Is More News Good News?
Media Coverage of CEOs, Firm Value, and Rent Extraction

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ABSTRACT

This paper provides empirical evidence that media coverage of CEOs, a channel of investor recognition, significantly increases firm value, measured by Tobin's q. The result is robust to alternative econometric methods and checks of causality. Firms with the highest level of CEO media coverage and positive coverage outperform those with the lowest levels by 8 and 7 percent per year, respectively, in abnormal stock returns. Media coverage also impacts CEO rent extraction through compensation. Subsequent total pay rise is 4.1 percent above and beyond what CEOs obtain from the increase in firm value that arises due to media coverage.

Keywords: *Media Coverage of CEO, Firm Value, CEO Compensation, Rent Extraction, Corporate Governance.*

JEL Classifications: *G30, G39, G12, G14*

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1. Introduction

In a world of incomplete information, the degree of investor knowledge of assets and firms should be an important determinant of investment decisions and of firm value. Merton (1987) states that "an investor must at least know the firm before deciding whether to purchase the stock or acquire more information." In his model, each investor knows only a subset of available stocks and invests only in the stocks of which she is "aware." One of the model's predictions is that investor recognition of stocks is a determinant of firm value: an increase in "the degree of investor recognition" will reduce the cost of capital and increase firm value.

Prior literature has provided evidence of the impact of investor recognition on investor behavior, shareholder base, and stock liquidity. However, evidence of the impact of investor recognition on firm value remains scant. This paper attempts to contribute to the literature by investigating the effect of media coverage of CEOs, as a factor of "investor recognition," on firm value, and on CEO ability to extract rents in the form of compensation.

Investors can "recognize" a firm through many channels. Our paper focuses on one channel—the media coverage of CEOs—as there is indication that CEOs have become more visible to investors and have assumed tasks that are not related merely to management, but to public relations. In some cases, the press has devoted more coverage to CEOs than to firms (Hamilton and Zeckhauser (2004)).[1] As a result, some CEOs become not only the public face of the company, but its actual embodiment (Fisman et al., forthcoming). There has been some evidence that investors are influenced by media coverage of CEOs. A survey of institutional investors by Russell Reynolds Associates (2003) documents, for example, that the presence of a "high-profile" CEO is one of the factors influencing investment decisions.

Our paper's main hypothesis is that the probability that a firm is known, and credited by investors increases with the incidence of the CEO's appearance in the media and the quality of media coverage. Because of incomplete information, investors rely at least partially on public information to make decisions. Media coverage may help removing some uncertainty, bringing in more transparency, adding credibility, and highlighting the viability of future projects. Through their coverage, firms might become more credible, more familiar to investors, and thus more valuable. Merton (1987, page 500) notes: "A newspaper or other mass media story about the firm or its

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[1] For example, in 2000, Jack Welch of General Electric figured 30 times in the headline or cover page of the world leading media outlets, including *Business Week*, the *Financial Times*, and *Newsweek*. These data result from a search in the Lexis-Nexis Executive database.)

industry that reaches a large number of investors who are not currently shareholders, could include some of this number to incur the set-up costs and follow the firm ... these investors would evaluate the detailed substantive information about the firm, become shareholders, and the value of the firm would rise." Information collection, though largely available on the internet or other open sources, is still time-consuming and sometimes costly (Dyck and Zingales (2003)). By including a piece of news on CEOs, media outlets such as newspapers may change the cost of information for investors and provide credibility and reputation for firms and CEOs. In the context of investors' limited knowledge, media coverage of CEOs might help reducing investors' "home bias," or their preference to invest in domestic stocks or stocks they know about (French and Poterba (1991), Coval and Moskowitz (1999), and Huberman (2001)). Media coverage might be even more important for individual and uninformed investors because they face a significant growing number of stocks of listed companies. Barber and Odean (2008, page 786) note that "When buying a stock, investors are faced with a formidable search problem. There are thousands of common stocks from which to choose. There are cognitive—and temporal limits—to how much information we process." Thus, even news which is not new, but disseminated by credible media, still wields impact on investors and increases firm value.

Based on two indices of media coverage and positive coverage of Fortune 500 CEOs between 1992 and 2002, our empirical analysis provides a number of findings.[2] First, media coverage and positive coverage of CEOs positively impact firm value, as measured by Tobin's q. The result is robust to various causality checks and alternative econometric methods. Second, the economic impact of media coverage is significant. Portfolios of firms with lower media coverage of CEOs are associated with lower subsequent abnormal returns. Portfolios of firms in the highest quintiles of the indices of media coverage and positive media coverage outperform those in the lowest quintiles by 8 and 7 percent per year, respectively, over the sample period. Third, media coverage helps CEOs extract rents in the form of compensation. CEOs appear to enjoy a pay rise above and beyond what they obtain from the increase in firm value that arises due to media coverage. For an average CEO in the sample, media coverage is associated with a CEO pay rise of $295,830, which amounts to 4.1 percent of the average CEO total pay of $7.23 million. The effect is stronger for positive media coverage.

To my knowledge, this paper is among the first to investigate the impact of media coverage of

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[2] Fortune 500 companies are, by definition, already well known among investors. If we still find a media effect on investor recognition on these firms, the result is expected to be stronger with respect to firms that are less well known.

CEOs on firm value, and differs from related previous research in several ways. First, while other papers use an event study approach to measure the impact (namely drift and reversal) of specific news releases or announcements on stock prices, this paper uses a long-term approach to show the effects of aggregate volume of news and positive news on firm value. Chan (2003), for example, uses event studies to investigate stock reaction after a news release in headlines, and finds that stocks with negative returns and a news story underperform their size-, book-to-market, and return-matched peers. Stocks with good news show less drift. In a similar approach, Meschke (2004) relies on event studies to measure the impact of specific news (CEO interviews on CNBC) on stock price and trading volume. Second, in contrast to the many papers that study market under- or overreactions to specific good or bad news, this paper does not make such a distinction, but focuses instead on the effects of aggregate volume of news, including bad and good news, on firm valuation. In this aspect, the paper is more related to Mitchell and Mulherin (1994). The empirical evidence resulting from panel data analysis suggests that the aggregate level of both "good" news and "bad" is good for firm value in the long-run.

Our study relies on, and is related to several strands of literature on the impact of media coverage. Cutler, Poterba, and Summers (1989) investigate the relationship between media coverage and movement of stock prices. In line with Niederhoffer (1971), they find that media coverage cannot explain stock prices or aggregate price movements. These results support the view that the media play little role, repeat only already-known news, and do not convey useful information. By contrast, many other papers find supporting evidence on the real impact of media coverage. Mitchell and Mulherin (1994) document that the daily number of news reports released by Dow Jones and aggregate measures of overall market activities, including trading volume and market returns, are directly related and share common day-of-the week patterns. Huberman and Regev (2001) find that news of a cancer-cure drug reported in the *New York Times*, which was previously made public, still caused stock price to quadruple the following day. Meschke (2004) documents that CEO interviews on CNBC, which are non-events per se, lead to a significant price increase of 1.65 percent and higher trading volume on the interview day. Antweiler and Frank (2004) find that a positive shock to the message board posting predicts negative returns on the next day. Grullon, Kanatas, and Weston (2004) document that greater advertising expenditure, as a proxy for a firm's visibility, leads to a larger number of both individual and institutional investors, and better liquidity. Tetlock (2007) finds that levels of media pessimism in the daily content of a column in the *Wall Street Journal* predict downward pressure on market prices and affect market trading volume. Barber and Odean (2008)

find that individual investors tend to be net purchasers of stock on "high attention" days (days of high abnormal trading volume and extreme price movement), and days where stocks are "in the news". Core, Guay, and Larcker (2008) find that negative coverage on executive pay is more related to excess annual pay than to raw annual pay. Kuhnen and Niessen (2012) find that the content of media coverage, a proxy for social norms on executive compensation, does impact executive pay.

Our work is perhaps more closely related to Fang and Peress (2009) who find that stocks with no media coverage earn higher returns than stocks with high media coverage. Their results seem to be opposite to ours. However, their paper focuses on media coverage of firms, while we focus on media coverage of CEOs. Moreover, we study the media coverage of CEOs of large and well-known firms, while their paper investigates the difference in stock returns between firms with high level of media coverage and firms with no media coverage. Several recent papers also study the impact of media coverage in different contexts such as in IPOs (Liu at al. (2013)), through Google search (Da et al. (2011)), in mergers and acquisitions (Ahern et al. (2014)), and through "spin" of investor relations' firms (Solomon (2012)).

Our paper contributes to the literature in several lines. First, our empirical evidence sheds light on the rationale of firms and CEOs in the process of building up communication and media coverage, and on the impact of media coverage on firm value, an important prediction of Merton's model. Second, we contribute to a growing literature related to investors' behavior (home bias (Coval and Moskowitz, 1999), familiarity (Huberman, 2001), cognitive limits of investors (Barber and Odean, 2008)) and the media's role in the economy (Dyck and Zingales (2002, 2003), Dyck et al. (2008), Mullainathan and Shleifer (2005)).

The paper proceeds as follows. Section 2 presents the database and the indices. Section 3 studies the relationship between media coverage of CEOs and firm valuation. Section 4 reports checks of robustness. Section 5 and Section 6 measure the impact of media coverage on firm valuation and CEO rent extraction, respectively. Section 7 concludes.

2. Data and indices of media coverage

2.1. Sample

The sample includes firms on Fortune 500 lists from the period between 1992 and 2002. I choose 1992 as the starting year because it is the year when Execucomp becomes available, providing detailed data on CEOs. I first study the sample of 241 firms present for 11 consecutive years and later extend the sample to firms present at least 6 out of 11 years of the sample period.

Stock prices are from the Center for Research in Security Prices (CRSP). I obtain first, middle, and last names of CEOs, and data related to executive compensation and financial ratios from Execucomp, Gompers-Ishii-Metrick (GIM) index from the Investment Responsibility Research Center (IRRC) database, and accounting data from Compustat. Fama-French HML, SMB, RMRF, and momentum factors are available from Kenneth French's web page.

