-0.346 (-1.098)	-0.362 (-1.123)
Debt	0.004*** (5.119)	0.004*** (5.085)	0.005*** (5.793)	0.004*** (5.742)	0.005*** (6.709)	0.005*** (6.651)	-0.009*** (-2.660)	-0.009*** (-2.639)	-0.011** (-2.467)	-0.011** (-2.456)	-0.041 (-1.354)	-0.041 (-1.358)
Wage	0.040*** (3.552)	0.042*** (3.703)	0.056*** (5.286)	0.054*** (4.934)	0.055*** (4.886)	0.055*** (4.896)	0.027 (0.785)	0.029 (0.978)	0.004 (0.342)	-0.001 (-0.094)	-0.170* (-1.774)	-0.217* (-1.868)
Group	0.011 (0.343)	0.047 (1.354)	0.012 (0.365)	0.038 (1.063)	-0.013 (-0.378)	0.015 (0.424)	-0.070 (-1.312)	-0.052 (-0.850)	-0.078 (-1.079)	-0.071 (-0.923)	-0.100 (-0.905)	-0.157 (-1.567)
Wage × Media		-0.007 (-0.276)		0.019 (0.497)		0.005 (0.145)		-0.010 (-0.336)		0.036 (0.755)		0.265* (1.969)
Group × Media		-0.789* (-1.957)		-0.616 (-1.503)		-0.658 (-1.596)		-0.397* (-1.701)		-0.204 (-0.974)		1.007 (0.979)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402
Adj R <sup>2</sup>	0.186	0.189	0.210	0.212	0.194	0.197	0.021	0.021	0.028	0.028	0.028	0.029

could influence public cognition, which might increase the sales that could improve the management efficiency. CEO media would have a  $-3.807$  impact on the following two years due to the decline in profitability. This means the ability to improve sales and control cost decreases.

Before including Wage $\times$ Media and Group $\times$ Media in Table 4 and Table 5, the impact of Media on corporate operating performance is insignificant because other variables have influence on different directions. After including the interaction terms of Wage $\times$ Media and Group $\times$ Media, we could observe the net effect of Media. The coefficient of Media on concurrent term is positive, but negative in the following two year terms. The results mean that the CEO media coverage could improve the company reputation to attract more customers, so CEO media coverage could positively influence accounting performance in the short term. But the negative impact would appear especially on profitability over the long period resulting from the CEO engaging to be exposed to media, which neglects the management efficiency and operating conditions of the company.

### **4.3 CEO Media Coverage and Firm's Market Performance**

In order to analyze the relation between CEO media coverage and a firm's market return, we use the OLS to estimate, and Table 6 documents the results. The dependent variable of columns one, three and five is the market performance in year  $t$ ,  $t+1$ , and  $t+2$ , and the independent variable is CEO media coverage index. We find that the increase in CEO media coverage would lead stock returns to significantly decline in the concurrent and the next two years.

Comparing the column two (three) in Table 3 and column one (two) in Table 6, the concurrent stock return could negatively and significantly influence CEO media coverage, and the CEO media coverage also has negative significant influence on stock returns; there might be interactional influence. We use Hausman (1978) to test endogeneity, and the result is not significant ( $P$ -value=0.452), so it doesn't produce bias estimator by using OLS.

Concurrent stock return has negative significant influence on CEO media coverage because the CEO tries to be exposed to the media in order to change the public's impression or the media report more when a firm's stock performance is

poor. And that the CEO media coverage negatively and significantly influences concurrent year return might be associated with information asymmetry and stock price overreaction.

Table 6 shows that the CEO media coverage in year  $t$  would erode the stock return in year  $t$ ,  $t+1$ , and  $t+2$ . We discuss the reasons, and firstly we discuss them from the vantage of information. Merton (1987) and Easley and O'Hara (2004) point out the information risk would influence the cross-sectional stock return. Bushee et al (2007) further suggests the company with high media coverage could improve the public's understanding for the firm that decreases the information asymmetry. Fang and Peress (2007) documents that a company with non-media coverage would perform better than a company with media coverage because media could decrease company information risk, which influences the cost of capital. We think the company with low media coverage has high information asymmetry, so the investor who holds its stock should get higher risk premium to cover the problem of adverse selection. So, the relation between CEO media coverage and stock returns is negative.

