BEAUTY IS WEALTH: CEO APPEARANCE AND SHAREHOLDER VALUE

Joseph T. Halford and Hung-Chia Hsu[*]

This paper examines whether and how the appearance of chief executives officers (CEOs) relates to shareholder value. We obtain a Facial Attractiveness Index of 667 CEOs based on their facial geometry. CEOs with a higher Facial Attractiveness Index are associated with better returns around their job announcements, and higher acquirer returns upon acquisition announcements. To mitigate endogeneity concerns, we compare stock returns surrounding news dates with CEOs' images to returns surrounding news dates without CEOs' images. Facial Attractiveness Index positively affects returns only around news dates with CEOs' images. These findings suggest that CEO appearance matters for shareholder value.

JEL classification: G30, G34

This paper examines whether and how chief executive officer (CEO) appearance relates to shareholder value. Appearance is associated with various types of outcomes. It predicts candidates' election results (Todorov et al. (2005)), individuals' income (Hamermesh and Biddle (1994)), achievements, peer recognition (Kennedy (1990)), and even military ranks (Mazur et al. (1984)). In the finance literature, appearance affects managerial compensation (Graham, Harvey, and Puri (2014)), personal lending (Duarte, Siegel, and Young (2012); Ravina (2012)), and hedge fund investments (Pareek and Zuckerman (2013)). However, the existing literature examining the effects of appearance mainly focuses on individual outcomes. It is far less clear whether and, in particular, through what channels appearance is related to group welfare, such as shareholder value. In the context of the corporate world, given the importance of the CEO for a company and the evidence that appearance matters in a variety of outcomes, CEO appearance may affect shareholder value in some way(s).

To further assess whether and in what channels CEO appearance is associated with shareholder value, we obtain a Facial Attractiveness Index of 667 CEOs of S&P 500 companies based on facial geometry.[1] Since the time of ancient Greece, a person's facial geometry, including the golden ratio and facial symmetry, has been well documented as an objective measure of beauty and attractiveness (Atalay (2004)).[2] The relation between facial geometry and attractiveness has thus become a significant research topic in the psychology and biology

---

[1] In this study, we focus on the valuation effects of attractiveness instead of other appearance-based qualities, such as competence and trustworthiness.

[2] For example, an ABC News article titled "Britain's 'Most Beautiful Face' Reveals Beauty Secrets" states that "The formula for beauty devised by the ancient Greeks said that the distance from the eyes to the mouth should be one third of the face." (http://abcnews.go.com/blogs/lifestyle/2012/04/britains-most-beautiful-face-reveals-beauty-secrets/)

literature. The evidence confirms that attractiveness is associated with facial averageness,[3] symmetry,[4] golden ratio, and other geometry-based facial features.[5]

We obtain each CEO's Facial Attractiveness Index from Anaface.com, a web-based photo analysis application that computes a facial beauty score according to a person's facial geometry. The construction of this score is based on scientific research, various elements of neoclassical beauty, and statistical analysis. Elements used to calculate the facial beauty score include comparing innerocular distance to mouth width, and nose width to face height. For each CEO we sample the facial beauty scores from Anaface.com six times, and then obtain the average of these six scores as the measure of the Facial Attractiveness Index. To ensure the validity of this facial attractiveness measure, we conduct surveys on the attractiveness of the same sample of CEOs through Amazon's Mechanical Turk (Mturk) service.[6] The Facial Attractiveness Index is positively related to attractiveness ratings by survey respondents, even after controlling for a number of CEO characteristics and facial traits.

Our findings are summarized as follows. First, more attractive CEOs are associated with better stock returns around their job announcements, after controlling for a number of additional CEO personality traits and skills, including facial width-to-height ratio (a proxy for facial masculinity, which is documented to relate to a person's testosterone levels), gender, age, tenure, overconfidence, education, as well as CEO photo characteristics, such as whether the CEO wears

---

[3] For studies on the relation between attractiveness and facial averageness, see Langlois and Roggman (1990), Perrett, May, and Yoshikawa (1994), Rhodes and Tremewan (1996), Perrett et al. (1998), and Rhodes, Sumich and Byatt, (1999), among others.

[4] For the literature on the relation between attractiveness and facial symmetry, see Grammer and Thornhill (1994), Rhodes, Proffitt, Grady, and Sumich (1998), Perrett, Burt, Penton-Voak, Lee, Rowland, and Edwards (1999), Rikowski and Grammer (1999), Jones, Little, Penton-Voak, Tiddeman, Burt, and Perrett (2001), among others.

[5] For the literature in this vein, see Shi, Samal, and Marx (2006), Schmid, Marx, and Samal (2008), and Pallet, Link, and Lee (2010), among others.

[6] Amazon's Mturk service has been widely used in survey-based research. For example, Duarte, Siegel and Young (2012) use surveys from Mturk to measure trustworthiness of potential borrowers in the setting of peer-to-peer lending.

glasses and/or smiles in the photo. This effect appears to be economically significant: A ten percent increase in a CEO's Facial Attractiveness Index relates to a 1.18% increase in abnormal returns within ten days surrounding the job announcement date. This result provides the initial evidence that CEO appearance enhances shareholder value and that more attractive CEOs seem to gain a "first impression" advantage in stock prices.

We then propose and test two channels through which CEO attractiveness matters for shareholder value: *negotiating* and *visibility*. With regard to the *negotiating* channel, existing evidence suggests that more attractive people receive better treatments when negotiating with others, and/or are better communicators and negotiators; they thus receive a greater surplus in negotiation (Chaiken (1979); Rosenblatt (2008)). We examine a key corporate event in which interpersonal communications and negotiations are considered extremely important—mergers and acquisitions (M&As).[7] We find a positive and significant relation between CEO attractiveness and acquirer returns around merger announcement dates. In addition, we separate the sample firms into high and low CEO attractiveness portfolios, and find that the positive relation between attractiveness and stock returns persists for a period of even greater than one year following the merger announcements. These findings support the argument that more attractive CEOs enhance shareholder value through the negotiating channel.

With regard to the *visibility* channel, the psychology literature suggests that attractiveness is likely to affect people's perceptions (Berger et al. (1972)); further, the marketing literature shows that more attractive product endorsers promote consumers' purchase intentions (Kahle and Homer (1985)). As CEOs are often perceived as the "face" of a firm, more attractive CEOs are likely to create better images for the firm, thus enhancing shareholder value. To test the

---

[7] *The Wall Street Journal*, August 21, 2006, "Best acquisitions start with charming CEO." The article states, "There is no substitute for establishing good personal rapport with sellers…As they see it, their biggest edge comes not from what they do in the boardroom, but from getting on the road and wooing possible sellers."

visibility channel, we examine stock price reactions to variations in the visibility of CEOs surrounding news event dates.[8] The test of the *visibility* channel also provides the empirical benefits of mitigating potential endogeneity concerns, as the media nature of the sample allows us to compare stock returns of the treatment group, i.e., news events with CEOs' images, to those of a control group, i.e., news events without CEOs' images.

We test this channel in two different settings. First, we compare the effects of facial attractiveness on stock returns around television news events with the CEOs' images to the effects of facial attractiveness on returns surrounding a matched sample of non-television news events without the CEOs' images. Second, we examine the difference in stock price reactions between earnings announcement news containing CEOs' photos and a matched sample of earnings announcement news without the CEOs' pictures.[9] In both settings, CEO attractiveness has a positive and significant impact on stock returns around news events when CEO images are visible, but has no significant impact on stock returns around the matched samples of news events without CEO images. These tests net out additional firm and CEO characteristics that might confound the positive attractiveness-return relation and therefore help mitigate the endogeneity concerns.

To further ensure the robustness of these findings, we use an alternative measure of CEO attractiveness, i.e., the predicted value of survey-based CEO attractiveness based on a CEO's facial and photo characteristics.[10] This predicted survey-based attractiveness gauges the fraction

---

[8] This test builds on a large literature that documents the influence of media on stock returns. See Merton (1987), Tetlock (2007), Kim and Meschke (2013), and Lou (2014), among others.

[9] The benefits of using earnings announcement news are two-fold. First, comparing print (earnings announcement) news with and without CEOs' images alleviates potential concerns that visual correlates of CEO appearance (such as body language) may otherwise drive the positive CEO attractiveness effects in the television sample. Second, examining only earnings announcement news enables us to control for the magnitude of the news using measures that proxy for unexpected earnings.

[10] In other words, we regress the survey-based attractiveness on the following variables: Facial Attractiveness Index, facial width-to-height ratio, CEO race, whether the CEO smiles, baldness, whether the CEO wears glasses,

of survey respondents' subjective ratings based on observable facial traits of a CEO and excludes other factors that might affect the respondents' ratings. We continue to find that more attractive CEOs relate to better stock returns in all of the aforementioned analyses using this alternative measure.

Our paper relates to the literature regarding the effects of CEOs on corporate outcomes. Existing literature finds that manager fixed effects matter (Bertrand and Schoar (2003); Graham, Li, and Qiu (2012); Coles and Li (2012)). Further, characteristics of CEOs, including gender (Faccio, Marchica, and Mura (2012)), overconfidence (Malmendier and Tate (2005, 2008); Malmendier, Tate, and Yan (2011)), psychological traits, attitudes (Graham, Harvey, and Puri (2013)), affective states (Mayew and Venkatachalam (2012)), and their various abilities and skills (Kaplan, Klebanov, and Sorensen (2012)) matter for firm investment and success. We show that CEO attractiveness matters for shareholder value through two channels: negotiating and visibility.

The present study also relates to the literature on whether and how news on corporate events, revealed through different types of media, affects stock prices. Studies show that stock returns can be predicted by the "tone" of news articles (Tetlock (2007), among others) and that of social media such as Twitter (Chen, Hwang, and Liu (2015)). Focusing on the media effects in television, Kim and Meschke (2013) find abnormal returns around CEOs' interviews on CNBC. In the context of mergers, Giglio and Shue (2014) show that the absence of news and the passage of time following merger announcements contain information about the probability of merger completion, which strongly predicts returns. Our findings suggest that, after controlling for news

---

whether the selected picture is in color, whether the selected picture is a professional photo. We then obtain the predicted value for each CEO as the predicted survey-based attractiveness.

contents, factors unrelated to news themselves, such as the attractiveness of interviewees on television, matter for stock returns. [11]

The rest of the paper is organized as follows. Section I reviews related literature, develops the hypotheses, and discusses the empirical strategies. Section II describes the data and the construction of the Facial Attractiveness Index. Section III presents the main results. We report robustness tests in Section IV. Section V concludes.

I. The Setting

A. Literature Review

The effects of attractiveness are a central issue in the sociology and psychology literature. Studies along this line aim to address two main issues. First, do more attractive people receive different *perceptions* and *treatments* from others than less attractive people (the perception story)? Second, do more attractive people exhibit different *characteristics* (such as personality traits, skills, and behavioral tendencies) than less attractive people (the characteristics revelation story)? In answering the first issue, Status Characteristics Theory (Berger et al. (1972)) posits that perceptions and expectations of other people are based on observable characteristics, which reflect status in our society—race, age, sex, and attractiveness. Consistent with this theory, more attractive people are *perceived* to have better abilities (Webster and Driskell (1978)), possess greater social influences (Chaiken (1986)), are better recognized by peers (Kennedy (1990)), receive better treatments in a variety of settings (Hosoda et al. (2003); Langlois et al. (2000)), and are even viewed as less disturbing when they are maladjusted (Cash et al. (1977)).