I merge data from all these sources into a single database and compute Tobin's q for each firm at the end of each year. Panels A and B of Table 1 show descriptive statistics of firms and CEOs. Firms in the sample are large, with average sales of $14 billion, assets of $34 billion, and market value of $20 billion. Maximum annual sales reach $206 billion (Exxon Mobil, in 2000). Maximum market value is $507 billion (General Electric, in 1999).

The average CEO earns cash compensation (salary and bonuses) of $2.06 million, with a maximum of $43.5 million (Steve Jobs of Apple, in 2001). The highest total CEO compensation, excluding exercised options, is $575.6 million (Michael Eisner of Disney, in 1998). The highest total compensation, including exercised options, reaches $600.3 million (Steve Jobs, in 2000).

[Insert Table 1 here]

2.2. Construction of media coverage indices

The principal challenge of this research is to find a way to quantify CEO exposure to media, which, to my knowledge, has not been hitherto developed. Thus, I construct a set of indices based on a search in the Lexis-Nexis database with a system of filters. I have basically two choices of sources of news. The first is to choose a unique media outlet as the source of reference. The advantage of this method is to avoid the double counting of news and the noise caused by non-mainstream newspapers. However, this advantage has to be weighed against the risks of missing news and limited coverage. Veldkamp (2006) and Hamilton and Zeckhauser (2004) follow this approach by using respectively the *Financial Times* and the *Wall Street Journal*. The alternative method that I follow is to choose a number of reliable sources of news.

As the search window, I choose Lexis-Nexis Executive, which is equivalent to Lexis-Nexis Professional Power Search, the most complete and powerful Lexis-Nexis search engine. As search options, I choose "Non-Restricted to Major Stories" and "All Major World Publications" in order to obtain complete news or stories on CEOs. I do not limit the search to "Major Stories" because it might reduce news that fits the search criteria. "Major World Publications" include all important newspapers, media outlets in developed and developing worlds, and scripts from audio and

television programs.[3]

I only use a CEO's last name, not her full name (first, middle, and last names), and her firm name in the search because the media rarely report a CEO's complete name. Instead, they usually report only a CEO's last name and first name, or sometimes, only a CEO's last name and nickname, or the familiar form of the first name. This reporting practice may be in conflict with Execucomp, which reports CEOs' complete names. Potential confusion about names might be a problem. My solution is to use only a CEO's last name, which all publications and Execucomp report, and add company name in the search window to be sure that only news associating a CEO with her company are extracted. I also manually verify the cases of very common last names (i.e., Smith, John) to avoid errors caused by similar names.

Results from such a Search Window provide me with the first index, Media Coverage of CEOs Index (MCI index), which is the total annual number of news items related to each CEO in the Major World Publications. The second index, Positive Media Coverage of CEOs (ChI index), is derived from the MCI index and measures the aggregate level of positive media coverage of CEOs. To obtain the ChI index, I insert filters in the form of keywords in the Search Window. The Search Window will select from the Major World Publications all news that describes CEOs with one of the following words: "charisma," "visionary," "flamboyant," "legendary," "stature," "personality," "rock-star," "missionary," "profile," or "inspiring." According to Rakesh Khurana (2002), these words are the most frequently used by the media to describe a charismatic and mediatized CEO. Though not perfect, the use of keywords allows us to overcome difficulties in measuring the positiveness of news stories.[4] The alternative method is to read carefully all news items and put them into classes, such as absolutely positive, positive, rather positive, neutral, rather negative, negative, or absolutely negative. This approach has been used by Hambrick et al. (1997) to measure CEO hubris in dozens of acquisitions. However, the number of CEOs and news items in my sample makes this approach impractical.

Lexis-Nexis enables the search for all words associated with a common root by use of an exclamation mark ("!"). For example, by inserting "charisma!" in the Search Window, Lexis-Nexis will search for all words related to charisma, such as "charisma," and "charismatic." Hence, to avoid missing news items, I add a "!" in each keyword: *"charisma!"* or *"vision!"* or *"flamboyan!"* or *"legend!"* or

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"stature!" or *"personalit!"* or *"rock-star!"* or *"mission!"* or *"profile!"* or *"inspir!."* The search results will be all news coverage on CEOs, including any of the keywords or their direct derivatives. The two indices are constructed on an annual basis for the period from January 1 to December 31 of every year. To avoid errors in the search process caused by similar CEO names or change of company names (e.g., from American Home Products to Wyeth; Philips Morris to Altria), I manually check the cases that have both indices equal to zero.

While the MCI index is not affected, there might be a concern about the counting of news relying on root words for the ChI index. For example, "charisma" and "lack of charisma" may both be counted, while the former indicates positive news, and the latter, negative coverage. Indeed, my search method cannot make a distinction between these two cases. However, after manual checks, I find that these cases are quite rare since media tend to use subsequently several words in the Search Term, reducing de facto this risk. Furthermore, as reported in Figure I, the strong and positive correlation between MCI and ChI indices (+96.15 percent) may indicate that more often when a CEO is in the news, the coverage is likely to be positive.

Panel C of Table 1 shows that, in the Major World Publications, an average CEO receives 57.1 news accounts per year. The maximum coverage has been attained by Bill Gates of Microsoft in 1998, with 3,681 news stories, or an average of 10 stories a day. The minimum coverage is zero stories per year. An average CEO has 13 positive news stories per year, with a maximum of 785 stories (Bill Gates, in 1999), and a minimum of zero.

2.3. Dependent and control variables

2.3.1. Dependent variable

Tobin's q is the ratio obtained by dividing the market value of assets by the replacement cost of assets. Morck, Shleifer, and Vishny (1988), Yermack (1996), among others, describe some methods to compute q. This paper follows their method, but in a less complex way:

Tobin's q = (Market Value of Stocks + Total Assets – Book Value of Equities) / (Total Assets)[5]

In the paper, Tobin's q is the dependent variable for the majority of tests. Panel A of Table 1 shows that year-end Tobin' q of an average company is 1.87, with a maximum of 19 (Dell Inc., in 1998) and a minimum of 0.6.

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[5] All the data are from Compustat (Total Assets: Data 6; Market Value of Stocks: (Data 199*Data 25)/1000; Book Value of Equities: Data 11).

2.3.2. Control variables

The relation between Tobin's q and the MCI and ChI indices may be spurious because of the possible impact of many factors on both Tobin's q and the indices. Previous research by Morck et al. (1988), Lang and Stulz (1994), Yermack (1996), and Gompers et al. (2003) examine determinants of Tobin's q. I take into account all of these factors in the empirical analysis.

Expenditures on research and development (Compustat Data 46) are the main sources of innovation that may determine future profits (Morck et al. (1988)), while capital expenditure (Compustat Data 128) represents possibilities of investments and future prospects (Yermack (1996)), I thus add R&D expenditures over sales and capital expenditure over sales as control variables. Firms with prior strong growth usually witness higher q. For this reason, I control for sales growth during the last one, three, and five years (SALECHG, SALE3LS, and SALE5LS in Execucomp). Prior returns have an obviously important impact on firm valuation. I take into account prior growth rate, which is proxied by lagged earnings per share (EPSEXCHG, EPSEX3LS, and EPSEX5LS in Execucomp).

Characteristics of a CEO may determine her capability. In all test models, I control for CEO tenure. Due to a lack of information on CEO age in Execucomp, I only control for CEO age in a robustness check. Apart from prior firm performance (ROA, sales growth, etc.), I also control for CEO ability by using as specific proxies those presented in Table 3.

Grullon, Kanatas, and Weston (2004) and Jain and Wu (2000) find that advertising expenditure affects liquidity and performance. There might be a correlation between expenses for advertising and the media coverage of firms and CEOs. I control for advertising expenditures (Compustat Data 45) normalized by total assets in a check of robustness because of the serious lack of advertising data in Compustat.

Daines (2001) finds that companies incorporated in Delaware have a substantially higher q. Gompers et al. (2003) find that governance quality impacts firm valuation. I thus include a Delaware-incorporated dummy and the GIM index as control variables.

Firms of different sizes and in different industries belong to different capital markets and have different capital structure and characteristics. I systematically control for firm size by log of total assets in constant dollar; for industry and year, by including two-digit SIC codes and year dummies.

3. Media coverage of CEOs and firm valuation

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This section explores empirically the relationship between the media coverage of CEOs and firm value. My main measure of firm value is Tobin's q. There are many controversial views on Tobin's q, but my purpose is merely to use Tobin's q as a proxy for firm value.

The previous section explains how MCI and ChI indices are constructed. The first index is an aggregate measure of CEO exposure to media. The second index, derived from the first, measures positive media coverage of CEOs. Though not perfect, these indices adequately capture the volume of media coverage of CEOs, quantify the flow of information on CEOs, and provide broad and observable measures of news on CEOs and of judgments of CEOs by the media.

3.1. Media coverage of CEOs and firm valuation: OLS regressions

I run OLS models relating Tobin's q to indices of media coverage of CEOs, with Tobin's q of firms, measured at the end of each year from 1992 to 2002 as the dependent variable. Main independent variables are the MCI and ChI indices. The OLS models are the following:

Tobin's $q = \alpha + \beta(\text{MCI}) + \gamma(\text{Control Variables}) + \varepsilon$
Tobin's $q = \alpha + \beta(\text{ChI}) + \gamma(\text{Control Variables}) + \varepsilon$

Control variables are factors that can potentially determine Tobin's q, such as CEO and firm characteristics, potential growth, prior performance, and law and governance. Following Morck et al. (1988), Lang and Stulz (1994), and Yermack (1996), I control for firm size, measured by log of sales in million of dollars. Daines (2001) finds that Delaware corporate law improves firm value and facilitates the sale of public firms. I thus include a Delaware-incorporated dummy in all tests. Gompers, Ishii, and Metrick (2003) construct an index representing firm governance from 24 charter provisions (the GIM index) and find that companies with weak shareholder rights (high GIM) are associated with lower q. I include the GIM index as another control variable for Tobin's q.

Similar to Myers (1977), Smith and Watts (1992), and Yermack (1996), I further include, as control variables for Tobin's q, the Capex ratio (capital expenditures over sales) as a proxy for future opportunities, the R&D ratio (R&D budget over sales), as well as sales and EPS change from the last one, three, and five years. Regressions also control for CEO characteristics (age, tenure), and ability (prior EPS and sales growth), as well as for firm characteristics, and industry and year dummies.