From the investor trading behavior, Milbourn (2003) points out the media coverage is the approach to represent the CEO's reputation. Urrutia and Vu (1999) and Klibanoff, Lamont and Wizman (1998) both find stock and fund's liquidity would significantly increase when they appear in media reports. Meschke (2004) reports that when a CEO accepts the media interview, the stock price would raise 1.65% and has higher volume; Tetlock (2007) points out the media's pessimistic report would make the stock price drop, then the price would reverse. Barber and Odean (2008) find individual investors are more easily influenced by media than institutional investors. Individual investors would overreact in high media coverage stock and buy the stock at high price, which makes the stock return decline. According to the above literatures, we include the  $BSR \times Media$  and  $Institution \times Media$  in column two, four and six in Table 6. After including the interaction terms, we find the impact of CEO media coverage on stock return becomes insignificant due to the different behavior between individual and institutional investors. When BSR is higher, the stock return is higher. After

**Table 6**  
**The Relation Between CEO Media Coverage and**  
**Firm's Market Performance**

Dependent variable is market adjusted return. The definitions of other variable are the same in Table1 and Table3. The t value is presented in parentheses. \*, \*\*, and \*\*\* indicate significantly different from zero at 10%, 5%, and 1%.

Variable	t		t+1		t+2	
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-0.814 (-0.830)	-0.917 (-0.931)	-0.786 (-0.731)	-0.691 (-0.645)	1.471** (2.444)	1.462** (2.421)
Media	-1.028*** (-4.066)	-1.463*** (-3.106)	-0.535** (-2.160)	0.173 (0.512)	-0.330*** (-2.588)	-0.296 (-1.174)
BSR	0.099*** (5.031)	0.092*** (4.423)	0.087*** (5.327)	0.111*** (6.160)	0.049*** (6.152)	0.053*** (6.403)
Institution	0.018** (3.748)	0.018*** (3.508)	0.019*** (4.304)	0.019*** (4.151)	0.009*** (4.733)	0.008*** (3.974)
BSR × Media		0.048 (1.004)		-0.089*** (-3.098)		-0.011* (-1.641)
Institution × Media		-0.0005 (-0.146)		0.0007 (0.238)		0.003 (1.332)
Size	0.421*** (4.148)	0.437*** (4.265)	0.061 (0.610)	0.037 (0.374)	0.007 (0.128)	0.003 (0.065)
BM	-0.645*** (-5.511)	-0.646*** (-5.518)	0.991*** (3.642)	1.009*** (3.723)	-1.782*** (-8.451)	-1.767** (-8.383)
Debt	0.025** (2.485)	0.025** (2.517)	0.031** (3.203)	0.032*** (3.253)	-0.006 (-1.169)	-0.006 (-1.147)
ROA	0.052** (2.419)	0.052** (2.447)	0.087*** (4.080)	0.084*** (3.975)	0.067*** (6.274)	0.068*** (6.360)
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1402	1402	1402	1402	1402	1402
Adj R <sup>2</sup>	0.143	0.143	0.148	0.154	0.334	0.336

including the BSR×Media, we find that the higher is BSR and CEO media coverage, the more the stock return would significantly decrease in the following one and two years, with the coefficients being -0.089 and -0.011. We also observe higher Institution and CEO media coverage doesn't significantly influence stock returns.

We find that CEO media coverage has lasting negative impact on market performance; the main reasons might be information asymmetry and the investor's trading behavior. The results are summarized as follows: first, the firms with lower CEO media coverage have higher information asymmetry. And their

stock returns are higher because of the information risk. Second, BSR could raise the stock return, but high BSR and CEO media might decrease the stock return. This means the individual investors might overreact to the company with high CEO media coverage, so the substantial decrease in BSR would make the stock return drop significantly. Individual investors buying the stock with high CEO media coverage at high price couldn't earn positive return.