In response to the second issue, a plethora of experimental studies suggests that more attractive people show more socially desirable personalities (Adams (1977); Langlois et al.

---

[11] Dougal, Engelberg, Garcia, and Parsons (2012) find that the style of journalists affect stock returns; Kim and Meschke (2013) show that stock trading after CEO interviews on CNBC is positively related to attractive anchorwomen and more male viewership.

(2000)), are better able to resist peer pressure (Adams (1977)), are happier (Hamermesh and Abrevaya (2013)), more confident (Mobius and Rosenblatt (2006)), more optimistic (Chaiken (1979)), and more intelligent (Kanazawa (2011)).

Based on the summary above, it is not surprising that the literature finds more attractive people attaining better social and economic achievements, including better academic performance (Jackson, Hunter, and Hodge (1995)), higher income (Hamermesh and Biddle (1994)), and more favorable hiring decisions (Gilmore, Beehr, and Love (1986)).

A growing body of literature examines CEO appearance and/or facial features and their implications for corporate outcomes. Using survey-based measures, Graham, Harvey, and Puri (2014) find that more competent looking CEOs receive higher compensation, but don't seem to improve accounting performance such as return on assets (ROA). Rule and Ambady (2008, 2009) also use survey-based measures for 50 CEOs from *Forbes* 500 Companies in 2006; they find that more powerful-looking CEOs are associated with higher corporate profits.[12] Using a different geometry-based measure, Cook and Mobbs (2014) show that more attractive candidates are more likely to be appointed as CEOs.

Our paper differs from these studies in the following aspects. First, both Graham, Harvey, and Puri (2014) and Rule and Ambady (2008, 2009) show dominant effects of competent- and powerful-looking CEOs on compensation and performance, where the present study documents the significant effects of CEO attractiveness on shareholder value. Second, our paper distinguishes two aforementioned mechanisms through which appearance affects individual and social outcomes: the perception story and the characteristics revelation story. Specifically, the visibility channel provides evidence of the perception story, while the negotiating channel is

---

[12] Graham, Harvey, and Puri (2014) point out that the results from Rule and Ambady (2008) are hard to interpret because they do not scale profitability by firm size.

consistent with both the perception story and the characteristics revelation story. We discuss these two channels in more detail in Section I.B.

Recent literature suggests that a person's facial masculinity, measured by the facial width-to-height ratio, is indicative of his or her testosterone levels and affects certain behavioral traits, including aggression, risk seeking, and dominant actions.[13] Consistent with this view, CEOs with a higher facial width-to-height ratio are more likely to deliberately misreport financial statements (Jia, Lent, and Zeng (2014)), increase firm risks (Kim and Kamiya (2015)), and are associated with better firm performance (Wong, Ormiston, and Haselhuhn (2011)). This strand of literature lends further support to the characteristics revelation story, where our paper presents evidence of the perception story as previously mentioned. Further, we don't find Facial Attractiveness Index to be significantly correlated with facial width-to-height ratios in this study; controlling for the facial width-to-height ratio does not change the positive effects of CEO attractiveness on shareholder value.

This paper also relates to the literature on the economic effects of individuals' physical attributes, such as height and body mass index. For example, Persico, Postlewaite, and Silverman (2004) find that taller workers receive a wage premium; Addoum, Korniotis, and Kumar (2013) show that individuals who are tall and of normal weight relative to their peers are more likely to participate in financial markets and hold riskier portfolios. The existing literature along this line focuses on the relation between physical attributes and individual outcomes. We examine a special group of individuals—CEOs—and find evidence that an individual's physical attractiveness may also affect *group* welfare, such as shareholder value.

---

[13] For example, facial width is associated with testosterone levels in men (Lafevre et al. (2013)), dominance (Valentine et al. (2014)), aggressive behavior (Carré and McCormick (2008); Carré, McCormick, and Mondloch (2009)), and unethical behavior (Haselhuhn and Wong (2012)), among others.

B. Hypothesis Development

The key question in this article is whether and how attractive CEOs enhance shareholder value. In what follows, we develop several hypotheses that form the basis for the empirical tests.

The first hypothesis relates to the existence of the value enhancing effects of CEO attractiveness. The study of stock price reactions around a CEO's job announcement date provides a natural starting point to gauge this effect for the following reasons. First, a new CEO creates substantial uncertainty as investors are unsure about his or her ability to change firm value (Pan, Wang, and Weisbach (2015)). Based on the aforementioned review of literature, more attractive people may have, or are perceived to have, certain attributes and abilities that create value. Therefore, investors may infer these attributes and abilities from a new CEO's appearance and make investment decisions accordingly. If CEO attractiveness is indeed factored into investor assessments and thus affects shareholder value, we would expect this CEO attractiveness effect on stock prices to exist around a new CEO's job announcement date. More formally:

> *Hypothesis 1* More attractive CEOs are associated with better stock returns around their job announcement dates.

The above hypothesis discusses the existence of the value enhancing effects of CEO attractiveness, if any. But a natural follow-up question is why CEO attractiveness is associated with better shareholder value. The following two hypotheses aim to answer this question.

First, more attractive individuals appear to be, or are perceived to be, more effective communicators (Chaiken (1986)) and negotiators (Rosenblatt (2008)); they receive a greater surplus in negotiating games (Rosenblatt (2008)) and more fundraising success (Price (2008)), possibly due to the acquisition of social skills developed through more positive attention from

parents, caregivers, teachers, and coworkers (Hatfield and Sprecher (1986); Langlois et al. (2000)). Therefore, more attractive CEOs may enhance shareholder value through corporate events in which interpersonal communications and negotiations are extremely important. Mergers and acquisitions (M&As) provide an ideal setting for testing this negotiating channel for the following reasons. First, M&As are considered to be important and even milestone corporate events that significantly affect firm value. Second, large M&As demand CEOs' considerable involvement, which is an important factor in deciding the success of these deals. We therefore hypothesize that more attractive CEOs create value for shareholders in M&As through the negotiating channel:

> *Hypothesis 2 (Negotiating Channel):* More attractive CEOs are associated with better acquirer returns around the announcement of M&A transactions.

The second channel is related to the visibility of CEO attractiveness. The aforementioned Status Characteristics Theory suggests that people are likely to form their perceptions and expectations of an individual based on his or her attractiveness. Indeed, marketing literature shows that more attractive celebrity product endorsers are positively associated with consumers' purchase intentions (Kahle and Homer (1985)) and that buyer satisfaction is positively associated with the sellers' attractiveness (Campbell, Graham, Jolibert, and Meissner (1988)). CEOs are often perceived as the embodiment of the firm and are indeed the principal corporate decision makers. Therefore, more attractive CEOs may create better images not only for themselves but also for the firm, thus enhancing shareholder value. A natural testing ground for this visibility channel is the study of stock price reactions to CEOs' appearance in the media. If, indeed, visibility is an important channel for attractive CEOs to create positive images about the firm and

11

thus firm value, we should expect a positive relation between CEO attractiveness and stock prices on days when the CEO's image appears in the news. Therefore:

Hypothesis 3 (Visibility Channel): More attractive CEOs are associated with better stock returns when the CEOs' images appear in the news.

C. Empirical Strategies

As reviewed in Section I.A, existing findings on the effects of appearance support two views, i.e., more attractive people receive different *perceptions* and *treatments* from others (the perception story), and more attractive people exhibit different *characteristics* than less attractive people (characteristics revelation story). In the context of this study, both views could explain Hypothesis 1 and 2. For example, in the setting of M&A announcements, it is likely that an attractive CEO charms negotiators of a target firm. Alternatively, he or she may be a better negotiator, resulting in higher acquirer returns. In empirical testing, the second view raises concerns for identification, as other CEO characteristics manifested by appearance, rather than appearance itself, might drive shareholder value.

We provide two empirical strategies to mitigate the endogeneity issue. First, we control for variables that proxy for several CEO characteristics that may confound the effects of CEO attractiveness on stock returns; these variables include gender, age, tenure, overconfidence, race, education, and facial masculinity. We also control for CEO photo characteristics, including baldness, whether the CEO wears glasses in the photo, whether the CEO smiles in the photo, and the type of the photo (i.e., color and/or professional photos). Second, we analyze differential CEO attractiveness effects on stock returns between a treatment sample, which shows a CEO's image, and a control sample without the CEO's image. The media nature of the sample for the *visibility* hypothesis allows us to find a control group to conduct this test. Specifically, we

compare the effects of CEO attractiveness on stock returns around news events with the CEO's image (the treatment group) to those surrounding a matched sample of news events for the same CEO, but without his or her image (the control group). This test is based on the assumption that the unobservable firm and CEO characteristics driving the attractiveness-return relation have the same effects across the two samples. Comparing these two samples nets out the effects of these unobservable factors and thus helps mitigate the endogeneity concern.

The above empirical strategies have both strengths and weaknesses. On the plus side, we are able to build a stronger causal link between CEO appearance and shareholder value through the *visibility* channel (Hypothesis 3), which also supports the perception story. On the minus side, we are limited in what we can establish about a causal relation between CEO appearance and shareholder value for Hypotheses 1 and 2 due to the difficulty in obtaining valid counterfactuals in testing these two hypotheses. Therefore, despite our effort to control for observable CEO characteristics, tests for the first two hypotheses remain open to the possibility that CEO appearance might be correlated with unobservable CEO and/or firm traits (such as genes) that drive firm value.

II. Measure of CEO Attractiveness and Sample Description

In this article, we use different samples to test the aforementioned hypotheses on whether and how CEO appearance relates to shareholder value. In what follows, we discuss how we measure CEO attractiveness in Subsection A. We describe the sample used in each of the different tests in Subsection B, including (1) the main sample of CEOs, and samples used to study the CEO attractiveness effects around (2) job announcements, (3) M&A announcements, (4) television news events, and (5) earnings announcement news events. We present descriptive statistics in Subsection C.

A. Measuring CEOs' Facial Attractiveness

The effects of perceived facial attractiveness have been well studied in the psychology literature (Cunningham (1986); Cunningham, Barbee, and Pike (1990); Cunningham et al. (1995)). A large body of this literature measures facial attractiveness based on ratings given by survey respondents. Recently, biostatisticians have started to use facial geometry calculated from standard images to measure facial attractiveness. For example, using neoclassical canons, symmetry, and golden ratios, Schmid, Marx, and Samal (2008) take facial measurements from different landmarks on the face and compute facial attractiveness scores accordingly.[14] In this paper, we calculate the Facial Attractiveness Index (FAI) of CEOs from Anaface.com, which appears to use similar techniques to those used by Schmid, Marx, and Samal (2008). The "Frequently Asked Questions" section on the website provides the following information with respect to how it measures facial geometry:

> [Anaface.com's] specific algorithm is proprietary, but we take into account many factors from neoclassical beauty, modern research papers, and our own scientific studies/statistical analysis. Examples include things such as comparing innerocular distance to mouth width and nose width to face height.