The results are reported in Table 2. Regressions (1) and (3) in Panel A show that coefficient estimates on the MCI and ChI indices are all positive and significant at the one percent level when no control variables are included. In regressions (2) and (4), I include all control variables mentioned

above. After controlling for numerous factors, coefficient estimates of the MCI and ChI indices remain positive and significant at the one percent level. Coefficient estimates of other variables are in majority significant in the expected and conventional direction. R&D ratio and prior performance (sales and EPS) appear, for example, to be important determinants of Tobin's q.

Simple OLS tests show positive and significant correlations between media coverage, positive media coverage of CEOs, and firm valuation after taking into account numerous potential determinants of firm value. The estimated coefficients of ChI are five times larger than those of MCI, indicating that the effect of positive media coverage of CEOs on firm valuation is stronger than that of media coverage of CEOs (even after taking into account the fact that the mean of MCI is four times larger than the mean of ChI).[6]

3.2. Panel data analysis

The results from OLS regressions are interesting but may differ across firms. It is also probable that unobservable firm characteristics are likely to affect firm value, as well as the potential relationship between media coverage of CEOs and firm value. Since the sample includes firms present in the sample in every year of the 1992–2002 year period, balanced panel data analysis can be used to take into account firm-fixed or random effects.

Using Tobin's q at the end of each calendar year from 1992 to 2002 as the dependent variable; the MCI and ChI indices as main independent variables, respectively; and the same control variables as in Panel A of Table 2, I estimate fixed and random firm effect coefficients. Results presented in Panel B of Table 2 show positive and significant fixed- and random-effect estimates at the one percent level for both the MCI and ChI indices. The estimated coefficients of the ChI index are also about five times larger than those of the MCI index in both fixed-effect and random-effect estimations, indicating a stronger relationship between positive media coverage of CEOs and firm value.

3.3. CEO ability

One might argue that CEO innate ability or competence should at least partially determine firm value. The problem is that CEO competence or ability is inherently hard to identify, let alone

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[6] I also perform a test for whether the difference in coefficient estimates of the MCI and ChI indices (regressions (2) and (4) in Panel A of Table II) is statistically significant. The t-value, computed by dividing the difference of the two coefficient estimates by the square root of the sum of the squares of the two coefficient estimates' standard errors, is 3.54, indicating that the difference in coefficient estimates is statistically significant at the 1 percent level.

quantify. It is even more challenging to separate CEO ability from firm specific factors. If we consider that CEO ability translates into firm performance, previous tests, by including prior firm performance as control variables, do partially take into account CEO ability.

In this section, I go a step further in controlling for CEO ability, which is measured by the capacities to consistently outperform peers in the same industry when prior performance is good and to reverse bad prior performance. This measure has been used in the literature on the performance of mutual funds managers.[7] Precisely, I use the excess of prior firm performance to the value-weighted average and the median performance of their four-digit SIC code industry respectively as benchmarks for CEO ability. Some CEOs in the sample may be in the office for only one, two, or three years. Firm prior performance is thus the product of former CEOs. To avoid this bias, I eliminate CEOs with less than three years of tenure.

Table 3 shows that, after taking into account CEO ability, I still find a positive and significant relationship between media coverage of CEOs and firm valuation at the one percent level. The results are consistent when either lagged excess stock returns over the mean (in models (1) and (2)) or over the median (in models (1) and (2) of Table 3) of the average stock returns of the 4-digit SIC code industry are used as proxies for CEO ability. As in previous tests, estimated coefficients of the MCI and ChI indices are positive and statistically significant. The tests also confirm that CEO ability does determine firm value: proxies for CEO ability are positively and significantly related to Tobin's q at the conventional levels.

Using the same regression framework as in Table 3 and controlling for firm fixed and random effects, I find qualitatively similar (not reported) results. The coefficients on media coverage indices are positive and significant, and are of comparable magnitude to coefficients presented in Table 3.

3.4. Media coverage and firm valuation: Endogeneity and 3-SLS regressions

Results from OLS and panel data analysis in previous sections show a strong and significant association between media coverage of CEOs and firm value. Unfortunately, they can not tell us about causality, or at least the direction of this relationship.

One can imagine a complicated, three-way relation between CEO ability, CEO media coverage, and firm value in which each factor simultaneously determines the other. Previous models do take into account CEO ability (as exogenous factors) but say nothing about possible simultaneous and subsequent relations between media coverage and firm valuation.

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[7] See, for example, Brown et al. (1995).

In this section, I address this problem by using a system of simultaneous equations and a three-stage estimation for systems of simultaneous equations (3-SLS) as follows:

$$(1)\ FirmValue = \alpha_1 + \beta_1(CEOMediaCoverage) + \gamma_1(CEOAbility)$$
$$+\ \delta_1(CEOcharacteristics) + \epsilon_1(FirmGrowthProspects) + \zeta_1(FirmPastPerformance)$$
$$+\eta(FirmGovernance) + \theta(FirmCharacteristics) + \vartheta$$
$$(2)\ CEOMediaCoverage = \alpha_2 + \lambda_2(FirmCurrentValue) + \gamma_2(CEOAbility)$$
$$+\ \delta_2(CEOcharacteristics) + \varepsilon_2(Current\ Performance) + \zeta_2(FirmPastPerformance)$$
$$+\theta_2(FirmCharacteristics) + \vartheta_2$$

The first equation is the structural equation used in previous sections from which I find that controlling for CEO ability, firm prior performance, growth prospects, and firm and CEO characteristics, media coverage of CEOs affects firm valuation. The second equation postulates the inverse hypothesis: it is firm current value that determines the current level of CEO media coverage, controlling for CEO ability and characteristics, firm current and prior performance, and firm-specific factors. This equation is based on the idea that media tend to bring more coverage to "success stories" of CEOs and of firms with good current and/or past performance. Other things being equal, if a CEO achieved a higher q during prior years, she and her firm will be more likely to be "in the news," resulting in more coverage and more positive coverage. It is reasonable to think that CEO ability, translated into superior performance over its industry peers; CEO and firm characteristics; and firm current and prior performance are main determinants of the level of CEO media coverage.

The system of estimation allows the two equations to be estimated simultaneously. Thus, regression results of each equation allow us to capture separate effects of media coverage on firm value and vice and versa. To avoid "survival bias" of CEOs, I only retain CEOs who hold office during at least 3 three years in the sample period. The main difference between the two equations is that the first includes some variables serving as the identification (or instrument variables). A good instrument is a variable strongly correlated with firm value while being non-correlated with media coverage of CEOs. Daines (2001) shows that firms incorporated in Delaware exhibit a higher Tobin's q than those of other firms, even though it is not evident that any strong correlation between the level of media coverage of CEOs and the place of incorporation should exist. Consequently, I include a Delaware-incorporated indicator as one of the instrument variables in the 3-SLS regression system. For the same reason, I include GIM index, R&D ratio, and Capex ratio as

other instruments.

Table 4 reports the results from 3-SLS regressions of the simultaneous equations. Taking into account possible endogenous and simultaneous relations between CEO media coverage and firm value, I still find that media coverage is a determinant of firm value. The estimated coefficient of the MCI index in equation is positive and significant at the 5 percent level. The coefficient on MCI index is similar to what we obtain in Table 3.

As an alternative, I use the population of the county in which a firm is headquartered as an instrument variable. The argument is that, since the media are more active in areas with large populations, the number of the population of the firm's headquarter county is positively correlated with the number of news items on a CEO, while the county population can hardly correlate with firm value. I find robust results that are not reported.

The results from this section are important in that they confirm the positive and significant association between media coverage of CEOs and firm value, and at the same time, show the direction and the extent of the relationship.

4. Checks of robustness

4.1. *Alternative control variables*

A subjective choice of control variables may generate errors. The use of alternative measures of control variables helps avoid those risks. Firm size has been measured by log of sales. Thus, I use respectively log of total assets, log of market value, and log of sales of the prior year. For growth opportunity, I use depreciation over sales as an alternative to R&D ratio and Capex ratio. As performance variables, I use simultaneously ROA, sale change, EPS, and dividend yield change. I re-run regressions using those alternative variables. The results are not reported as I do not find any significantly different results than those in previous sections.

4.2. *Use of lagged indices and relative indices*

In Table 2, I relate the MCI and ChI indices, measured annually, on Tobin's q, measured at the end of each year. It might be more interesting to study the relation between lagged MCI and ChI indices and current firm valuation because it may indicate the causality direction. Thus, I replicate tests in previous sections, but use one-year lagged MCI and ChI as main independent variables. I obtain similar results that are not reported.

Both indices used in previous tests are in absolute numbers. However, the use of a relative

index, to measure the percentage of positive media coverage over the overall level of media coverage of CEOs, might be more interesting. Thus, I construct a new variable by dividing the ChI index by the MCI index and call this Relative Media Index Coverage of CEOs, or R-MCI. With an average of 23.66 percent, a minimum of zero, and a maximum of 100 percent, the R-MCI indicates that, on average, 23.66 percent of news related to CEOs is positive reports, or good news. Using OLS and panel data regressions of Tobin's q on R-MCI index, and taking into account the same control variables for q as in previous tests, I find similar (not reported) results to previous tests.

The level of media coverage might be increasing as a function firm size. Although the use of R-MCI might at least control partially for firm size, I further replicate our test using the MCI and ChI indices that are scaled by firm size (market capitalization). I do find any qualitatively similar results.

4.3. Advertising expense as control variable

Grullon et al. (2004) find that product market advertising has a direct effect on firm breadth of ownership and on the liquidity of common stocks. Jain and Wu (2000) hypothesize that mutual funds that advertised in *Barron's* or *Money* magazines use advertisement as a signal of fund managers' skills. They find no superior performance in the post-advertisement period. However, advertised funds are found, on comparison, to attract significantly more money than does a control group of funds. Expenditures on advertising and public relations should have an impact on media coverage. Morck et al. (1988) include this factor as a control variable for Tobin's q. However, fewer than half of the firms in my sample provide data on advertising (Compustat Data Item 45). I thus do not use advertising expense as control variable and only replicate OLS and panel data tests in a sub-sample of firms with full data. I find similar (not reported) results.