## **5. The Effects of Tone and Type of Media Report on Firm's Performance**

In addition to analyzing the impact of CEO media coverage on corporate performance, this section analyzes whether the different tone and type of media report towards the CEO has impact on corporate performance.

### **5.1 The Effects of Tone and Type of Media Report on Firm's Accounting Performance**

We analyze the impact of tone and type of media report on corporate accounting performance, with the results shown in Table 7. Panel A of Table 7 shows that a CEO exposed in positive media reports would raise the concurrent and following year ROA; to the contrary, a CEO exposed in negative media reports would decline the ROA. As for the impact of type of media report on ROA, company-related would positively and significantly improve ROA, but the CEO-related has no effect on ROA. CEO in non-group firms could improve ROA by exposing to positive and company-related media reports.

We further decompose ROA, and Panel B of Table 7 shows that asset turnover would drop because the CEO is exposed in negative reports. If the CEO in group firms is exposed in negative reports this would erode the company more easily, which drops asset turnover. A CEO in non-group firms could improve a firm's management efficiency by exposing in company-related reports. Panel C of Table C reports the profitability would significantly improve because the CEO is exposed in positive news. The CEO in non-group firms could improve a firm's profitability by being exposed in company-related news.

## **5.2 The Effects of Tone and Type of Media Report on Firm's Market Performance**

We use OLS to estimate the impact of the tone of media report on market performance; the results are reported in Table 8. First, we analyze the impact of tone of media report on firm's market performance. Table 8 shows that a positive report of the CEO has negative impact on the year  $t$ , year  $t+1$ , and year  $t+2$  stock return; the effect lasts two years. Negative reports of the CEO have negative impact on concurrent stock return, but are positive on the following year stock return. This result is consistent with Urrutia and Vu (1999) and Tetlock (2007). In buying behavior, investors' reactions to positive reports are stronger than reactions to negative reports, so investors would buy the stock with more positive reports at higher price that raise the stock price. This represents that investors would overprice the stock with positive CEO reports and underprice the stock with negative CEO reports, which induce the overreaction. Taking the interaction term about investor buying behavior and the tone of media report into account, the individual investors and institutional investor reverse in the next two years. The higher  $BSR \times Positive$  would negatively influence the firm's market performance, and the higher  $Institutional \times Negative$  would positively influence the firm's market performance.

In the following we discuss the effect of CEO company-related, and CEO-related media reports on firm's market performance. We find CEO company-related news would negatively and significantly influence stock return, while CEO-related media coverage also negatively influences a firm's market return, but insignificantly. After controlling investor behavior, we find higher  $BSR \times Company$  would negatively influence stock return in the following two years.

## **6. Conclusions**

Traditional finance theories view people as rational agents. Being that only the CEO could change the public's cognition about the company- which changes the situation of corporate operating through media coverage- CEO media

coverage doesn't have effect on a firm's long-term stock returns. From another viewpoint, behavioral finance argues that the firm's stock return might reflect the change of the investors' valuation of a firm from a psychological factor. If CEO media coverage could change the public's cognition about a company, it also might have impact on investors' decision-making. Even though CEO media coverage couldn't change a corporation's operating situation, it does have impact on a firm's long period stock returns.

Our empirical evidence shows that having a CEO often exposed to the media would influence the public's cognition about the firm. The CEO's reputation could raise the firm's reputation thus bringing more customers, so the CEO's media coverage could positively influence concurrent year accounting performance. In the long run, however, the negative impact would appear in profitability because the CEO participates in media activity and neglects the operating situation, with the ability of controlling costs decreasing. We find the tone of the media has a large impact on accounting performance. The higher the CEO is exposed in positive media reports, the greater the raise in profitability, and the ROA improves significantly. When the CEO has more negative media reports, however, this would decline the operating efficiency, and the ROA decreasing significantly will be different from the results of market performance. Even more interesting is when comparing with group firms: the CEO in non-group firms could raise more accounting performance by media coverage. As for the tone and type of media reports, the CEO in the non-group firm could improve a firm's accounting performance by positive or company-related media coverage.