Anaface.com requires the user to upload a photograph to the website and place 17 different markers at different facial landmarks on the photograph (see Figure 1 for an example). Anaface.com then scores each face based on its proprietary algorithm. As shown in Figure 1, Anaface.com also provides some guidance on which factors contribute to the overall score: Horizontal symmetry, the ratio of nose to ear length, the ratio of eye width compared to innerocular distance, the ratio of nose width to face width, the ratio of face width to face height,

---

[14] We contacted one of the authors in this study for the use of their measure, which was not readily available for distribution.

and the ratio of mouth width to nose width. To ensure the validity and reliability of this measure, for each CEO we sample the facial beauty scores from Anaface.com six times, and then take the average of these six scores as our measure of Facial Attractiveness Index. [15]

[Figure 1 goes here]

This geometry-based facial attractiveness measure provides the following advantages: (1) this measure is based on facial geometry and excludes more subjective criteria such as eye color, skin color, and complexion, and (2) this measure is easy to quantify using geometry and mathematics.

This geometry-based measure also has limitations. The precision requirements of the uploaded CEO photos include (1) sufficient resolution, (2) the CEO's face looking directly at the camera, and (3) visibility of each of the facial landmarks required by Anaface.com.[16] We collect photographs for each of the 821 CEOs in our initial sample by conducting image searches on Google.com. We are able to carefully select images for 667 of the 821 CEOs that satisfy the requirement of Anaface.com's algorithm. Nevertheless, potential measurement errors may still occur, as certain facial traits and photo characteristic may distort the Facial Attractiveness Index. For example, companies that have better M&A opportunities may also be those companies that happen to circulate more professional CEO photos, potentially resulting in a higher Facial Attractiveness Index due to better photo quality. In this case, the positive relation between Facial Attractiveness Index and acquirer returns is spurious due to the non-random measurement error, i.e., the CEO's photo appears to be more formal and professional. To address these issues, in all of the regression analyses, we control for several CEO facial traits and photo characteristics,

---

[15] The authors along with four research assistants collected the scores; we conduct inter-rater reliability tests (described in detail in Section IV.A) to ensure the measure is unaffected by individuals who take the measurements.
[16] For example, one of the landmarks required by Anaface.com is the top of the CEO's ears. This is especially problematic for female CEOs with long hair styles.

including whether the CEO smiles in the picture (*Smiling*), whether the CEO is bald (*Bald*), whether the CEO wears glasses (*Glasses*), whether the selected CEO picture is considered a professional photo (*Professional*), and whether the CEO photo is in color (*Color photo*). In what follows, we describe the samples and data sources in detail.

B. Sample

B.1. Main CEO Sample with Facial Attractiveness Index

The selection of our main sample begins with the intersection of the *Execucomp Annual Compensation* file (*Execucomp*) and the *Compustat North America Fundamentals Annual* file (*Compustat*). Both databases are available from *Wharton Research Data Services*.

Because we rely on Google.com's image searches to compute the Facial Attractiveness Index of CEOs, we restrict the sample period to be between 2000 and 2012 and include only those firms that are in the S&P 500 index in *Execucomp*. These two screening procedures ensure that (1) the CEO in question is more likely to be a public figure as he or she is leading a large public company, and (2) images of the CEO are more likely to be available on the Internet following 2000 after the Internet gained general popularity. These screens result in 821 unique firm-CEO combinations. After eliminating observations with missing firm/CEO level data or without valid CEO photos, the final sample consists of 667 CEOs. We further obtain these CEOs' characteristics from *Execucomp*, including their age, tenure, gender, and starting and ending dates on the job. Finally, companies' stock price information comes from *The Center for Research in Security Prices* (*CRSP)*, and their accounting information comes from *Compustat*. Appendix A provides definitions of variables used in this paper and their data sources.

B.2. Sample on CEO Job Announcements

To analyze whether more attractive CEOs are associated with better stock returns around their job announcement dates as predicted in Hypothesis 1, we base our sample on the 667 CEOs with FAIs (described in Section II.B.1) and hand-collect data on their job announcement dates from two sources: *LexisNexis* and *Proquest*. From both databases we search all online and print articles about CEO job announcements. In the vast majority of cases we are able to find unique announcement dates; in cases where we find multiple report dates about a CEO's job announcement, we select the earliest report date as the announcement date.[17] We further verify these announcement dates using CEO profiles on Businessweek.com and Forbes.com. In addition, we exclude interim CEOs, cases in which the CEO's job announcement date is confounded by another major corporate event such as divestitures or bankruptcies, and cases in which the CEO is a founder. The final sample contains 486 job announcements of 485 CEOs (out of the 667 CEOs with a Facial Attractiveness Index) between 1985 and 2012 from 287 firms.[18] This sample is used in Table II.

B.3. Sample on Mergers and Acquisitions

Hypothesis 2 (the Negotiating Hypothesis) posits that more attractive CEOs are associated with better acquirer returns around M&A announcements. To test this hypothesis, we rely on acquirer information provided by the *Securities Data Company (SDC) Mergers and Acquisition Database*. From this database we identify all acquisition announcements that occurred during the tenure of the 667 CEOs in our main sample. We further exclude international

---

[17] For each CEO we search Proquest and Lexis Nexis for the earliest announcement of the executive becoming the CEO. For example, if an executive was being "groomed" to become the CEO, we use the "grooming" announcement date as our announcement date. This procedure ensures that market was surprised by the announcement of the successor.

[18] We find one CEO who switches firms within the sample. Therefore, we have 485 CEOs with 486 job announcement dates. Further, our sample contains CEOs who held their positions during 2000 to 2012, but the job announcements of CEOs date back to as early as 1985. In the analyses we control for a number of CEO characteristics, including age, tenure, and education, to address potential biases resulting from this backdating issue.

acquisitions, acquisitions in which the bidder acquired less than 50% of the target's shares, and transactions for which we cannot compute the ratio of transaction value to the bidder's market value of equity (the variable *Transaction value*). Finally, we exclude acquisitions in which the transaction value is less than $5 million or the ratio of the transaction value to the bidder's market value is less than 5% to ensure that we capture M&As that have a material impact on the firm and that require substantial CEO involvement. The final sample contains 591 M&As from 1985 to 2012 that are associated with 278 CEOs in 217 firms.[19] This sample is used in Table III.

B.4. Sample on CEOs' Television News Dates

Hypothesis 3 (the Visibility Hypothesis) posits that more attractive CEOs enhance shareholder value through their appearance in the media. To test this hypothesis, we identify television news events when the CEO or the image of the CEO appears on television by conducting Internet searches using the video search function from Google.com. We further restrict the search to only the news from CNBC.com. We search for each CEO by name and record the headline and air date of each television news event. The availability of CEO television news events on CNBC.com is limited prior to 2008, so we restrict our sample to appearances that occurred between 2008 and 2012. We additionally require that each television news event air during the CEO's tenure.

To mitigate the endogeneity concerns for analyses on the television news sample, we form a matched sample of non-television news events as the control group, i.e., news articles that contain information on the same group of CEOs, but do not include any images of the CEOs. We further restrict that these non-television news events occur within ten days before or after each

---

[19] Our sample contains CEOs who held their positions during 2000 to 2012, but some CEOs in this sample started their tenure as early as 1985. Since we trace all M&A transactions that occur during a CEO's tenure, we include these transactions from 1985. Again, in the analyses we control for additional CEO characteristics to address potential biases resulting from this backdating issue.

CEO television news event date. To identify the non-television news events that involve the same group of CEOs, we search *Proquest's ABI/Inform Complete* by CEO name and company.[20] To ensure that our print news event is not a transcript from television news, we exclude news articles that have the following keywords: "CNBC," "Bloomberg," "CBS," "Fox News," "MSNBC," "CNN," "ABC," "NBC," "TV," "tv," or "television" in the headline, abstract, copyright, or publication title. We further hand-check the remaining print news events to make sure they are not television transcripts. We then carefully review each television and print news event, remove those that are unrelated to the CEO in question, and exclude print news articles with CEO images. To ensure that the effects of the visibility of CEOs' attractiveness are not contaminated, we exclude those television (print) news events that occur within +/- 1 day of the print (television) news event. Our final sample of "clean" television (print) news events contains 801 (914) observations. The samples of both television and print news events are used in Panel A of Table V.

We also control for the effects of news content on stock returns around both the television and print news events. Specifically, we classify the content of each news event into 12 categories—investment, mergers and acquisitions, earnings, financial policies, personnel, legal, company, product, political, industry, international, and other—and control for these news content dummies in the analyses. Finally, using major sports event days as a source of exogenous variation, we control for potential selection bias that CEOs with higher FAIs are selected into television or print news events. We further discuss this robustness test in Section IV.D.

---

[20] *Proquest's ABI/Inform Complete* is a comprehensive database of news stories including newspapers, magazines, news wires, annual reports, and scholarly reports. We eliminate annual reports and scholarly reports from our searches.

B.5. Sample on Earnings Announcement News

We further use earnings announcement news with and without CEOs' photos to ensure the robustness of the results on the Visibility Hypothesis. We first obtain all quarterly earnings announcement dates during the CEO's tenure from I/B/E/S. We then use the image search function from Google.com to identify whether a CEO's image appears in the print earnings announcement news. We are able to identify 122 earnings announcement news dates with CEOs' images from 2000 to 2012.

We also form a control sample of earnings announcement dates without the CEO's image appearing in the news; the control sample is matched based on the same quarter of the prior year to the treatment sample.[21] Both the samples of earnings announcement news are used in Panel B of Table V.

The advantages of using earnings announcement news are two-fold. First, by examining the differential effects of CEO appearance using only print news with and without CEOs' images, we address potential concerns that visual correlates of CEO appearance might otherwise drive the positive *FAI* effects on television. Second, by focusing on earnings announcement news, we are able to control for the magnitude of the news using measures that proxy for unexpected earnings.

C. Summary Statistics

Panel A of Table I reports the summary statistics. We present the descriptive statistics of the main sample (discussed in Section II.B.1) in Panel A1 and descriptive statistics of the remaining samples (discussed in Sections II.B.2 to II.B.5) in Panel A2. The average Facial Attractiveness Index (*FAI*) in the main sample is 7.25 out of a maximum score of 10. The

---

[21] In unreported results we also match to all other quarterly earnings announcements in the same year unaccompanied by a photo in print news. The results are not materially different.

average *FAI* ranges between 7.17 and 7.29 across samples of CEO job announcements, M&A announcements, television/print news events, and earnings announcement news events. The average firm size (proxied by market value of equity) ranges from $16.2 billion to $50.8 billion across different samples, reflecting our sample selection criteria that focus on large U.S. public companies.