4.4. Reverse causality and impacts of a "Success Factor"

The first question the paper addresses is how media coverage of CEOs during a given year affects firm valuation at the end of the year. I find that media coverage has a positive effect on firm valuation. However, potential interpretations and the direction of causality might be debatable. Do the visibility and the positive media coverage of CEOs increase firm value? Or, is this increase simply the result of market frenzies about some firms or industries, which, at the same time, cause a higher Tobin's q and a higher media coverage of CEOs? Is the significant relation between media coverage of CEOs and firm valuation the result of a "natural selection" process in which high

Tobin's q firms attract mediatized CEOs? Previous tests that systematically take past performance into account and the 3-SLS regressions that allow for the possibility of a reverse causality address at least some of these issues.

On the other hand, firms with high prior valuation may naturally help their CEOs get more and better exposure to media in the following periods. In these cases, prior high valuation of companies, a "success factor," may cause a current high level of CEO media coverage, independent of the CEO, rather than the inverse. Consequently, a "firm" effect and a "CEO" effect may be separate. If this is true, one should expect a positive and significant link between prior q and the current level of media coverage of a newly arrived CEO. To further check robustness of the results, I study the relationship between firm prior performance and the media coverage level of new CEOs. There are 266 CEO turnovers during the 1992–2002 year period. Based on this information, I compute and relate prior Tobin's q for firms that appoint new CEOs to the level of media coverage of the news CEOs following their appointment.

In regressions, the main dependent variables are the MCI and ChI indices of CEOs of the year following CEO appointment. Main independent variables are one-and five-year lagged Tobin's q prior to the year in which CEO turnovers occur. I also control for other benchmarks for firm performance that might impact media coverage.

The regression results reported in Table 5 appear not to support the hypothesis that there is a "success factor." I find no significant relation between lagged Tobin's q and the current level of media coverage of new CEOs. Consistently, estimated coefficients of one- and five-year lagged q are not statistically significant, indicating that prior Tobin's q is not a determinant of the current level of MCI and ChI indices of newly arrived CEOs. The "firm" effect, if there is one, is thus not significant.

5. Economic impact of media coverage of CEOs

5.1. Differences in media coverage and differences in firm value

Having established that media coverage of CEOs affects firm valuation, the paper analyzes whether the economic impact is relevant. To see how differences in media coverage are associated with differences in firm value, I divide firms in the sample in quintiles of the MCI and ChI indices and do a means test of the difference between the average q of each quintile. The results are presented in Table 6.

I find, as reported from the first to the fourth column, a monotonic relationship, in that firms

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with CEOs attracting higher degree of media coverage or positive coverage obtain a higher *q*. Average *q* evolves from 1.6 for firms in the lowest quintile of MCI index to 2.2 for firms in the highest quintile of MCI. The results are similar for ChI index. Results from means tests reported in the last column of Table 6 show that the difference in average Tobin's *q* between the lowest quintiles of the MCI and ChI is statistically significant at the 1 percent level. Since firms in the sample have an average capitalization of $20.7 billion, this is a substantial difference in economic terms.

5.2. Media coverage of CEOs and firm value: A portfolio analysis

Returns of portfolios based on the MCI and ChI indices may provide some insights into the economic impact of media coverage. Thus, I form portfolios based on the MCI and ChI indices of the prior year and compute their returns in the current year. Fama and French (1992, 1993) identify three factors that explain realized portfolio returns: exposure to market factor, market capitalization (size), and book-to-market ratio. Carhart (1997) finds that another factor, immediate prior returns (or momentum), also explains portfolio returns. The four-factor model is the following:

$$R_t = \alpha + \beta_1 * RMRF_t + \beta_2 * SMB_t + \beta_3 * HML_t + \beta_4 * Momentum + \varepsilon_t$$

Rt is the return of a portfolio in month *t*. RMRFt is the month *t* value-weighted market return minus risk-free rate. SMB (small minus big), HLM (high minus low), constructed by Fama and French, are the month *t* returns on zero-investment factor-mimicking portfolios that captured size and book-to-market. Momentum factor is defined in Carhart (1997). Data on monthly factors are available on Kenneth French's website.

The alpha in this model is the excess return over passive investment strategies that take into account the four factors. In the paper's context, the alpha embodies the difference due to the choice of portfolio based on the degree of media coverage and positive media coverage of CEOs. For a year (N), I use the MCI and ChI indices of the year (N-1) to divide firms in the sample into quintiles. Using stock return data from CRSP, I compute monthly returns of five portfolios of firms in five quintiles of the indices. Since the sample starts in January 1992 and ends in December 2002, I obtain the first portfolio returns in January 1993, and 120 monthly portfolio returns, from January 1993 to December 2002.

Table 7 shows regression results of monthly portfolio returns on Fama and French, and Carhart four factors, and most importantly, the alpha coefficient of each portfolio. Panel A reports

the alphas of portfolios formed on quintiles of the MCI index. The first row shows results of a regression where the dependent variable is the difference in monthly returns between the portfolio of firms in the highest quintile and the portfolio of firms in the lowest quintile of MCI index. The alpha from this estimation, which is 0.66 percent per month or about 8 percent per year, is simply the difference in abnormal return between the two portfolios.

Panel B shows the same regressions based on the ChI index. Similarly, I find an alpha of 0.58 percent a month (about 7 percent a year), statistically significant at the 1 percent level, suggesting that the difference in abnormal return between the portfolio of firms in the highest quintile and the portfolio of firms in the lowest quintile of ChI index is about 7 percent a year. The coefficient estimates of alphas for other quintile portfolios, for both indices, are not always monotonic but usually significant. Since firms in the sample are large, with an average market capitalization of $20.7 billion, these abnormal returns are economically significant.[8]

Our results appear to be opposite to Fang and Peress (2009) who find that stocks with no (or low) media coverage earn higher returns than stocks with high media coverage. However, our paper is different because of our focus on media coverage of CEOs, not on media coverage of firms. Moreover, we study the media coverage of CEOs of large and well-known firms, not firms with no media coverage.

6. Media coverage and CEO rent extraction

Are media coverage and positive media coverage of CEOs, which are good for firm value as the paper shows so far, also good for the CEOs? Literature sheds little light on what motivates CEOs to appear in the media. A CEO may be interested in the celebrity appeal of being "in the news," or positive coverage might give her the legitimacy to justify a larger pay package or private, fringe benefits. Media coverage might provide CEOs with reputation to obtain a better job in the future. This idea is closely related to Bebchuk and Fried's (2003) hypothesis on CEO rent extraction. This section investigates the impact of media coverage on CEO ability to extract rents by focusing on CEO pay, and whether the increase in CEO pay is above and beyond what they obtain from the increase in firm value that results from media coverage.

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[8] All the portfolio returns are value-weighted. Since I am interested in the impact of aggregate news on firm value, I use annual media indices to form portfolio. An alternative is to use monthly media indices. Also, because of the paper's focus on aggregate and long term effects of media coverage, I do not study the under- or overreaction of stock price following specific news as in other papers. Malmendier and Tate (2009) and Tetlock (2007) for example find that investors overreact to news.

6.1. Media coverage and subsequent CEO pay

I study how much prior media coverage of CEOs determines subsequent CEO remuneration. Panel A of Table 8 reports univariate results. I break the sample in quintiles of one year-lagged MCI and ChI indices, from (1), firms whose CEOs are in the lowest quintile, to (5), firms whose CEOs are in the highest quintile, and compute the quintile's average of CEO compensation. For each year (N), MCI and ChI are measured in the year (N-1) and compensation in the year (N).

Results indicate that a low level of MCI and ChI indices in a year is associated with a low level of incentive, cash, and total compensation in the following year. An average CEO in the lowest quintile of lagged MCI index earns an incentive compensation of about $3 million, a cash compensation of $1.5 million, and a total pay of $4.5 million per year. By comparison, an average CEO in the highest quintile of lagged MCI index earns $12 million, $3.3 million, and $15.3 million respectively. For CEO total pay, this mean difference is equivalent to a difference of $10.8 million per year. Results are similar for the ChI index. The last column of Panel A report results of means tests to compare CEO pay structure in two extreme quintiles of the one-year lagged MCI and ChI indices. For the three components of CEO pay (incentive, cash, and total pay), the means difference is consistently and statistically significant at the 1 percent level.

In Panel B of Table 8, I run OLS regressions relating media coverage of CEOs to subsequent CEO pay. Following Malmendier and Tate (2009), I control for firm size (log of sales), sales growth, CEO tenure, and dummies for years and industries. The main independent variables are one-year-lagged MCI and ChI indices. Since one of the main results of this paper is that media coverage affects firm value, all regressions include prior Tobin's *q* as an independent variable to capture the direct effect of increase in firm value on CEO compensation.

In regressions (1) and (2), with CEO incentive compensation as the dependent variable, I find that the lagged MCI and ChI indices are positively and significantly related to one-year-lagged Tobin's *q*, indicating that past performance is a significant determinant of subsequent CEO incentive pay. Controlling for this effect, media coverage is still positively and significantly related to CEO incentive compensation at the ten percent and five percent levels, respectively. Regressions (3) and (4) report that subsequent CEO total cash compensation is positively and significantly correlated to media coverage of CEOs, but in a smaller magnitude in comparison to incentive compensation. This is not a surprising result, since cash compensation tends to be a fixed component. Models (5) and (6) show that lagged MCI and ChI indices are positively and significantly correlated to CEO total pay at the 1 percent level with large estimated coefficients, after

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controlling for prior Tobin's *q*.

Results from Panel B of Table 8 show that media coverage of CEOs is a determinant of every component of subsequent CEO compensation, after controlling for the direct effect of past performance (Tobin's q) on current pay. From model (5) we learn that a piece of news in a major media outlet is associated with an increase of total CEO pay worth almost $5,190. Since the average CEO in the sample appears 57 times per year in the World Major Publications, media coverage is associated annually with an average CEO pay rise of $295,830, which amounts to 4.1 percent of the average CEO total pay of $7.23 million. Model (6) of Panel B shows that the effect of positive media coverage on CEO pay is even stronger, in that one piece of positive news increases CEO pay by $28,670, and, in total, by $372,710 for an average CEO (5.16 percent of total pay). Since all regressions already take into account the increase in CEO pay due to increase in firm value, the recorded increase in CEO pay is above and beyond the pay rise that results from firm value increases attributable to media coverage.