The results of this paper also find firms with high CEO media coverage have lower returns than firms with low CEO media coverage. The results are summarized as follows: first, the lower the media coverage, the higher the CEO media coverage would improve the public's understanding of the firm which decreases information asymmetry. As such, the firms with low CEO media have higher information risk, and their stock returns are higher. Second, CEO media coverage could influence the stock market investors' cognition (the individual investors are influenced most) about the firm that influences their investing behavior. The noise trader lacks information and professional knowledge, so they



**Table 7**  
**The Impact of Tone and Type of Media Reports on Firm's Accounting Performance**

Dependent variables are ROA, Asset Turnover, and Profit Margin. The definition of Positive (Negative) is the percentage of positive (negative) reports to total reports the definition of Company (Personal) is the percentage of company-related (person-related) reports to total reports in j company. The definitions of other variables a Table1 and Table3. The t value is presented in parentheses. \*, \*\*, and \*\*\* indicate significantly different from zero at 10%, 5%, and 1%.

Panel A Dependent Variable : ROA												
	t			t+1				t+2				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	-0.011 (-0.331)	-0.002 (-0.064)	-0.036 (-0.825)	-0.049 (-1.155)	0.021 (0.656)	0.029 (0.888)	-0.002 (-0.056)	-0.004 (-0.094)	-0.032 (-0.751)	-0.028 (-0.631)	0.001 (0.030)	-0.028 (-0.580)
Positive	0.024*** (4.432)		0.056 (1.288)		0.019*** (4.079)		0.061 (1.355)		0.004 (0.703)		-0.078 (-1.322)	
Negative	-0.031** (-2.104)		0.043 (0.276)		-0.037** (-2.824)		0.096 (1.472)		-0.016 (-0.620)		-0.041 (-0.722)	
Company		0.017*** (3.164)		0.055 (1.330)		0.010** (2.136)		0.037 (0.851)		0.009 (1.315)		-0.048 (-0.930)
Personal		0.0004 (0.094)		0.054 (1.542)		0.002 (0.589)		0.048 (1.329)		-0.004 (-0.661)		0.055 (1.308)
Size	0.003 (1.399)	0.003 (1.203)	0.003 (1.602)	0.003 (1.432)	0.002 (0.818)	0.001 (0.681)	0.001 (0.779)	0.002 (0.841)	0.013*** (4.986)	0.013*** (4.842)	0.013*** (4.963)	0.013*** (4.968)
BM	-0.016*** (-3.240)	-0.017*** (-3.578)	-0.016*** (-3.254)	-0.017*** (-9.687)	-0.053*** (-10.421)	-0.056*** (-10.775)	-0.053*** (-10.525)	-0.055*** (-10.686)	-0.104*** (-7.110)	-0.105*** (-7.098)	-0.104*** (-7.320)	-0.104*** (-7.050)
Debt	-0.002*** (-6.144)	-0.002*** (-6.315)	-0.002*** (-6.133)	-0.002*** (-10.938)	-0.001*** (-6.973)	-0.001*** (-7.137)	-0.001*** (-7.009)	-0.001*** (-7.157)	-0.002*** (-10.366)	-0.002*** (-10.517)	-0.002*** (-10.439)	-0.002*** (-10.578)
Wage	0.009*** (3.884)	0.009*** (3.883)	0.010*** (2.866)	0.012*** (3.240)	0.011*** (5.143)	0.011*** (5.147)	0.014*** (3.511)	0.014*** (2.916)	0.010*** (3.385)	0.010*** (3.498)	0.005* (1.721)	0.008** (2.547)