Certain types of firms or firms in certain industries may tend to select more attractive CEOs, raising concerns that the effects of *FAI* on shareholder value are confounded by other firm characteristics. For example, larger companies or companies with worse performance may have more resources or incentives to hire more attractive CEOs. To mitigate this concern, Panel B of Table I presents regression results of the natural logarithm of *FAI* as the dependent variable on the firm-specific control variables in each of the aforementioned samples. We do not find *FAI* to be consistently correlated with these firm characteristics—firm size, firm value (proxied by the market-to-book ratio), stock returns, and leverage ratios—across different samples. In unreported results, we do not find *FAI*s to be significantly different by industry either. Finally, in all of the analyses of the effects of *FAI* on shareholder value, we control for these firm characteristics to alleviate concerns that differences in size or other firm characteristics may be omitted variables causing the differences in stock returns.

In Panel B (Table I) we also examine the relation between *FAI* and a variety of CEO characteristics, including facial width-to-height ratio, gender, age, tenure, overconfidence, talent, educational background and race. We measure a CEO's facial width-to-height ratio (*fWHR*) as the distance between the two zygions relative to the distance between the upper lip and the highest point of the eyelid. We use the ImageJ software (Rasband (2008)) provided by the

National Institutes of Health to obtain *fWHR* for each CEO in our sample.[22] In addition, CEO overconfidence is well documented to affect a variety of corporate outcomes (Malmendier and Tate (2008); Campbell et al. (2011); Hirshleifer, Low, and Teoh (2012), among others). We thus follow Hirshleifer, Low, and Teoh (2012) and measure CEO overconfidence using *OC67*, an indicator variable that takes the value of one if the CEO has options more than 67% in-the-money at least two times during his or her tenure, and zero otherwise. Further, we follow Falato, Li and Milbourn (2011) and Custódio, Ferreira, and Matos (2013) and measure CEO talent using an *Ivy League* dummy—an indicator variable that takes the value of one if the CEO attended an Ivy League school at any academic level. We also include an *MBA* dummy that takes the value of one if the CEO earned an MBA degree to measure the CEO's educational background. Again, we do not find these CEO characteristics to consistently affect *FAI* across the samples. Finally, in Panel B (Table I), to eliminate potential measurement errors pertaining to *FAI*, we also control for CEO facial traits and photo characteristics discussed in Section II.A—*Smiling*, *Bald*, *Glasses*, *Professional*, and *Color photo*. Once again, in all later analyses on the effects of *FAI* on shareholder value, we control for these CEO characteristics as well as the facial traits and photo characteristics variables.

[Table I goes here]

III. Empirical Results

In Section I we develop three hypotheses on the impact of CEO attractiveness. Those hypotheses are tested in this section. We analyze the effects of *FAI* on shareholder value around CEO job announcements in Subsection A. We examine the CEO attractiveness effects around

---

[22] The mean *fWHR* in our sample is 2.18, which is similar in magnitude to what Jia, Lent, and Zeng (2014) report (2.01).

M&As in Subsection B. We investigate how *FAI* affects stock returns around news events in Subsection C. We discuss alternative explanations for these results in Subsection D.

A. CEO Attractiveness and Stock Returns around CEO Job Announcements

Hypothesis 1 states that firms with more attractive CEOs receive better stock price reactions around their job announcement dates. Table II presents regressions of cumulative abnormal returns surrounding the CEO job announcement dates on the natural logarithm of *FAI* (*Log(FAI)*). To ensure the robustness of the results, we analyze multiple event windows from event window (-2, 2) to event window (-5, 5). Abnormal returns are calculated using the market-model estimated over 255 trading days while ending 46 trading days before the event date.

FAI has a positive and significant impact on stock returns surrounding the announcement dates. Moreover, this effect appears to be economically significant: For the (-5, 5) event window, a ten percent increase in *FAI* results in a 1.18% increase in stock returns. These findings suggest that shareholders perceive more attractive CEOs to be more valuable.[23]

In Table II we further extend the analysis to longer event windows, starting from five days before to 60 days after the announcement dates. *FAI* continues to have a positive and significant impact on stock returns. Further, the economic significance grows even larger with a longer event window: A ten percent increase in *FAI* corresponds to a 1.90% increase in stock returns for the event window (-5, 60).

In Table II, we control for a number of firm, CEO, and photo characteristics, which we discuss in Section II.C. The coefficients on *FAI* remain positive and significant after controlling for these characteristics.

---

[23] In all of the analyses, the results do not materially change when we replace *Log(FAI)* with *FAI* as our main explanatory variable; the results are also robust to Winsorization at the top and bottom 1% of *Log(FAI)* and *FAI*.

The effects of *FAI* could also be confounded by the nature of CEO turnover, such as whether (1) the new CEO is selected within or outside the company, (2) the company in question hires a new CEO who used to be an executive from another company (i.e., the new CEO is raided from another company), (3) the former CEO is forced to leave, and (4) there exists a period of power vacuum between the former CEO's departure and the new CEO's announcement (called marathon succession). To control for these potential confounding effects related to CEO turnovers, all models of Table II include four dummy variables, namely, *Internal*, *Raided*, *Forced* and *Marathon*. Once again, controlling for these potential confounding variables does not affect the significance of the *FAI* effects.

[Table II goes here]

B. CEO Attractiveness and Acquirer Returns

The results reported in Section III.A suggest that more attractive CEOs are associated with better stock returns around the job announcement dates, but they do not reveal *why* more attractive CEOs enhance shareholder value. In this section, we test the Negotiating Hypothesis by examining the effects of CEO attractiveness on acquirer returns in M&As. We report results on the short-term price reaction around mergers announcement dates in Section III.B.1. We further present the long-term stock performance results following the mergers announcements in Section III.B.2.

B.1. Short-term Price Reaction

Table III shows regression results of abnormal acquirer returns surrounding the M&A announcements on Facial Attractiveness Index. As in Table II, we also use multiple event windows to assess the robustness of the results. Consistent with the Negotiating Hypothesis, we find a positive relation between the acquirers' stock returns and *Log(FAI)* surrounding the M&A

announcement dates. Specifically, a ten percent increase in *FAI* creates a 1.27% increase in acquirer returns for the event window from five days before to five days after the merger announcement, and a 1.82% increase when we expand the event window from five days before to 60 days after the announcement.

The positive effects of *FAI* around M&A announcements could be confounded by other firm characteristics variables. For example, Betton, Eckbo, and Thorburn (2008) find that firm size and whether the target firm is publicly listed or not are two important determinants in explaining acquirer returns in M&As. In Table III we control for these variables. Consistent with Betton, Eckbo, and Thorburn (2008), acquirers of public targets have lower announcement returns. More important, controlling for these factors does not affect the significance of the *FAI* effects.

The positive effects of *FAI* could be confounded by the anticipation that an M&A deal will be announced or not. Specifically, if the probability that the deal will be announced is somehow correlated with *FAI*, this correlation may render unreliable estimates of the positive *FAI* effects on acquirer returns. We address this concern by including *Initial bid,* a proxy for the anticipation of merger announcements (Cai, Song, and Walkling (2011)). *Initial bid* is a binary variable that takes the value of 1 if no other bids have occurred in the bidder's industry over the prior 365 days. Controlling for initial bids does not alter the positive *FAI* effects on acquirer returns.

[Table III goes here]

B.2. Long-term Stock Performance

The results presented in Table III reveal a positive and significant relation between CEO attractiveness and acquirer returns around M&A announcement, consistent with the Negotiating

Hypothesis. These results raise a follow-up question: How persistent are the CEO attractiveness effects following the merger announcements? If more attractive CEOs indeed negotiate better M&A deals, we would expect the CEO attractiveness effects to persist for even longer periods, as existing studies document significant long-term performance impacts of M&As.[24] To see this, we separate the sample firms into two portfolios—high and low *FAI* portfolios—based on a median split of CEOs' *FAI*. We then compare the post-merger long-run stock performance of each portfolio.

Table IV reports the results. We calculate two measures of long-run stock returns for each portfolio: buy-and-hold abnormal returns (relative to size and book-to-market benchmark portfolios), and monthly (calendar-time) factor-adjusted abnormal returns. These factors include the three factors introduced by Fama and French (1992) and the momentum factor introduced by Carhart (1997). We find that, following the M&A announcements, acquiring firms in the high *FAI* portfolio outperform those in the low *FAI* portfolio by 4.7% in buy-and-hold abnormal returns in the six-month window, and up to 15.5% in the two-year window. This difference is statistically significant at the 10% level or lower. In terms of calendar-time abnormal returns, the high *FAI* portfolio outperforms the low *FAI* group by 1% in monthly alphas (or 12% in annual abnormal returns) in the six months following the M&A announcements, and by 0.7% (or 8.4% in annual abnormal returns) within twelve months. Overall, the findings suggest that more attractive CEOs create greater long-term values for shareholders through the negotiating channel.

[Table IV goes here]

---

[24] In unreported tests, we do not find significant long-run effects of CEO attractiveness following their job announcements as well as news events (to be discussed in Section III.C).

C. CEO Attractiveness and Stock Returns around News Events

C.1. Television News versus Non-television News

This subsection explores whether more attractive CEOs improve shareholder value through public appearance (Hypothesis 3: The Visibility Hypothesis). The first test examines whether CEO attractiveness positively affects the stock returns around television news broadcasts with his or her presence or images. The nature of the news samples allows us to find a control group to mitigate potential endogeneity issues. In particular, we form a matched sample of non-television news events, i.e., news articles that contain information on the same group of CEOs but without any image of these CEOs. Comparing the effects of CEO attractiveness on stock returns surrounding the television news events to those around the matched non-television event dates nets out the effects of unobservable firm and\or CEO characteristics. In addition, if the visibility of more attractive CEOs enhances shareholder value through the *visibility* channel, we would expect *FAI* to have an insignificant effect on stock returns around the matched non-television news days.

Panel A of Table V presents the OLS regressions of abnormal stock returns surrounding the news announcements on *Log(FAI)* for multiple event windows (Models (1) to (10)). The relation between stock returns and *Log(FAI)* is positive and statistically significant on both the television news day (0,0) and the (-1,1) event window surrounding the television news event (Models (1) and (2)), while the relation between stock returns and *Log(FAI)* on the print news days or on the (-1,1) event window around the print news event is insignificant (Models (6) and (7)).[25] In Panel A (Table V) we also examine the effects of CEO attractiveness on television news days using longer event windows. We don't find *FAI* to significantly affect stock returns on

---

[25] We use a Wald test and find statistical significance of the difference between the marginal effect of *Log(FAI)* on television and print news days; however, Wald test fails to show statistical significance of the difference between the marginal effect of *Log(FAI)* in Models (2) and (7) of Table V, respectively.

these longer event windows. [26] Overall, the evidence suggests that shareholders respond positively to viewing more attractive CEOs, consistent with more attractive CEOs improving shareholder value through the *visibility* channel.

In models (1) to (10) we include the same control variables that proxy for firm and CEO characteristics as in the previous analyses. In addition, it is well documented that news content is an important factor determining the effects of media on stock returns. To control for the effects of news content on stock returns around these selected CEO news events, we carefully review and classify the content of each news event into 12 categories as mentioned in Section II.B.4. The effects of *FAI* on stock returns around CEO television news days remain positive and significant after controlling for news contents.