6.2. Change in media coverage and CEO pay

To better see how a change in the level of media coverage impacts subsequent pay, I relate year-end pay components to the change in media coverage between a current year and the year before. I include the same control variables as in Panel B of Table 8. Regression results are presented in Table 9.

Models (1) and (2), which include CEO incentive compensation as the dependent variable, show that change in the levels of media coverage and positive media coverage are positively and significantly related to CEO incentive pay at the one percent level. Estimated coefficients are large, suggesting that a small change in media coverage is associated with a large rise in CEO incentive pay.

Models (3) and (4) replicate regressions (1) and (2) with CEO total cash compensation as the dependent variable. The sign of the estimated coefficients of the MCI and ChI indices, contrary to results from (1) and (2), is negative and significant at the 1 percent level, indicating that change in CEO media coverage is negatively and significantly related to CEO cash compensation. However, the impact is small as estimated coefficients are much smaller that those in regressions (1) and (2). With total compensation as the dependent variable, models (5) and (6) show change in media coverage is positively and significantly correlated with CEO total pay at the 1 percent level. Large and positive coefficients suggest that small change in media coverage leads to big rise in total pay.

Overall, results from Table 9 confirm that media coverage helps CEOs to obtain a significant

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pay rise, beyond the beneficial effects of media coverage on firm value.

7. Conclusion

This paper studies the impact of media coverage of CEOs on firm value and on CEO compensation. Using two indices of media coverage of Fortune 500 CEOs from 1992 to 2002, I find a number of results. First, media coverage and positive media coverage of CEOs positively and significantly impact firm value. The result is robust to alternative econometric specifications and numerous checks of causality. Second, the economic impact of media coverage of CEOs is significant. The difference in abnormal return between portfolios of firms whose CEOs obtain the highest level of media coverage or positive coverage and those with the lowest level is almost 8 and 7 percent per year, respectively, in terms of abnormal stock returns. Third, media coverage of CEOs affects CEO ability to extract rents in the form of compensation. Media coverage is highly related to equity-based, incentive compensation, and less positively or even negatively sensitive to cash compensation. For an average CEO in the sample, media coverage can increase her pay by $295,830, or 4.1 percent of   the average CEO total pay of $7.23 million in the following year, beyond the pay increase induced by the increase in firm value.

Empirical evidence from the paper sheds light on the rationale of firms and CEOs in the process of building up personality and communication skills, and on the impact of investor recognition on firm value, an important prediction of Merton's model. The paper contributes to a growing literature related to investors' behavior such as home bias (Coval and Moskowitz, 1999), familiarity (Huberman, 2001), cognitive limits of investors (Barber and Odean, 2008), and the media's role in the economy and in governance (Dyck and Zingales, 2002, 2003), Mullainathan and Shleifer (2005).

References

Ahern, Kenneth, and Denis Sosyura, 2014. Who writes the news? Corporate press releases during merger negotiations. *Journal of Finance* 69(1), 241-291.

Antweiler, Werner, and Murray Z. Frank, 2004. Is all that talk just noise? The information content of internet stock message boards. *Journal of Finance* 59(3), 1259-1294.

Barber, Brad M., and Terrence Odean, 2008. All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies* 21(2), 785-818.

Bebchuk, Lucian, and Jesse Fried, 2003. Executive compensation as an agency problem. *Journal of Economic Perspective* 17(3), 71-92.

Brown, Stephen, and William Goetzman, 1995. Performance persistence. *Journal of Finance* 50, 679-698.

Carhart, Mark, 1997. On the persistence in mutual fund performance. *Journal of Finance* LII, 57-82.

Chan, Wesley, 2003. Stock price reaction to news and no-news: Drift and reversal after headlines. *Journal of Financial Economics* 70, 223-260.

Core, J. E., W. Guay, and D. F. Larcker, 2008. The power of the pen and executive compensation. *Journal of Financial Economics* 88(1), 1-25.

Coval Joshua D., and Tobias J. Moskowitz, 1999. Home bias at home: Local equity preference in domestic portfolios. *Journal of Finance* 54, 2045-2073.

Cutler, David, James Poterba, and Lawrence Summers, 1989. What moves stock prices? *Journal of Portfolio Management* 15, 4-12.

Da, Zhi, Paul Gao, and Joseph Engelberg, 2011. In Search of Attention. *Journal of Finance* 66(5), 1466-1491.

Daines, Robert, 2001. Does Delaware law improve firm value? *Journal of Financial Economics* 62, 525-558.

Dyck, Alexander, and Luigi Zingales, 2002. The corporate governance role of the media. *NBER working paper*.

Dyck, Alexander, and Luigi Zingales, 2003. The media and assets prices. Working paper.

Dyck, Alexander, Natalya Volchkova, and Luigi Zingales, 2008. Corporate governance role of the media: Evidence from Russia. *Journal of Finance* 63 (3), 1093-1135.

Fama, Eugene, and Kenneth French, 1992. The cross-section of expected stock returns. *Journal of Finance* 47, 427-465.

Fama, Eugene, and Kenneth French, 1993. Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics* 33, 3-56.

Peress, Joel, and Lily Fang, 2009. Media Coverage and the Cross-Section of Stock Returns. *Journal of Finance* 64(5), 2023-2052.

French, Kenneth, and James Poterba, 1991. Investor diversification and international equity markets. *American Economic Review* 81, 222-226.

Fisman, Ray, Rakesh Khurana, Matthew Rhodes-Kropf, and Soojin Yim. Governance and CEO turnover: Do something or do the right thing? *Management Science*, forthcoming.

Gompers, Paul, Joy Ishii, and Andrew Metrick, 2003. Corporate governance and equity prices. *Quarterly Journal of Economics* February, 107-155.

Grullon, Gustavo, George Kanatas, and James Weston, 2004. Advertising, breadth of ownership, and liquidity. *Review of Financial Studies* 17, 439-461.

Hambrick, Donald C., and Mathew L.A. Hayward, 1997. Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly* 103-127.

Hamilton, James T., and Richard Zeckhauser, 2004. Media Coverage of CEOs: Who? What? Where? When? Why? *Working paper.*

Huberman, Gur, and Tomer Regev, 2001. Contagious speculation and a cure for cancer: A nonevent that made stock prices soar. *Journal of Finance* 56, 387-396.

Huberman, Gur, 2001. Familiarity breeds investment. *Review of Financial Studies* 14, 659-680.

Jain, Prem, and Joanna Shuang Wu, 2000. Truth in mutual fund advertising: Evidence on future performance and fund flows. *Journal of Finance* LV, 937-958.

Jensen, Michael, 1976. Toward a theory of the press. *Working paper.*

Khurana, Rakesh, 2002. *Searching for the Corporate Savior: The Irrational Quest for Charismatic CEOs.* Princeton University Press.

Kuhnen, Camelia, and Alexandra Niessen, 2012. Public opinion and executive compensation. *Management Science*, 58 (7): 1249-1272.

Lang, Larry, and René Stulz, 1994. Tobin's *q*, corporate diversification, and firm performance. *Journal of Political Economy* CII, 1248-1280.

Liu, Laura, Ann Sherman, and Yong Zhang, 2013. The role of the media in initial public offering. *Management Science*, forthcoming.

Malmendier, Ulrike, and G. A. Tate, 2009. Superstar CEOs. *Quarterly Journal of Ecomonics*, 124(4), 1593-1638.

Merton, Robert C., 1987. A simple model of capital market equilibrium with incomplete information. *Journal of Finance* 42 No. 3, 483-510.

Meschke, Felix, 2004. CEO interviews on CNBC. *Working paper.*

Mitchell, Mark, and Harold Mulherin, 1994. The impact of public information on the stock market. *Journal of Finance* XLIX, 923-950.

Morck, Randall, Andrei Shleifer, and Robert Vishny, 1988. Management ownership and firm valuation. *Journal of Financial Economics* 20, 293-316.

Mullainathan, Sendhil, and Andrei Shleifer, 2005. The market for news. *American Economic Review*, September 2005.

Myers, Stewart, 1977. Determinants of corporate borrowing. *Journal of Financial Economics* 5, 147-175.

Niederhoffer, Victor, 1971. The analysis of world events and stock prices. *Journal of Business* 44, 193-219.

Russell Reynolds Associates, 2003. *Formula for Confidence: Resetting Investment Criteria.*

Smith, Clifford, and Ross Watts, 1992. The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics* 32, 263-292.

Solomon, David, 2012. Selective Publicity and Stock Prices. *Journal of Finance* 67 (2), 599-637.

Tetlock, Paul C., 2007. Giving content to investor sentiment: The role of media in the stock Market. *Journal of Finance* 62, 1139-1168.

Veldkamp Laura, 2006. Media frenzies in markets for financial information. *American Economic Review* 96 (3), 577-601.

Yermack, David, 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics* 40, 185-211.

Figure I
Correlation between the MCI and ChI Indexes and Tobin's *q*

This figure reports correlations between Tobin's q, CEO Media Coverage Index and Positive Media Coverage Index.

	MCI Index	ChI Index	Tobin's q
MCI index	1.0000		
ChI Index	0.9615	1.0000	
Tobin's *q*	0.2976	0.2954	1.0000

Table 1
Descriptive Statistics of Firms, CEOs, and Media Coverage of CEOs

This table shows descriptive statistics of firms, CEOs, and media coverage of CEOs. The sample includes firms in Fortune 500 lists between 1992 and 2002. I first use the sample of 2,651 firm-years present for 11 consecutive years and later extend the sample to firms present in at least 6 out of 11 years of the sample period. Share prices have been extracted from CRSP. Detailed information of CEOs (first, middle, last names) and data related to executive compensation and financial ratios have been provided by Execucomp. The corporate governance GIM index (Gompers-Ishii-Metrick) have been extracted from the IRRC database, accounting data from Compustat, Fama-French factors (HML, SMB, RMRF), and momentum factors from Kenneth French's web page. I merge data from all these sources into a single database and compute Tobin's q for each firm.