Group	-0.013** (-2.541)	-0.015*** (-2.834)	-0.004 (-0.441)	0.001 (0.143)	-0.015*** (-3.259)	-0.016*** (-3.507)	-0.013* (-1.943)	-0.006 (-0.854)	-0.031*** (-4.982)	-0.031*** (-4.925)	-0.030*** (-4.046)	-0.024*** (-3.140)
Wage × Positive			-0.002 (-0.443)				-0.005 (-0.913)				0.011 (1.553)	
Wage × Negative			-0.008 (-0.406)				-0.017** (-2.326)				-0.003 (-0.427)	
Group × Positive			-0.022** (-1.960)				-0.004 (-0.461)				-0.007 (-0.576)	
Group × Negative			-0.016 (-0.495)				0.005 (0.185)				0.062 (1.601)	
Wage × Company				-0.002 (-0.493)				-0.002 (-0.345)				0.008 (1.256)
Wage × Personal				-0.005 (-1.309)				-0.005 (-1.210)				-0.006 (-1.279)
Group ×Company				-0.028** (-2.449)				-0.020** (-2.125)				-0.007 (-0.506)
Group ×Personal				-0.015 (-1.392)				-0.006 (-0.785)				-0.015 (-1.128)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402
Adj R <sup>2</sup>	0.297	0.286	0.299	0.292	0.397	0.385	0.399	0.389	0.410	0.410	0.414	0.413

Panel B Dependent Variable : Asset Turnover												
	t			t+1				t+2				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	1.597*** (9.043)	1.643*** (9.288)	1.555*** (6.423)	1.716*** (7.716)	1.469*** (8.468)	1.513*** (8.722)	1.478*** (7.456)	1.563*** (7.636)	1.411*** (7.785)	1.455*** (8.014)	1.184*** (4.843)	1.185*** (5.747)
Positive	0.027 (0.761)		-0.044 (-0.170)		0.017 (0.458)		-0.148 (-0.674)		0.024 (0.676)		0.362 (1.398)	
Negative	-0.187** (-2.718)		0.802 (1.328)		-0.202** (-2.943)		0.431 (1.384)		-0.200** (-2.751)		0.477 (1.024)	
Company		0.010 (0.307)		-0.074 (-0.369)		-0.008 (-0.263)		-0.220 (-1.208)		0.007 (0.229)		0.198 (1.134)
Personal		0.012 (0.455)		-0.094 (-0.552)		0.017 (0.611)		0.059 (0.337)		0.011 (0.370)		0.393** (2.213)
Size	-0.088*** (-7.385)	-0.090*** (-7.465)	-0.086*** (-6.401)	-0.087*** (-7.206)	-0.081*** (-7.064)	-0.083*** (-7.142)	-0.079*** (-6.919)	-0.079*** (-6.850)	-0.079*** (-6.835)	-0.082*** (-6.940)	-0.077*** (-5.614)	-0.078*** (-6.703)
BM	-0.053*** (-3.214)	-0.058*** (-3.623)	-0.052*** (-4.717)	-0.058*** (-3.593)	-0.180*** (-8.264)	-0.188*** (-8.536)	-0.176*** (-8.170)	-0.184*** (-8.304)	-0.161*** (-5.074)	-0.170*** (-5.651)	-0.156*** (-4.854)	-0.162*** (-5.426)
Debt	0.004*** (5.230)	0.004*** (5.035)	0.004*** (4.791)	0.004*** (5.160)	0.005*** (5.995)	0.004*** (5.790)	0.005*** (6.012)	0.004*** (5.811)	0.005*** (6.904)	0.005*** (6.694)	0.005*** (6.543)	0.005*** (6.836)
Wage	0.040*** (3.500)	0.040*** (3.536)	0.037* (1.847)	0.017 (0.885)	0.056*** (5.277)	0.056*** (5.244)	0.047*** (3.061)	0.034** (2.090)	0.053*** (4.773)	0.054*** (4.844)	0.071*** (3.743)	0.070*** (4.289)
Group	0.012 (0.366)	0.010 (0.299)	0.059 (1.309)	0.096** (2.237)	0.013 (0.393)	0.011 (0.327)	0.052 (1.240)	0.096** (2.273)	-0.012 (-0.349)	-0.013 (-0.398)	0.047 (1.009)	0.096** (2.260)
Wage × Positive			0.015 (0.493)				0.025 (0.886)				-0.033 (-1.097)	
Wage × Negative			-0.093 (-1.253)				-0.043 (-1.164)				-0.047 (-0.867)	
Group × Positive			-0.081 (-1.143)				-0.061 (-0.823)				-0.107 (-1.472)	
Group × Negative			-0.338* (-1.689)				-0.404** (-2.338)				-0.432** (-2.054)	
Wage × Company				0.023 (0.935)				0.059 (1.662)				-0.009 (-0.413)
Wage ×				0.022				0.002				-0.036*