Finally, it is likely that the selection of television news against news articles may invite bias toward certain firm characteristics and/or news content. In Model (11) of Panel A (Table V), we report the results of a probit regression in which the dependent variable is equal to one if the CEO news event appears on television and zero if it appears on news articles. We don't find the same set of explanatory variables to significantly affect the selection of CEO news into television as opposed to print articles, thus reducing concerns surrounding this selection bias. We provide further robustness tests for this selection bias in Section IV.D.

C.2. Earnings Announcement News with and without CEO Images

In Section III.C.1 we find positive and significant effects of CEO attractiveness on stock returns surrounding the television news events, but insignificant results around a matched sample of non-television news dates. Two potential concerns arise with these findings. First, the positive

---

[26] To ensure that our facial attractiveness measure does not represent an unobservable, time-invariant factor that may drive the above result, in an unreported analysis we also investigate the effect of *Log(FAI)* on the abnormal returns in the (-1,-1) event window. *FAI* does not significantly affect the stock returns on the date before both the television and print news events, thus greatly reducing the possibility that CEO attractiveness might proxy for some unobservable factor(s).

FAI effects could be driven by the visual correlates of CEO appearance on television, such as the CEO's body language and the eloquence of his or her speaking. Second, it is likely that the magnitude of news that appear on television is very different from the magnitude of news that appears on the print news media, potentially due to the higher marginal costs of producing and airing news on television. In this case, the positive *FAI* effects on television could simply reflect the magnitude of the news instead of CEO appearance. The comparison of the CEO attractiveness effects between television news and print news could thus be mis-specified.

To address these two concerns, we re-examine the effects of *FAI* on stock returns based on the print news on the earnings announcement dates. Specifically, we compare the difference in stock price reactions between earnings announcement news with CEO image and a control sample of earnings announcement news without the CEO's picture, where the control sample is matched to the treatment sample based on the same quarter in the prior year. By restricting the samples to print news with and without CEO images, we are able to limit the confounding effects of visual correlates that may drive the positive *FAI* effects on stock returns. Further, by focusing only on the earnings announcement dates, we examine the CEO attractiveness effects based on a unique news type—earnings announcement, and control for the magnitude of the news using standard measures of unexpected earnings, thus addressing any concerns that the treatment and control samples are very different in both the content and the magnitude of the news. We follow Mayew and Venkatachalam (2012) and calculate unexpected earnings (*UE*) as the difference between actual I/B/E/S earnings per share and I/B/E/S analyst summary consensus median earnings per share scaled by price per share two days before the announcement.

Panel B of Table V reports OLS regressions of abnormal stock returns surrounding the earnings announcements on *Log(FAI)* for multiple event windows (Models (1) to (10)). The

relation between stock returns and *Log(FAI)* continues to be positive and statistically significant in the event windows (-1,1), (-2,2), and (-3,3) surrounding the earnings announcement dates with CEO image, while the relation between stock returns and *Log(FAI)* on earnings announcement dates without CEO pictures remains insignificant across all event windows.[27] In Panel B (Table V) we also include the same control variables as in the previous analyses and unexpected earnings (*UE*) to control for the magnitude of the earnings news. Overall, the results in Panel B (Table V) further support the positive and significant effects of *FAI* on shareholder value through the visibility channel.[28]

Finally, in Model (11) of Panel B (Table V), we also report the results of a probit regression in which the dependent variable takes the value of one if the news event is earnings announcement with a CEO image and zero if the news event is earnings announcement without the CEO's image. Again, the explanatory variables do not significantly affect the selection of CEO news into earnings announcement news with and without CEO pictures, reducing concerns surrounding this selection bias.

[Table V goes here]

D. Alternative Explanations

The results discussed in Section III.B support the *negotiating* channel, i.e., more attractive CEOs charm negotiators of the target firms into receiving more favorable terms (the perception story) and/or possess better negotiating ability (characteristics revelation story), thus

---

[27] As in Panel A of Table V, we use the Wald test and find a statistically significant difference in the marginal effect of *Log(FAI)* on earnings announcement news with and without CEO image in the (-1,1), (-2,2) and (-3,3) event windows.

[28] For comparison purposes, in an unreported test we find that a one-standard deviation increase in *FAI* results in 2.08% increase in stock returns in the (-2,2) event window surrounding the earnings announcement with CEO photos. The magnitude of the *FAI* effect in this setting appears economically significant compared to the existing literature on earnings announcements. For example, Mayew and Venkatachalam (2012) report that a one-standard derivation increase in the CEO affective states measure relates to 0.40% increase in stock returns using a (0,1) event window.

enhancing acquirer returns around and after mergers announcements. On the other hand, as discussed in Section I.C, the lack of valid control samples leaves room for alternative explanations unrelated to the *negotiating* channel. For example, more attractive CEOs may possess certain characteristics and abilities to better source the deal, or they are better (worse) at keeping good (bad) mergers a secret. These alternative explanations point to a CEO's intelligence, ability or behavioral traits revealed through his or her attractiveness. Although we control for various CEO characteristics variables (such as education (*Ivy* and *MBA*) and *fWHR*), we recognize that these variables might not be perfect measures of the CEO's specific talents or abilities in these alternative explanations. We therefore do not claim that the *negotiating* channel provides the only explanation for the attractiveness effects on acquirer returns.

For results discussed in Section III.C, tests on the *visibility* channel are consistent with the perception story, i.e., the visibility of more attractive CEOs in the news leads to better stock returns. An alternative explanation consistent with the perception story is that the visibility of more attractive CEOs may remind investors of CEOs' characteristics in addition to attractiveness. For example, investors may *perceive* more attractive CEOs to be more competent or trustworthy and therefore buy the stocks. To control for the effects of other perceived qualities of CEOs on stock returns, in unreported results we include perceived competence, trustworthiness and baby-facedness of CEOs in the regressions analyses reported in Table V. We measure perceived competence, trustworthiness and baby-facedness of CEOs through the survey ratings from the Amazon's Mechanical Turk (Mturk) service, which we describe in detail in Section IV.A. The results do not materially change after controlling for these perceived qualities of CEOs.[29]

---

[29] We also include perceived competence, trustworthiness, and baby-facedness in Table II and III; the results remain practically unaffected.

IV. Robustness Checks

A. Validity of the Facial Attractiveness Index

One potential concern with the main results reported in Section III is whether the Facial Attractiveness Index is a valid measure of CEO attractiveness. Two possibilities follow this concern. First, potential measurement errors in the process of obtaining this measure from Anaface.com and/or CEO photo characteristics could keep us from obtaining reliable estimates. As we mention in Section II.A, we address these issues by (1) multi-sampling the facial geometry scores of each CEO six times and taking the average of the sampled scores as our measure of Facial Attractiveness Index, and (2) controlling for CEO facial traits and photo characteristics that might impact Facial Attractiveness Index in a non-random fashion.

Second, even in the absence of measurement errors, there might not be sufficient evidence that Facial Attractiveness Index is a valid measure of CEO attractiveness. For this issue, it is worth noting, however, that a large psychology literature finds geometry-based facial features, including symmetry, averageness, and golden ratios, to be related to attractiveness. Some of the studies along this line of research obtain these geometry-based facial features using computerized programs that appear to be very similar to those used by Anaface.com. For example, both Rhodes and Tremewan (1996) and Schmid, Marx, and Samal (2008) locate 169 and 29 facial landmarks, respectively, to obtain geometry-based facial features; their findings confirm a positive relation between facial geometry and attractiveness.

To further confirm the validity of Facial Attractiveness Index as a measure of CEO attractiveness, we analyze the relation between Facial Attractiveness Index and a survey-based measure of attractiveness. Specifically, we follow Duarte, Siegel, and Young (2012) and conduct surveys of CEO attractiveness through Amazon's Mechanical Turk (Mturk) service. Mturk is an

online crowdsourcing platform through which qualified individual "workers" provide highly standardized tasks such as rating image-related subjects. We upload our sample of CEO photos to Mechanical Turk and ask ten workers (as survey respondents) to rate the attractiveness of each CEO on a scale of a one (the least attractive) to five (the most attractive). We then take the average of the ten scores received from these workers as our survey-based measure of attractiveness. Following Duarte, Siegel, and Young (2012) and Graham, Harvey, and Puri (2014), we repeat the same procedure and ask workers to rate other appearance-based qualities of CEO, such as competence, trustworthiness, and baby-facedness. These survey-based measures are the "perceived" measures as discussed in Section III.D.

To ensure the quality of these survey-based measures, we require workers (1) to reside in the U.S. and (2) to receive 99 percent or higher customer satisfaction when performing prior Mturk services. Further, to assess the consistency of the workers' ratings, we upload pictures of "trial" subjects unrelated to our CEO sample and ask these workers to rate how attractive these trial subjects are. Subjects who resemble fashion models and/or movie stars receive higher ratings of attractiveness than those with average looks, adding to the consistency of these survey-based measures.

Panel A of Table VI reports the summary statistics of these survey-based measures. On average, our sample of CEOs receives 2.43 of attractiveness rating (on the scale of 5). In Panel B (Table VI), Facial Attractiveness Index is positively and significantly correlated with the survey-based attractiveness measure in the univariate test (Model (1)). The positive and significant correlation between the two measures remains after we control for factors that may affect Facial Attractiveness Index, such as firm size, CEO gender, age, tenure, race, as well as their facial

traits and picture characteristics (Model (5)). Overall, the results align both measures of attractiveness and add to the validity of the Facial Attractiveness Index.

One question remains as to the extent to which Facial Attractiveness Index and survey-based attractiveness measures differ, despite that they show positive correlations in Panel B of Table VI. One well discussed possibility in the biology and psychology literature is that the survey-based measure, which gauges perceived attractiveness, could be driven by nature and/or cultural factors (nurture), whereas facial geometry-based measures, which are based on biological features, could be primarily driven by nature. In this paper, we take no stance as to what drives the difference between the two measures, nor do we claim which measure is better. Instead, in addition to the difference in sample and research design, studies using different attractiveness measures may yield different findings due to the distinct sources of attractiveness.

We further examine the correlation between Facial Attractiveness Index and other perceived CEO qualities, including *Competence*, *Trustworthiness*, and *Baby-facedness*. Facial Attractiveness Index does not appear to be correlated with these three measures in the univariate test (Models (2) to (4), Panel B of Table VI). After adding the same controls that may affect Facial Attractiveness Index as we did in Model (5), *Competence* and *Baby-facedness* appear to be positively correlated with Facial Attractiveness Index at the ten percent significance level (Models (6) and (8), Panel B of Table VI). An unreported test suggests that survey-based *Attractiveness* is correlated with *Competence* (the correlation coefficient is 37%). Therefore, the positive and (marginally) significant coefficients of *Competence* on Facial Attractiveness Index could be driven by this correlation. We thus obtain residualized *Competence*, *Trustworthiness* and *Baby-facedness*, which are not correlated with *Attractiveness*. In Models (9) to (11) (Panel B, Table VI); the residualized measures (*Res(Competence)*, *Res(Trustworthiness)*, and *Res(Baby-*

facedness), respectively) do not significantly explain Facial Attractiveness Index, whereas *Attractiveness* continues to have a positive and significant correlation with Facial Attractiveness Index.