Panel A: Firm Characteristics

Variables	Obs.	Mean	Std. Dev.	Min	Max	Median
Sales (in million USD)	2651	14402.98	19991.56	1441.778	206083	8383
Common equity (in million USD)	2651	5648.302	8387.628	-2700.044	103198	3199.4
Assets (in million USD)	2651	34913.85	84916.27	496.075	1097190	11051.9
Market value (in million USD)	2651	20742.94	40187.72	31.335	507216.7	8079.21
Advertising expenditure (in million USD)	842	618.7436	780.4046	1	4600	296.14
Sales change 5 years (percent)	2474	8.78381	10.22053	-25.604	64.773	6.9
EPS change 5 years (percent)	1794	10.39487	18.43958	-69.763	195.804	9.6
ROA change 5 years (percent)	2473	5.014436	5.415741	-46.892	45.138	15.18
Dividend yield (percent)	2462	2.245254	2.248277	0	56.163	1.99
Tobin's q	2473	1.871336	1.285207	0.5797153	19.16261	1.43

Panel B: CEO characteristics

Variables	Obs.	Mean	Std. Dev.	Min	Max	Median
CEO cash compensation (in thousand USD)	2651	2602.64	1938.295	0	43511.54	1620
Total CEO compensation (Excluding exercised options)	2651	7231.022	19257.22	0.001	575595.9	4137.48
Total CEO compensation (Including exercised options)	2651	7594.616	17579.19	0.001	600347.4	2956.53
Age	749	58.26	5.94	43	75	59
Tenure	2326	6.9	6.56	0	45	5

Panel C: Media Coverage of CEOs

Variables	Obs.	Mean	Std. Dev.	Min	Max	Median
Media coverage of CEOs (MCI Index, in abs. value)	2651	57.1047	163.5997	0	3861	18
Positive media coverage (ChI Index, in abs. value)	2651	13.18446	40.71042	0	785	4

Table 2

Media Coverage, Positive Media Coverage of CEOs and Firm Valuation

This table reports the relationship between media coverage and positive media coverage of CEOs and firm valuation. Panel A shows OLS regression models relating Tobin's q measured at the end of each year to two annual proxies for media coverage of CEOs (MCI and ChI indices). See the text for the construction and definition of MCI and ChI. Panel B reports results of panel analysis of the relationship between media coverage of CEOs and firm valuation. Control variables are firm size (log of sales); Delaware-incorporated dummy; GIM index; R&D ratio; Capex ratio; change of sales; change of EPS for the last one, two, five years; and CEO tenure. The dependent variable is Tobin's *q*. Main independent variables are indices of Media Coverage and Positive Media Coverage of CEOs. The sample consists of 2,651 firm-year observations of 241 firms present in the Fortune 500 list during all 11 years of the period 1992–2002. I later extend the sample to firms present in at least 6 out of 11 years of the sample period. Estimated coefficients are marked with three, two, or one star if significant at the 1, 5, or 10 percent levels, respectively, with standard errors in brackets.

Panel A: OLS Tests

Variables	(1)	(2)	(3)	(4)
Media coverage of CEOs	0.0024***	0.0014***		
(MCI Index, in abs. value)	(0.00015)	(0.0003)		
Positive media coverage of CEOs			0.0094***	0.0065***
(ChI Index, in abs. value)			(0.0006)	(0.0014)
Log of Sales		-0.08		-0.081
		(0.117)		(0.116)
Delaware-incorporated dummy		0.11		0.14
		(0.16)		(0.163)
GIM index		0.06		0.0581*
		(0.04)		(0.036)
R&D ratio		17.95***		17.9***
(percent)		(2.77)		(2.755)
CAPEX ratio		-5.15**		-5.51**
(per cent)		(2.3)		(2. 3)
Sales change last year		0.011*		0.01*
(percent)		(0.0062)		(0.0062)
Sales change last 3 years		-0.01		-0.0081
(percent)		(0.019)		(0.019)
Sales change last 5 years		0.033		0.03
(percent)		(0.021)		(0.021)
EPS change last year		0.00002		0.00002
(percent)		(0.00003)		(0.00003)
EPS change last 3 years		0.002		0.00175
(percent)		(0.0018)		(0.0018)
EPS change last 5-years		0.011**		0.01**
(per cent)		(0.0043)		(0.0042)
CEO tenure		0.007		0.004
(years)		(0.012)		(0.012)
Constant	1.743***	-1.23	1.75***	-1.21
	(0.0264)	(1.83)	(0.026)	(1.82)
Industry dummies	No	Yes	No	Yes
Year dummies	No	Yes	No	Yes
Sample size	2651	2651	2651	2651
Adjusted R-squared	0.0885	0.5183	0.0873	0.585
F-statistics	237.23	9.18	233.47	9.31

Panel B: Panel Data Analysis

Variables	Fixed effect (1)	Fixed effect (2)	Random effect (3)	Random effect (4)
Media coverage of CEOs	0.00175***		0.0015***	
(MCI Index, in abs. value)	(0.0004)		(0.00033)	
Positive media coverage of CEOs		0.0094***		0.00711***
(ChI Index, in abs. value)		(0.00181)		(0.0015)
Log of Sales	0.69***	0.68***	-0.048	-0.049
	(0.227)	(0.23)	(0.12)	(0.12)
GIM index	-0.103	-0.13	-0.022	-0.02
	(0.11)	(0.11)	(0.039)	(0.039)
R&D ratio	10.07	11.55	17.14***	16.92***
(per cent)	(8.38)	(8.28)	(2.74)	(2.75)
CAPEX ratio	-4.03	-5.21	-4.32*	-4.56*
(per cent)	(4.3)	(4.27)	(2.42)	(2.42)
Sales change last year	0.0075	0.0064	0.0076	0.007
(per cent)	(0.0066)	(0.0065)	(0.006)	(0.006)
Sales change last 3-years	-0.00074	0.0019	-0.006	-0.005
(per cent)	(0.019)	(0.019)	(0.018)	(0.018)
Sales change last 5-years	-0.0056	-0.0076	0.025	0.022
(per cent)	(0.024)	(0.0245)	(0.02)	(0.02)
EPS change last year	0.00004	0.00003	0.000022	0.00002
(per cent)	(0.00003)	(0.000028)	(0.000028)	(0.000028)
EPS change last 3-years	0.0027	0.0029*	0.002	0.0022
(per cent)	(0.0018)	(0.0018)	(0.0018)	(0.0018)
EPS change last 5-years	0.01**	0.0098**	0.011***	0.01***
(per cent)	(0.0044)	(0.004)	(0.004)	(0.004)
CEO tenure	-0.001	-0.0126	-0.008	-0.01
(years)	(0.015)	(0.015)	(0.0124)	(0.012)
Constant	-3.64	-3.19	2.23 *	2.24*
	(2.383)	(2.36)	(1.27)	(1.27)
Sample size	2651	2651	2651	2651
F-statistics	4.0	3.06	112.19	114.41

Table 3
CEO Ability, Media Coverage, and Firm Valuation

Taking into account CEO ability, this table shows results of OLS regressions relating media coverage of CEOs to firm value. Control variables are firm size (log of sales), Delaware-incorporated dummy, GIM index, R&D ratio, Capex ratio, change of sales, change of EPS for the last one and three years, CEO tenure, and dummies for 2-digit SIC code industries (coefficients not reported in the table). The dependent variable is Tobin's q. Proxies for CEO ability are one-year-lagged excess stock returns of firms over the value-weighted return (in (1) and (2)), and over the median return (in (3) and (4)) of the four-digit SIC code industry. I respectively test this relation for indices of Media Coverage and Positive Media Coverage of CEOs. Some CEOs in the sample may hold office for only one, two, or three years. Firm prior performance is thus attributed to former CEOs. To avoid this error, I eliminate CEOs with fewer than three years of tenure. The sample consists of 2,651 firm-year observations of firms present in the Fortune 500 list during all 11 years of the period 1992–2002. Estimated coefficients are marked with three, two, or one stars if significant at the 1, 5, and 10 percent levels respectively, with standard errors in parentheses.

Variables	(1)	(2)	(3)	(4)
Media coverage of CEOs (MCI index)	0.0016***		0.0015***	
	(0.00036)		(0.0003)	
Positive media index of CEOs (ChI index)		0.0072***		0.007***
		(0.0016)		(0.0013)
Log of sales	0.13	0.124	0.07	0.07
	(0.13)	(0.132)	(0.097)	(0.097)
Delaware-incorporated dummy	0.26	0.288	0.118	0.144
	(0.2)	(0.203)	(0..148)	(0.15)
GIM index	0.048	0.05	0.05*	0.052*
	(0.042)	(0.041)	(0.031)	(0.03)
R&D ratio	18.65***	18.80***	14.11***	14.17***
	(3.18)	(3.15)	(2.42)	(2.4)
Capex ratio	-3.9	-4.29*	-4.28**	-4.5**
	(2.53)	(2.5)	(1.98)	(1.97)
Sales change last year	0.004	0.0036	0.0006	0.0004
	(0.0067)	(0.0067)	(0.005)	(0.005)
Sales change last 3-years	0.012	0.0114	0.01	0.0096
	(0.0114)	(0.0114)	(0.009)	(0.009)
EPS change last year	0.000027	0.000025	0.00002	0.00002
	(0.00003)	(0.00003)	(0.00003)	(0.00003)
EPS change last 3-years	0.0054*	0.0054*	0.0022	0.002
	(0.003)	(0.003)	(0.0015)	(0.0015)
One-year lagged excess return over the return of the 4-digit SIC code industry (over the median return of the 4-digit SIC code industry in (3) and (4))	*1.01***	*0.93***	*1.23****	*1.19****
	(0.43)	*(0.43)*	*(0.24)*	*(0.24)*
Two-year lagged excess return over the return of the 4-digit SIC code industry (over the median return of the 4-digit SIC code industry in (3) and (4))	*-0.102*	*-0.091*	*0.8****	*0.78****
	(0.431)	*(0.43)*	*(0.2)*	*(0.21)*
Three-year lagged excess return over the return of the 4-digit SIC code industry (over the median return of the 4-digit SIC code industry in (3) and (4))	*0.786**	*0.74*	*1.08****	*1.06****
	(0.464)	*(0.46)*	*(0.25)*	*(0.25)*
CEO tenure	0.011	0.008	0.007	0.0043
	(0.015)	(0.015)	(0.01)	(0.01)
Constant	-0.76	-0.83	-0.95	-0.96
	(2.1)	(2.08)	(1.65)	(1.64)
Dummy for CEO tenure longer than 3 years	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Sample size	2651	2651	2651	2651
R-squared	0.56	0.56	0.59	0.59
F-statistics	6.63	6.71	11.21	11.32