Personal				(1.136)				(0.097)				(-1.709)
Group				-0.144**				-0.153**				-0.177**
×Company				(-2.259)				(-2.272)				(-2.536)
Group				-0.100				-0.079				-0.124
×Personal				(-1.665)				(-1.333)				(-2.126)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402	1402
Adj R <sup>2</sup>	0.189	0.185	0.194	0.192	0.214	0.210	0.218	0.217	0.198	0.194	0.203	0.202

Table 8

### The Impact of Tone and Type of Media Reports on Market Performance

Dependent variable is market adjusted return. The definition of Positive (Negative) is the percentage of positive (negative) reports to total reports in j company; the definition of Company (Personal) is the percentage of company-related (person-related) reports to total reports in j company. The definitions of other variable are the same in Table1 and Table3. The t value is presented in parentheses. \*, \*\*, and \*\*\* indicate significantly different from zero at 10%, 5%, and 1%.

	t			t+1				t+2				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	-0.136 (-0.140)	-0.207 (-0.214)	-0.165 (-0.170)	-0.052 (-0.053)	-0.099 (-0.094)	-0.560 (-0.528)	-0.062 (-0.059)	-0.559 (-0.526)	1.790*** (3.020)	1.566*** (2.639)	1.665*** (2.805)	1.385** (2.328)
Positive	-0.007 (-1.623)		-0.008* (-1.771)		-0.011*** (-3.123)		-0.011*** (-2.814)		-0.008*** (-4.257)		-0.005*** (-2.719)	
Negative	-0.012 (-1.269)		-0.019* (-1.801)		0.019** (1.997)		0.026** (2.449)		0.004 (0.851)		0.004 (0.641)	
Company		-0.007* (-1.883)		-0.009** (-2.120)		-0.007** (-2.099)		-0.007* (-1.830)		-0.006*** (-3.195)		-0.003* (-1.659)
Personal		-0.007** (-1.964)		-0.008** (-2.259)		-0.005 (-1.589)		-0.005 (-1.513)		-0.004** (-2.347)		-0.003 (-1.534)
BSR	0.102*** (5.169)	0.101*** (5.094)	0.078** (2.303)	0.048 (1.348)	0.087*** (5.357)	0.088*** (5.360)	0.107*** (3.312)	0.093** (2.553)	0.044*** (5.664)	0.045*** (5.656)	0.071*** (5.876)	0.081*** (6.485)
Institution	0.018*** (3.593)	0.018*** (3.643)	0.012* (1.757)	0.020** (2.581)	0.019*** (4.250)	0.019*** (4.260)	0.018*** (2.830)	0.018*** (2.609)	0.009*** (4.859)	0.009*** (4.866)	0.007** (2.549)	0.008 (2.610)
BSR ×			0.0003				-0.0002				-0.006***	



are easily influenced by CEO media coverage on decision making, which is according to a CEO's reputation. They would overprice the stock with high CEO media coverage and underprice the stock with low CEO media coverage, which induces the overreaction. In addition, we divide the content of CEO media coverage: CEO positive news has negative impact on the following two year stock returns, but negative news has a positive impact, which verifies the overreaction again. Investors would overprice the stock price when their CEO is often exposed in positive news and underprice the stock when their CEO is often exposed in negative news, which makes the CEO media coverage have negative impact on a firm's market performance.

Economics and Fortune both have articles arguing that people shouldn't make investment decisions by following a CEO's reputation. Instead, people should make decision according to fundamentals, and inspect the firm's financial performance and operating situation. The results of this paper also suggest that highly reputable CEOs with high media coverage are unable to raise a firm's performance, but they do raise external costs to decrease a firm's performance with the negative impact lasting two years. The adoration of CEOs should come down.

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