Finally, to ensure that the Facial Attractiveness Index and the survey-based attractiveness are unaffected by individuals who rate or take the measurements, we follow the existing literature testing the inter-rater reliability and compute Cronbach's (1951) Alpha for each measure. Intuitively, Cronbach's Alpha measures the consistency among each rater's rankings of CEO attractiveness. In an unreported result, we find that the Cronbach's Alpha is 0.915 for *FAI* and 0.791 for *Attractiveness*, which are above the threshold level of 0.70 and thus are considered to attain inter-rater reliability.

[Table VI goes here]

B. Survey-based Attractiveness and Shareholder Value

In Section IV.A we show a positive and significant correlation between Facial Attractiveness Index and the survey-based attractiveness measure of CEOs, providing evidence of the validity of the Facial Attractiveness Index. In this subsection, we further examine whether more attractive CEOs are associated with better shareholder value, where attractiveness is measured based on the survey-based attractiveness. We propose a predicted survey-based attractiveness (*P(Attractiveness)*), i.e., the predicted value of the survey-based CEO attractiveness measure (as described in Section IV.A) based on observable facial traits of the CEOs appearing on the photos, including *FAI*, *fWHR*, *Smiling*, *Bald*, *Glasses*, *Professional*, *Color Photo*, and *Nonwhite*. This predicted survey-based attractiveness gauges respondents' subjective ratings based on observable facial traits of a CEO and excludes other factors that might affect the respondents' ratings. It is worth noting that, by construction, this measure still

originates from the respondents' ratings and is thus different from the Facial Attractiveness Index in nature.

Table VII presents the results. For conciseness, we only report the coefficients and *t-statistics* of *P(Attractiveness)*. *P(Attractiveness)* has a positive and significant impact on stock returns surrounding CEO job announcements (Panel A), mergers announcement (Panel B), television news events (Panel C), and earnings announcement events with CEO photos (Panel E), consistent with the previous findings using Facial Attractiveness Index as the measure of CEO attractiveness. Further, *P(Attractiveness)* does not significant affect stock returns surrounding print news events (Panel D) and earnings announcement events without CEO photos (Panel F). Overall, these results add to the robustness of the findings that more attractive CEOs are associated with better shareholder value.

[Table VII goes here]

C. Tests for Selection Bias in the Absence of Control Samples

Sections III.A and III.B provide evidence that CEO appearance is positively related to stock returns in the context of CEO job and M&A announcements. However, these events are firms' voluntary choices and lack observable control samples. Therefore, it is likely that these events are initiated when firms possess information not fully known to markets, and that the unobservable factors that determine the decisions to replace a CEO and/or undertake an M&A are also correlated with *FAI*. Consequently, the OLS model used in the prior analysis to estimate the relation between announcement returns and *FAI* may result in a potential selection bias (Prabhala (1997)). To address this concern, we follow Eckbo, Maksimovic, and Williams (1990) and estimate the following conditional model using maximum likelihood estimation (MLE) for both the CEO job announcement and M&A announcement tests we report in Tables II and III:

36

$$E[CAR_i|CAR_i = x_i\gamma_i + \eta_i > 0] = x_i\gamma_i + \omega \frac{\phi(x_i\gamma_i/\omega)}{\theta(x_i\gamma_i/\omega)} \qquad (1)$$

where CAR_i is the cumulative abnormal return; x_i is the vector of regressors for manager i, including FAI; γ_i is the vector of coefficients; η_i is assumed to be normally distributed with variance ω^2; and ϕ and θ represent the normal probability density function and cumulative density function, respectively.

Intuitively, (1) accounts for private information related to the decision to replace a CEO and the acquisition announcement. In an unreported analysis (available upon request), after addressing this selection bias in the absence of control events, the coefficients of FAI estimated from (1) remain positive and significant; further, both the economic and statistical significance do not materially change. These results further support our main findings.

D. Tests Controlling for Selection Bias in the Television News Events

In Section III.C.1, we compare the difference in the effects of FAI on stock returns between CEOs' television news events versus a matched sample of print news events. Doing so enables us to net out the effects of any unobservable firm and CEO characteristics, assuming that that these unobservable firm and CEO characteristics have the same effects across the two samples. [30] The assumption appears to be plausible, given that we carefully select the matched sample of print news and that all the firm and CEO characteristics do not significantly affect the selection of news into television as opposed to print articles (Model (11) of Panel A, Table V). On the other hand, if we relax this assumption, we need to control for the potential selection bias, in which the effects of FAI on stock returns might be correlated with unobservable factors that determine whether a CEO is selected into television or print news events.

---

[30] In this test, we also assume that these unobservable firm and CEO characteristics remain time invariant within ten days surrounding these events.

To mitigate this potential selection bias, we re-estimate the effects of *FAI* on stock returns during television and print news events using Heckman's (1979) procedure. We estimate the outcome and the selection models by maximum likelihood estimation (MLE).[31] In the selection equation, we consider major sports event days as a source of exogenous variation.[32] It is also unlikely that an individual firm's stock returns are driven by contemporaneous sports news events. We hypothesize that (1) the arrival of major sports events affects the chances of CEOs appearing on both the television and print news, but that (2) CEOs are more likely to appear on CNBC in the days leading up to major sports events than appear in print news events. These hypotheses seem plausible, as both newspapers and CNBC cover news on major sports events; however, for the majority of print news outlets, the business news sections are more likely to compete for space and prominence with sports news sections during major sports events, while business television stations such as CNBC mainly focus on business news and may put less weight on the major sports events. Consistent with these conjectures, in unreported results we find indeed that the CEO is less likely to be selected into print news events on the major sports events days.

[Table VIII goes here]

Table VIII reports the results for the estimated outcome equation of abnormal returns on television and print news days on *FAI* and other controls. More important, the coefficient on *FAI* remains significant and positive at the 1% level on CEO television news days, after controlling for the selection bias using the major sports events as a source of the exogenous shock. Further,

---

[31] Using the two-step procedure does not affect the results in a meaningful way.
[32] We include the following major sports events: National Football League's (NFL) playoffs, Super Bowl, National Basketball Association's (NBA) playoffs and finals, National Hockey League's (NHL) playoffs and finals, American League Championship Series (ALCS), National League Championship Series (NLCS), World Series (WS), the 2008 and 2012 Summer Olympics, and the 2010 Winter Olympics. If an event occurs on a non-trading day, we assign it to the first trading day prior to the event.

the coefficient on *FAI* remains insignificant on print news days. We also perform a test on the difference between the coefficients on *FAI* in the television and in print news events, and find that the difference is significant at the 1% level. Overall the results further support a positive effect of *FAI* on shareholder value through the *visibility* channel.

V. Conclusion

In this paper, we investigate whether and how CEO appearance matters for shareholder value. We calculate the Facial Attractiveness Index of CEOs based on their facial geometry. We first document the existence of the CEO attractiveness effects on shareholder value by showing that more attractive CEOs are associated with better stock returns around their job announcement dates.

We further hypothesize and test two channels through which more attractive CEOs enhance shareholder value: negotiating and visibility. To test the negotiating channel, we examine the stock price reactions around M&A announcement dates and find a positive and significant CEO attractiveness effect on acquirer returns. This positive relation persists beyond one year following the mergers announcement dates. We test the visibility channel by first investigating the stock price reaction around CEO television news event dates and find that more attractive CEOs are associated with better stock returns surrounding CEO-related television news days. However, we find no significant relation between CEO attractiveness and stock returns around a matched sample of non-television news events. In a second test, we continue to find the positive and significant CEO attractiveness effects on stock returns surrounding earnings announcement dates with CEO image, but insignificant effects around earnings announcement dates without the CEO's image. These findings mitigate the endogeneity concerns when

interpreting our findings. Overall, our results suggest that more attractive CEOs create value for shareholders through better negotiating prowess and visibility.

The findings of this paper shed light on how the appearance of corporate insiders affects corporate decisions and outcomes. It is well established in the asset pricing literature that investors' decisions are likely based on initial, possibly unconscious, impressions and perceptions. Along this line, several studies find evidence of how a "first impression effect" of appearance impacts personal financing. However, less is known about how the first impression effect of appearance of corporate insiders would affect the perceptions and thus decisions of corporate stakeholders. More research is called for to further assess these possibilities.

References

Adams, G.R., 1977. Physical attractiveness, personality, and social reactions to peer pressure. The Journal of Psychology 96, 287–296.

Addoum, J., Korniotis, G., Kumar A., 2013. Stature, obesity, and portfolio choice. Unpublished working paper. University of Miami.

Atalay, B., 2004. Math and the Mona Lisa: The art and science of Leonardo da Vinci. Smithsonian Institution Press, Washington D.C.

Berger, J., Cohen, B., Zelditch, M., 1972. Status characteristics and social interaction. American Sociological Review 37 (3) (June 1), 241–255.

Bertrand, M., Schoar, A., 2003. Managing with style: the effect of Managers on Firm Policies. Quarterly Journal of Economics 118(4) 1169–1208.

Betton, S., Eckbo, B., Thorburn, K., 2008. Corporate takeovers. In: Handbook of corporate finance: empirical corporate finance. Elsevier/North-Holland Handbook of Finance Series.

Cai, J., M.H. Song, M., Walkling, R., 2011. Anticipation, acquisitions, and bidder returns: industry shocks and the transfer of information across rivals. Review of Financial Studies 24, 2242 –2285.

Campbell, C., Gallmeyer, M., Johnson, S., Rutherford, J., Stanley, B., 2011, CEO optimism and forced turnover. Journal of Financial Economics 101, 695–712.

Campbell, C., Graham, J., Jolibert, A., Meissner, H., 1988. Marketing negotiations in France, Germany, the United Kingdom, and the United States. Journal of Marketing 52, 49–62.

Carhart, M., 1997. On persistence in mutual fund performance. The Journal of Finance 52, 57–82.

Carré, J., McCormick, C., 2008. In your face: facial metrics predict aggressive behaviour in the laboratory and in varsity and professional hockey players. Proceedings of the Royal Society of London B: Biological Sciences 275:2651–56.

Carré, J. M., McCormick, C., Mondloch, C., 2009. Facial structure is a reliable cue of aggressive behavior. Psychological Science 20:1194–98.

Cash, T., Kehr, J., Polyson, J., Freeman, V., 1977. Role of physical attractiveness in peer attribution of psychological disturbance. Journal of Consulting and Clinical Psychology 45, 987.

Chaiken, S., 1979. Communicator physical attractiveness and persuasion. Journal of Personality and Social Psychology 37, 1387.

Chaiken, S., 1986. Physical appearance and social influence. In: Physical Appearance, Stigma, and Social Behavior. The Ontario Symposium, pp. 143–177.

Chen, H., Hwang, B., Liu, B., 2015. The economic consequences of having 'social' executives. Unpublished working paper. City University of Hong Kong.