Table 4
Media Coverage of CEOs and Firm Valuation: 3-SLS Regressions

This table reports results of 3-SLS regressions of the following system. The first equation is the structural one relating media coverage of CEOs to firm valuation, controlling for CEO ability and characteristics, firm prior performance, growth prospects, and firm characteristics. The second equation relates Tobin's q to the current level of CEO media coverage, controlling for CEO ability and characteristics, firm current and prior performance, and firm characteristics. Proxies for CEO ability are firm excess return to the return of the four-digit SIC code industry. I allow both equations to be simultaneously estimated and use three stages least square regressions (3-SLS regressions) to separate the effect of media coverage on firm valuation from the effect of firm valuation on media coverage of CEOs.

$$(1)\ FirmValue = \alpha_1 + \beta_1(CEOMediaCoverage) + \gamma_1(CEOAbility) + \delta_1(CEOcharacteristics) + \epsilon_1(FirmGrowthProspects) + \zeta_1(FirmPastPerformance) + \eta(FirmGovernance) + \theta(FirmCharacteristics) + \vartheta$$

$$(2)\ CEOMediaCoverage = \alpha_2 + \lambda_2(FirmCurrentValue) + \gamma_2(CEOAbility) + \delta_2(CEOcharacteristics) + \epsilon_2(Current Performance) + \zeta_2(FirmPastPerformance) + \theta_2(FirmCharacteristics) + \vartheta_2$$

The sample consists of 2,651 firm-year observations of firms present in the Fortune 500 list during all 11 years of the period 1992–2002. Estimated coefficient are marked with three, two, or one star if significant at the 1, 5, and 10 percent levels, respectively, with standard errors in parentheses.

Equation (1): Dependent Variable is Tobin's q

Variables	
Media Coverage of CEOs (MCI index)	0.012**
	(0.006)
Log of sales	-0.38
	(0.35)
Delaware-incorporated dummy	0.24
	(0.5)
GIM index	-0.055
	(0.101)
R&D ratio	-9.20
	(15.39)
CAPEX ratio	-1.66
	(3.99)
Sales change last year	0.012
	(0.012)
Sales change last 3-years	-0.018
	(0.024)
EPS change last year	3.59e-06
	(0.00005)
EPS change last 3-years	0.005
	(0.005)
One-year lagged excess return over the return of the 4-digit SIC code industry	0.014
	(0.94)
One-year lagged excess return over the return of the 4-digit SIC code industry	-0.513
	(1.02)
Current excess return over the return of the 4-digit SIC code industry	1.96**
	(0.98)
CEO tenure	-0.058
	(0.051)
Constant	4.87
	(4.12)
Industry dummies	Yes
Sample size	2651

Equation (2): Dependent Variable is Media Coverage of CEOs

Variables	
Tobin's q	122.87**
	(24.38)
Log of sales	23.62
	(22.74)
Sales changes last year	-1.13
	(1.23)
Sales changes last three years	1.14
	(2.13)
EPS change last year	-0.0012
	(0.0056)
EPS change last three years	-0.53
	(0.55)
One-year lagged excess return over the return of the 4-digit SIC code industry	-46.14
	(86.30)
Two-year lagged excess return over the return of the 4-digit SIC code industry	-193.3 **
	(88.13)
Three-year lagged excess return over the return of the 4-digit SIC code industry	-70.78
	(113.8)
CEO tenure	3.53
	(2.8)
Constant	-388.62
	(316.01)
Industry dummies	Yes
Sample size	2651

Table 5
Prior Firm Valuation, CEO Turnover, and CEO Current Media Coverage

I test whether prior firm valuation determines the current level of media coverage and positive media coverage of newly arrived CEOs. The dependent variables are current aggregate levels of CEO media coverage (MCI index) and positive media coverage (ChI index) of newly arrived CEOs in their first year. Main independent variables are one- and five-year lagged Tobin's q. Control variables are firm size (log of sales); R&D ratio, Capex ratio; change of sales for the last one, two, and five years; change of EPS for the last one, three, and five years; and 2-digit SIC code industry dummies (coefficients not reported in the table). I respectively test this relation for indices of Media Coverage and Positive Media Coverage of CEOs. The original sample consists of 2,651 firm-years, from which I find 266 CEO turnovers during the period 1992–2002. Estimated coefficients are marked with three, two, or one stars if significant at the 1, 5, and 10 percent levels, respectively, with standard errors value in parentheses.

Variables	MCI index	MCI index	ChI index	ChI index
Five-year lagged q	1.79		2.01	
	(54.23)		(13.5)	
One-year lagged q		-73.29		-14.79
		(106.66)		(26.6)
Log of sales	101.6***	98.69 ***	22.58***	22.04***
	(21.72)	(22.0)	(5.4)	(5.48)
R&D ratio	1048.88**	984.57*	253.43**	239.13*
	(492.96)	(497.45)	(122.6)	(123.91)
Capex ratio	191.3	229.79	2.26	10.04
	(658.1)	(657.8)	(163.7)	(163.8)
Sales change last year	-0.89	-0.65	-0.25	-0.195
	(1.65)	(1.66)	(0.41)	(0.41)
Sales change last three years	-3.17	-4.3	-1.09	-1.36
	(5.2)	(5.3)	(1.3)	(1.3)
Sales change last five years	5.26	6.16	1.98	2.19
	(6.017)	(6.07)	(1.5)	(1.5)
EPS change last year	0.19	0.167	0.03	0.026
	(0.35)	(0.35)	(0.09)	(0.09)
EPS change last three years	-0.16	-0.18	-0.029	-0.035
	(0.35)	(0.34)	(0.087)	(0.086)
EPS change last five years	2.8	3.16 *	0.67	0.76 *
	(1.9)	(1.8)	(0.48)	(0.45)
Constant	-962.02 *	-930.87 ***	-214.5 ***	-208.65 ***
	(248.61)	(251.4)	(61.8)	(62.62)
Industry dummies	Yes	Yes	Yes	Yes
Sample size	2651	2651	2651	2651
R-squared	0.62	0.59	0.62	0.59
F-statistics	2.94	2.57	2.98	2.59

Table 6
Difference in Media Coverage of CEOs and Difference in Firm Value

I break the sample in quintiles from (1), firms whose CEOs are in the lowest quintile, to (5), firms whose CEOs are in the highest quintile of Media Coverage Index (Positive Media Coverage index respectively) and report accordingly in each cell the average q of firms in the quintile. In the last column, I report results of means tests to compare the average Tobin's q of firms in two extreme quintiles of the MCI and ChI indices. The figure in parentheses in the last column is t-value, starred with three, two, or one stars if significant at the 1, 5, and 10 percent levels, respectively. The sample consists of 2,651 firm-year observations for 241 firms present in the Fortune 500 list during all 11 years of the period 1992–2002. I later extend the sample to firms present at least 6 out of 11 years of the sample period.

	1st quintile	2nd quintile	3rd quintile	4th quintile	5th quintile	Means test (1) = (5)
Media Coverage of CEOs (MCI index)	$q = 1.611204$	1.7579	1.857442	1.976382	$q = 2.203786$	$(t = - 6.618)$***
Positive Media Coverage of CEOs (ChI index)	$q = 1.605726$	1.712406	1.794772	2.048225	$q = 2.305939$	$(t = - 7.744)$***

Table 7
Media Coverage of CEOs and Stock Return: a Portfolio Analysis

I form portfolios from firms in the sample according to quintiles of the MCI and ChI indices. The table shows abnormal returns of portfolios. Monthly portfolios of the year (N) are formed using annual MCI and ChI indices of the year (N-1) and reset in January of each year. I use Fama and French, and Carhart four-factor, models to compute the abnormal returns of portfolios after controlling for SMB, HLM, RMRF, and Momentum factors. Data of the factors are from Kenneth French's website. For a definition of factors and the Fama-French method, see Fama and French (1992, 1994). Since the sample period spans from January 1992 to December 2002, I have 120 monthly return data. Controlling for the four factors, the alphas are the excess return of the trading strategy based on the MCI and ChI indices over a passive trading strategy. The first rows of Panel A and Panel B show the difference in returns between portfolios of firms in the highest quintile and in the lowest quintile of each index. The sample consists of 2,651 observations for 241 firms present in the Fortune 500 list during all 11 years of the period 1992–2002. Estimated coefficients are marked with three, two, or one stars if significant at 1, 5, and 10 percent levels, respectively, with the standard errors in parentheses.

Panel A: Trading on the Media Coverage Index of CEOs (MCI Index)

	Alpha	RMRF	SMB	HML	Momentum
Buying the highest MCI's quintile -	*0.0066****	*0.076*	*-0.24****	*-0.81****	*-0.049*
Selling the lowest MCI's quintile	*(0.0022)*	*(0.058)*	*(0.058)*	*(0.073)*	*(.039)*
1st (lowest) quintile of MCI index	0.0024	0.91***	-0.094**	0.62***	-0.0073
	(0.0018)	(0.047)	(0.048)	(0.06)	(0.032)
2nd quintile of MCI index	0.0045*	0.81***	-0.26***	0.426***	-0.0467
	(0.0024)	(0.063)	(.063)	(0.08)	(0.043)
3rd quintile of MCI index	0.0041*	0.814***	-0.198***	0.42***	-0.018
	(0.0022)	(0.06)	(0.059)	(0.074)	(0.04)
4th quintile of MCI index	0.0035*	0.86***	-0.33***	0.21***	0.05
	(0.00189)	(0.05)	(0.05)	(0.0625)	(0.0336)
5th (highest) quintile of MCI index	0.009***	0.99***	-0.34***	-0.19***	-0.057**
	(0.0014)	(0.038)	(0.038)	(0.048)	(0.026)

Panel B: Trading on the Positive Media Coverage of CEOs (ChI Index)

	Alpha	RMRF	SMB	HML		Momentum
Buying the highest ChI's quintile -	*0.0058***	*0.128***	*-0.134***	*-0.69****	*(0.08)*	*-0.06*
Selling the lowest ChI's quintile	*(0.0024)*	*(0.064)*	*(0.064)*			*(0.043)*
1st (lowest) quintile of ChI index	0.002	0.866***	-0.21***	0.5***		0.0216
	(0.002)	(0.05)	(0.05)	(0.0623)		(0.033)
2nd quintile of ChI index	0.007***	0.87***	-0.045	0.48***		-0.069*
	(0.0022)	(0.059)	(0.06)	(0.074)		(0.04)
3rd quintile of ChI index	0.0034	0.82***	-0.21***	0.37***		0.0173
	(0.002)	(0.056)	(0.057)	(0.071)		(0.04)
4th quintile of ChI index	0.006***	0.824***	-0.38***	0.22***		-0.0316
	(0.0021)	(0.055)	(0.055)	(0.069)		(0.037)
5th (highest) quintile of ChI index	0.0078***	0.99***	-0.34***	-0.19***		-0.038
	(0.0015)	(0.039)	(0.039)	(0.048)		(0.026)

Table 8
Media Coverage of CEOs and Subsequent CEO Remuneration

This table reports the relationship between media coverage of CEOs and subsequent CEO compensation. In Panel A, I break the sample in quintiles from (1), firms whose CEOs are in the lowest quintile, to (5), firms whose CEOs are in the highest quintile of using one year-lagged MCI and ChI indices, and reports accordingly the quintile's average compensation. For each year (N), MCI and ChI are measured in the year (N-1) and compensation is measured in the year (N). In the last column, I report results of mean tests to compare the average CEO compensation of firms in two extreme quintiles of the one-year lagged MCI and ChI indexes. The figure in parentheses in the last column is *t*-value, starred with three, two, or one stars if significant at the 1, 5, and 10 percent levels, respectively. Panel B shows results of OLS regressions models relating prior CEO media coverage to CEO compensation. Control variables are firm size (log of sales), change of sales for the last one, two and five years, CEO tenure, dummies for industries (2-digit SIC code), and dummies for years. CEO incentive pay (option-based pay less salary and bonus) in (1) and (2), total cash compensation (salary + bonus, Execucomp's TCC item) in (3) and (4), and total compensation (including any kind of compensation) in (5) and (6) are dependent variables, respectively. As defined in Execucomp (Item TDC1), CEO total compensation includes cash, bonus, restricted stock granted, options granted, long-term incentive plan, and all other compensation. Incentive pay is the difference between TDC1 and TCC in Execucomp. I respectively test this relation for the indices of Media Coverage and Positive Media Coverage of CEOs. The main independent variables are one year-lagged MCI and ChI indices. The sample consists of 2,651 firm-year observations from 241 firms present in the Fortune 500 list during all 11 years of the period 1992–2002. The estimated coefficients are marked with three, two, or one stars if significant at the 1, 5, and 10 percent levels, respectively, with standard errors in parentheses.

Panel A: Difference in Media Coverage and Difference in Subsequent CEO Remuneration

Using one year-lagged MCI index

	1st (lowest) quintile of MCI	2nd quintile	3rd quintile	4th quintile	5th quintile (highest) of MCI	Means Tests (1) = (5)
CEO incentive compensation (in thousand USD)	3025.177	3767.375	4542.611	5604.754	12083.92	(*t* = -5.16)***
CEO cash compensation (in thousand USD)	1499.809	1745.054	1911.318	2255.762	3202.049	(*t* = -9.47)***
CEO total compensation (in thousand USD)	4529.126	5519.213	6453.93	7860.516	15289.46	(*t*=-5.98)***

Using one year-lagged ChI index

	1st (lowest) quintile of ChI	2nd quintile	3rd quintile	4th quintile	5th (highest) quintile of ChI	Means Tests (1) = (5)
CEO incentive compensation (in thousand USD)	3022.578	4280.321	4966.438	5587.018	12066.33	(*t* = -5.96)***
CEO cash compensation (in thousand USD)	1587.672	1748.855	1937.434	2374.002	3174.867	(*t* = -10.24)***
CEO total compensation (in thousand USD)	4617.241	6031.298	6903.872	7962.854	15241.19	(*t* = -6.83)***

Table 8
Media Coverage of CEOs and Subsequent CEO Remuneration

Panel B: Media Coverage of CEOs and Subsequent CEO Remuneration

Variables	CEO incentive pay (1)	CEO incentive pay (2)	CEO cash pay (3)	CEO cash pay (4)	CEO total pay (5)	CEO total pay (6)
One-year-lagged MCI Index	4.67*		0.52**		5.19**	
	(2.54)		(0.25)		(2.59)	
One-year-lagged ChI index		24.43**		4.23***		28.67***
		(10.04)		(0.97)		(10.23)
One-year-lagged Tobin's q	782.58**	711.36*	49.55	22.41	832.42**	734.09*
	(382.41)	(381.31)	(37.00)	(36.79)	(389.96)	(388.73)
Log of sales	2839.14***	2786.89***	816.64***	794.10***	3652.12***	3577.29***
	(565.34)	(563.44)	(54.61)	(54.28)	(576.52)	(574.40)
Sale change last year (percent)	0.36	0.36	0.406	0.40	0.72	0.71
	(21.95)	(21.93)	(2.12)	(2.11)	(22.38)	(22.36)
Sale change last three years (percent)	182.44***	184.43***	8.11	8.83	190.86***	193.58***
	(67.04)	(67.00)	(6.48)	(6.45)	(68.37)	(68.31)
Sales change last five years (percent)	-164.2**	-167.75**	-13.44*	-14.41**	-177.97**	-182.46**
	(74.57)	(74.56)	(7.18)	(7.16)	(76.04)	(76.01)
CEO tenure (years)	-37.00	-43.02	27.41***	25.87***	-9.64	-17.19
	(57.87)	(57.96)	(5.60)	(5.59)	(59.01)	(59.09)
Constant	-26013.33**	-25451.38***	-5771.28***	-5533.78***	-32388.54***	-31593.58***
	(7059.34)	(7045.01)	(707.10)	(704.22)	(7198.83)	(7182.04)
Industry dummies	YES	YES	YES	YES	YES	YES
Year dummies	YES	YES	YES	YES	YES	YES
Sample size	2651	2651	2651	2651	2651	2651
Adjusted R-squared	0.0740	0.0751	0.3743	0.3785	0.1028	0.1044
F-statistics	3.85	3.9	20.82	21.20	5.09	5.16

Table 9
Change in Media Coverage and Subsequent CEO Remuneration

This table reports the relationship between change in media coverage of CEOs and subsequent CEO compensation. Control variables are firm size (log of sales); change of sales for the last one, two, and five years; CEO tenure; dummies for industries (2-digit SIC code); and dummies for years. CEO incentive pay (option-based pay less salary and bonus) in (1) and (2), total cash compensation (salary + bonus, Execucomp's TCC item) in (3) and (4), and total compensation (including any kind of compensation) in (5) and (6) are dependent variables, respectively. As defined in Execucomp (Item TDC1), CEO total compensation includes cash, bonus, restricted stock granted, options granted, long-term incentive plan, and all other compensation. Incentive pay is the difference between TDC1 and TCC in Execucomp. I respectively test this relation for change in levels of media coverage and positive media coverage of CEOs. The main independent variables are changes in MCI and ChI indices from year (N-1) to year (N). The sample consists of 2,651 firm-year observations from 241 firms present in the Fortune 500 list during all 11 years of the period 1992–2002. The estimated coefficients are marked with three, two, or one stars if significant at the 1, 5, and 10 percent levels, respectively, with standard errors in parentheses.

Variables	CEO incentive pay (1)	CEO incentive pay (2)	CEO cash pay (3)	CEO cash pay (4)	CEO total pay (5)	CEO total pay (6)
Change in MCI Index (year N, year N-1)	12.12*** (3.51)		-1.74*** (0.34)		10.38*** (3.58)	
Change in CHI Index (year N, year N-1)		75.36*** (13.30)		-7.08*** (1.29)		68.28*** (13.59)
One-year-lagged Tobin's q	1055.54*** (358.98)	1093.41*** (357.38)	71.39** (34.63)	69.47** (34.61)	1127.27*** (366.43)	1163.24*** (365.08)
Log of sales	3003.44*** (551.77)	3105.77*** (549.01)	848.84*** (53.14)	836.60*** (53.07)	3848.73*** (563.22)	3938.73*** (560.84)
Sale change last year (percent)	2.66 (21.91)	3.65 (21.81)	0.12 (2.11)	0.14 (2.10)	2.73 (22.40)	3.73 (22.28)
Sale change last three years (percent)	173.88*** (66.83)	171.65*** (66.51)	7.79 (6.43)	7.88 (6.42)	181.96*** (68.21)	179.82*** (67.95)
Sales change last five years (percent)	-162.87** (74.36)	-167.18** (74.01)	-12.07* (7.14)	-11.90* (7.13)	-175.21** (75.90)	-179.35** (75.61)
CEO tenure (years)	-40.47 (57.68)	-47.33 (57.41)	29.97*** (5.56)	30.04*** (5.56)	-10.54 (58.88)	-17.33 (58.65)
Constant	-27650.97*** (6945.36)	-28199.07*** (6910.85)	-6115.44*** (694.93)	-6009.83*** (694.02)	-34351.69*** (7089.55)	-34820.54*** (7059.72)
Industry dummies	YES	YES	YES	YES	YES	YES
Year dummies	YES	YES	YES	YES	YES	YES
Sample size	2651	2651	2651	2651	2651	2651
Adjusted R-squared	0.078	0.086	0.3629	0.3817	0.1046	0.1365
F-statistics	4.01	4.38	21.39	21.49	5.17	5.49