Coles, J., Li, F., 2012, "An empirical assessment of empirical corporate finance." Unpublished working paper. Arizona State University

Cook, D., Mobbs, S., 2014, CEO selection and executive appearance, Unpublished working paper, University of Alabama.

Cronbach L., 1951, Coefficient alpha and the internal structure of tests, Psychometrika, 16 297-334.

Custódio, C., Ferreira, M., Matos, P. 2013. Generalists versus specialists: Lifetime work experience and chief executive officer pay. Journal of Financial Economics 108(2), 471–492.

Cunningham, M., 1986. Measuring the physical in physical attractiveness: quasi-experiments on the sociobiology of female facial beauty. Journal of Personality and Social Psychology 50, 925.

Cunningham, M., Barbee, A., Pike, C., 1990. What do women want? facialmetric assessment of multiple motives in the perception of male facial physical attractiveness. Journal of Personality and Social Psychology 59, 61.

Cunningham, M., Roberts, A., Barbee, A., Druen, P., Wu, C., 1995. Their ideas of beauty are, on the whole, the same as ours: consistency and variability in the cross-cultural perception of female physical attractiveness. Journal of Personality and Social Psychology 68, 261.

Dougal, C., Engelberg, J., García, D., Parsons, C., 2012. Journalists and the stock market. Review of Financial Studies 25 (3), 639–679.

Duarte, J., Siegel, S., Young, L., 2012. Trust and credit: the role of appearance in peer-to-peer lending. Review of Financial Studies 25 (8), 2455–2484.

Eckbo, B., Maksimovic, V., Williams, J., 1990. Consistent estimation of cross-sectional models in event studies. Review of Financial Studies 3, 343–365.

Faccio, M., Marchica , M., Mura, R., 2012. CEO gender, corporate risk-taking, and the efficiency of capital allocation. Unpublished working paper. Perdue University.

Falato, A., Li, D., Milbourn, T., 2014. Which skills matter in the market for CEOs? evidence from pay for CEO credentials. Forthcoming, Management Science.

Fama, E., French, K., 1992. The cross-section of expected stock returns. The Journal of Finance 47, 427–465.

Giglio, S., Shue, K., 2014, No news is news: do markets underreact to nothing? Forthcoming, Review of Financial Studies.

Gilmore, D., Beehr, T., Love, K., 1986. Effects of applicant sex, applicant physical attractiveness, type of rater and type of job on interview decisions. Journal of Occupational Psychology 59, 103–109.

Graham, J., Harvey, C., Puri, M., 2014. A corporate beauty contest. Unpublished working paper. Duke University.

Graham, J., Harvey, C., Puri, M., 2013. Managerial attitudes and corporate actions. Journal of Financial Economics 109 (1) (July), 103–121.

Graham, J., Li, X. Qiu, J., 2012. Managerial attributes and executive compensation, Review of Financial Studies, 25(1), 144-186.

Grammer, K., Thornhill, R., 1994. Human (Homo sapiens) facial attractiveness and sexual selection: the role of symmetry and averageness. Journal of Comparative Psychology, 108(3), 233.

Hamermesh, Daniel S. and Jeff E. Biddle, 1994. "Beauty and the Labor Market." The American Economic Review 84 (5), 1174–1194.

Hamermesh, D., Abrevaya, J., 2013. Beauty is the source of happiness? The European Economic Review 64, 351–368.

Haselhuhn, M., Wong. E., 2012. Bad to the bone: facial structure predicts unethical behaviour. Proceedings of the Royal Society of London B: Biological Sciences 279:571–76.

Hatfield, E., Sprecher, S., 1986. Mirror, Mirror: The Importance of Looks in Everyday Life. SUNY Press, Albany, New York.

Heckman, J., 1979. Sample selection bias as a specification error. Econometrica 47, 153–161.

Hirshleifer, D., Low A., Teoh,S., 2012, Are overconfident CEOs better innovators?, The Journal of Finance 67, 1457–1498.

Hosoda, M., Stone-Romero, E., Coats, G., 2003. The effects of physical attractiveness on job-related outcomes: a meta-analysis of experimental studies. Personnel Psychology 56 (2), 431–462.

Jackson, L., Hunter, J., Hodge, C., 1995. "Physical attractiveness and intellectual competence: a meta-analytic review." Social Psychology Quarterly 58, 108–108.

Jia, Y., Lent, L., Zeng. Y., 2014. Masculinity, testosterone, and financial misreporting. Journal of Accounting Research 52:1195–1246.

Jones, B., Little, A., Penton-Voak, I., Tiddeman, B., Burt, D., Perrett, D., 2001. Facial symmetry and judgements of apparent health: Support for a "good genes" explanation of the attractiveness–symmetry relationship. Evolution and Human Behavior, 22(6), 417–429.

Kahle, L., Homer, P., 1985, Physical attractiveness of the celebrity endorser: A social adaption perspective, Journal of Consumer Research, 11, 954-961

Kim, Y., Kamiya, S., 2015, The testosterone of the CEO and the risk of the firm, Unpublished working paper. Nangyang Technological University.

Kanazawa, S., 2011. Intelligence and physical attractiveness. Intelligence 39, 7–14.

Kaplan, S., Klebanov, M., Sorensen, M., 2012. Which CEO characteristics and abilities matter? Journal of Finance 67 (3) (June), 973–1007.

Kennedy, J., 1990. Determinants of peer social status: contributions of physical appearance, reputation, and behavior. Journal of Youth and Adolescence 19 (3) (June 1), 233–244.

Kim, Y., Meschke, F., 2013. CEO interviews on CNBC. Unpublished working paper. SungKyunKwan University.

Langlois, J., Kalakanis, L., Rubenstein, A., Larson, A., Hallam, M., Smoot, M., 2000. Maxims of myths of beauty? a meta-analytic and theoretical review. Psychological Bulletin 126(3), 390–423.

Langlois, J., Roggman, L., 1990. Attractive faces are only average. Psychological Science, 1(2), 115–121.

Lefevre, C., Lewis, G., Perrett, D., Penke, L., 2013. Telling facial metrics: facial width is associated with testosterone levels in men. Evolution and Human Behavior 34:273–79.

Lou, Dong, 2014, Attracting Investor Attention through Advertising, Review of Financial Studies 27, 1797–1829.

Malmendier, U., Tate, G., 2005. CEO overconfidence and corporate investment. Journal of Finance 60 (6) (December), 2661–2700.

Malmendier, U., Tate, G., 2008. Who makes acquisitions? CEO overconfidence and the market's reaction. Journal of Financial Economics 89 (1), 20–43.

Malmendier, U., Tate, G., Yan, J., 2011. Overconfidence and early-life experiences: the effect of managerial traits on corporate financial policies. Journal of Finance 66 (5), 1687–1733.

Mayew, W., Venkatachalam, M., 2012, The power of voice managerial affective states and future firm performance. The Journal of Finance, 67, 1–43

Mazur, A., Mazur, J., Keating, C., 1984. Military rank attainment of a west point class: effects of cadets' physical features. American Journal of Sociology, 125–150.

Merton, R., 1987. A simple model of capital market equilibrium with incomplete information. The Journal of Finance 42 (3), 483–510.

Mobius, M,. Rosenblat, T., 2006. Why beauty matters. The American Economic Review 222–235.

Naumann, L., Vazire, S., Rentfrow, P., Gosling, S., 2009. Personality judgments based on physical appearance. Personality and Social Psychology Bulletin 35 (12), 1661–1671.

Pallett, P., Link, S., Lee, K. (2010). New "golden" ratios for facial beauty. Vision Research, 50(2), 149–154.

Pan, Y., Wang, T., Weisbach, M., 2015. Learning about CEO ability and stock return volatility. Forthcoming, Review of Financial Studies.

Pareek, A., Zuckerman, R., 2013. Trust and investment management: the effects of manager trustworthiness on hedge fund investments. Unpublished working paper. Rutgers University.

Perrett, D., Burt, D., Penton-Voak, I., Lee, K., Rowland, D., Edwards, R., 1999. Symmetry and human facial attractiveness. Evolution and Human Behavior, 20(5), 295–307.

Perrett, D. , Lee, K., Penton-Voak, I., Rowland, D., Yoshikawa, S., Burt, D., Akamatsu, S., 1998. Effects of sexual dimorphism on facial attractiveness. Nature, 394(6696), 884–887.

Perrett, D., May, K., Yoshikawa, S., 1994. Facial shape and judgements of female attractiveness. Nature, 368(6468), 239–242.

Persico, N., Postlewaite, A., Silverman, D., 2004. The effect of adolescent experience on labor market outcomes: the case of height. Journal of Political Economy 112, 1019–1053.

Prabhala, N., 1997. Conditional methods in event studies and an equilibrium justification for standard event-study procedures. Review of Financial Studies 10, 1–38.

Price, M., 2008. Fund-raising success and a solicitor's beauty capital: do blondes raise more funds? Economics Letters 100, 351–354.

Rasband, W., 2012. ImageJ. [Computer software] retrieved from http://imagej.nih.gov/ij/index.html.

Ravina, E., 2012. Love & loans: the effect of beauty and personal characteristics in credit markets. Unpublished working paper. Columbia University.

Rhodes, G., Tremewan, T., 1996, Averageness, exaggeration, and facial attractiveness. Psychological Science, 105–110.

Rhodes, G., Proffitt, F., Grady, J., Sumich, A., 1998. Facial symmetry and the perception of beauty. Psychonomic Bulletin & Review 5, 659–669.

Rhodes, G., Sumich, A., Byatt, G., 1999. Are average facial configurations attractive only because of their symmetry? Psychological Science 10, 52–58.

Rikowski, A., Grammer, K., 1999. Human body odour, symmetry and attractiveness. Proceedings of the Royal Society of London. Series B: Biological Sciences, 266(1422), 869–874.

Rosenblatt, T., 2008. The beauty premium: physical attractiveness and gender in dictator games. Negotiation Journal 24 (4), 465–481.

Rule, N., Ambady, N., 2008. The face of success: inferences from chief executive officers' appearance predict company profits. Psychological Science 19 (2), 109–111.

Rule, N., Ambady, N., 2009. She's Got the Look: Inferences from Female Chief Executive Officers' Faces Predict Their Success. Sex Roles 61:644–52.

Schmid, K., Marx, D., Samal, A., 2008. Computation of a face attractiveness index based on neoclassical canons, symmetry, and golden ratios. Pattern Recognition 41 (8), 2710–2717.

Shi, J., Samal, A., Marx, D., 2006. How effective are landmarks and their geometry for face recognition? Computer Vision and Image Understanding, 102(2), 117–133.

Tetlock, P., 2007. Giving content to investor sentiment: the role of media in the stock market. The Journal of Finance 62 (3), 1139–1168.

Todorov, A., Mandisodza, A., Goren, A., Hall, C., 2005. Inferences of competence from faces predict election outcomes. Science 308 (5728), 1623–1626.

Valentine, K., Li, N., Penke, L., Perrett, D., 2014. Judging a man by the width of his face the role of facial ratios and dominance in mate choice at speed-dating events. Psychological Science 25:806–11.

Webster, M., Driskell, J., 1978. Status generalization: a review and some new data. American Sociological Review, 220–236.

Wong, E., Ormiston, M., Haselhuhn. M., 2011. A face only an investor could love CEOs' facial structure predicts their firms' financial performance. Psychological Science 22:1478–83.

Figure 1

This figure presents a screen shot of Anaface.com. The photograph is the default image provided by the website.
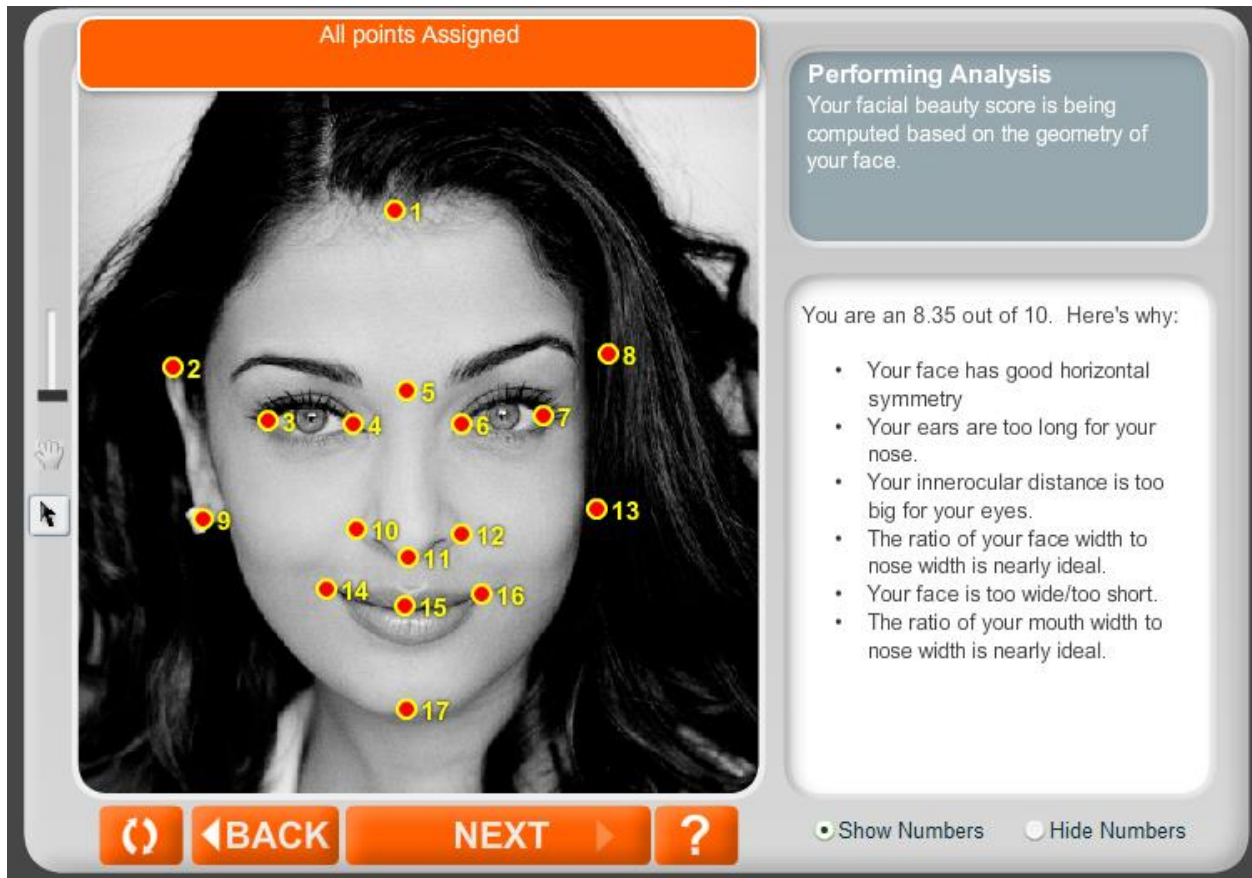
Appendix: Variable Definitions

In this appendix we report the main variables used in the paper. The first column presents the variable name. The second column provides a brief description of the variable, along with any *Compustat*, *Execucomp*, or *CRSP* data items used to construct the variable. The final column reports the data source(s) used to compute the variable. *SDC* in the final column represents the *Securities Data Corporation*.

Variable	Description	Source
FAI	Facial attractiveness index; the measure of a CEO's facial geometry.	Anaface.com
fWHR	Facial width-to-height ratio; the distance between the two zygions relative to the distance between the upper lip and the highest point of the eyelid.	*ImageJ*
P(Attractiveness)	Predicted survey-based attractiveness; we regress the survey-based attractiveness measure on the following variables: *FAI*, *fWHR*, CEO race, whether the CEO smiles, baldness, whether the CEO wears glasses, whether the selected picture is in color, whether the selected picture is a professional photo. We then obtain the predicted value for each CEO.	*Amazon Mturk; Google Image search*
Size	Market value of equity (in millions; CRSP Variable: ABS(PRC*SHROUT)/1000).	*CRSP*
Leverage	The ratio of total liabilities (Compustat Variable: LT) to total assets (Compustat Variable: AT).	*Compustat*
MTB	Market value of equity to book value of equity (Compustat Variable: CSHO*PRCC_F/(AT-LT)).	*Compustat*
Stock Return	The firm's annual stock return measured over the previous year.	*CRSP*
Female	A binary variable equal to one if the CEO is female (Execucomp Variable: GENDER).	*Execucomp*
Age	The age of the CEO in years (Execucomp Variable: AGE).	*Execucomp*
Tenure	The CEO's tenure at a given company, measured in months.	*Execucomp*
OC67	CEO overconfidence measure by Hirshleifer, Low, and Teoh (2012); a dummy variable =1 if the CEO has options more than 67% in-the-money at least two times during his or her tenure, and zero otherwise.	*Execucomp*
Ivy	An indicator variable =1 if the CEO attended Ivy league schools, i.e., Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, University of Pennsylvania, or Yale University.	*Proquest*
MBA	An indicator variable if the CEO earned a Masters of Business Administration degree.	*Proquest*
Attractiveness	Perceived attractiveness, measured as the average ranking of 10 survey respondents.	*Amazon Mturk*
Competence	Perceived competence, measured as the average ranking of 10 survey respondents.	*Amazon Mturk*
Trustworthiness	Perceived trustworthiness, measured as the average ranking of 10 survey respondents.	*Amazon Mturk*

Appendix – Continued

Variable	Description	Source
Baby-facedness	Perceived baby-facedness, measured as the average ranking of 10 survey respondents.	*Amazon Mturk*
Smiling	An indicator variable =1 if the CEO smiles in the photo.	*Google Image search*
Bald	Perceived baldness of the CEO measured from the average ranking of 10 survey respondents.	*Amazon Mturk*
Glasses	An indicator variable =1 if the CEO is wearing glasses in the photo.	*Google Image search*
Professional	An indicator variable =1 if the photo appears to be of professional quality.	*Google Image search*
Color photo	An indicator variable =1 if the photo is in color.	*Google Image search*
Nonwhite	An indicator variable =1 if the CEO's race is not Caucasian.	*Google Image search*
UE	Unexpected earnings; the absolute value of (median EPS estimate - actual EPS)/stock price two days before the EPS announcement date.	*I/B/E/S*
Volatility	Annual stock return volatility.	*CRSP*
Forced	Indicator variable =1 if the CEO's predecessor was forced out (e.g., the news article states that the CEO was forced out or the CEO was under 60 years old and did not take another position either inside or outside the company).	*Proquest*
Internal	Indicator variable =1 if the CEO was an employee of the company for at least one year prior to the appointment as CEO.	*Proquest*
Raided	Indicator variable =1 if the CEO was an employee of another public company within one year of appointment as CEO.	*Proquest*
Marathon	Indicator variable =1 if the CEO's predecessor's retirement date was announced before the current CEO's job announcement date or the CEO's predecessor was an interim CEO.	*Proquest*
Transaction value	The ratio of the M&A transaction value to the bidder's market value of equity.	*SDC*
Public	An indicator variable =1 if the target has a ticker on SDC or the target is in the Compustat file in the year prior to acquisition.	*SDC*
Initial bid	An indicator variable =1 if there have been no other bids in the bidder's industry for the past year.	*SDC*
News type dummies	Indicator variables that account for the type of news story for each television and print news event. We classify the type of news into the following categories: Investment news, M&A news, earnings news, financial policy news, personnel news, legal news, company news, product news, political news, industry news, international news, and other news.	*Proquest*

Table I. Summary statistics

Table I presents summary statistics for each sample used in the paper. Panel A provides summary statistics of the main sample of the 667 CEO observations (Panel A1) as well as samples we use in testing each hypothesis (Panel A2). Panel B presents OLS regressions of *Log(FAI)* on all firm, CEO, and event-specific characteristics for each sample. *t-statistics* are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

Panel A. Descriptive Statistics
Panel A1. Descriptive Statistics of the Main Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sample Period 2000 to 2012								
	N	Mean	SD	Min	Q1	Median	Q3	Max
FAI	667	7.251	0.692	4.452	6.825	7.355	7.730	8.630
Log(FAI)	667	1.976	0.100	1.493	1.921	1.995	2.045	2.155
fWHR	667	2.182	0.171	1.696	2.071	2.182	2.303	2.743
P(Attractiveness)	667	2.433	0.305	1.454	2.221	2.488	2.679	2.937
Size ($ Mil)	667	26,854	57,431	231	4,409	8,491	21,025	626,550
MTB	667	4.651	10.808	-56.953	1.969	3.239	5.300	231.438
Stock return	667	0.198	0.602	-0.972	-0.117	0.104	0.402	7.952
Leverage	667	0.554	0.203	0.043	0.427	0.561	0.674	1.581
Female	667	0.025	0.158	0	0	0	0	1
Age	667	53	7	36	49	53	58	77
Tenure (Months)	667	108	80	1	55	89	138	621
OC67	667	0.046	0.211	0	0	0	0	1
Ivy	667	0.225	0.418	0	0	0	0	1
MBA	667	0.355	0.479	0	0	0	1	1
Smiling	667	0.717	0.451	0	0	1	1	1
Bald	667	2.328	1.077	1	1	2	3	5
Glasses	667	0.261	0.439	0	0	0	1	1
Professional	667	0.922	0.268	0	1	1	1	1
Color photo	667	0.930	0.256	0	1	1	1	1
Nonwhite	667	0.040	0.197	0	0	0	0	1
N(Firms)	359							
N(CEOs)	667							

Table I. Summary Statistics (Cont.)

Panel A2. Descriptive Statistics of Other Samples

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CEO Job Announcement		M&A		TV		Print		Earnings W/ Photo		Earnings W/O Photo	
Sample Period	1985 to 2012		1985 to 2012		2008 to 2012				2000 to 2012			
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Log(FAI)	1.978	1.997	1.969	1.984	1.965	1.946	1.981	2.010	1.976	2.001	1.971	1.999
FAI	7.261	7.364	7.203	7.277	7.171	7.003	7.290	7.465	7.249	7.397	7.217	7.383
fWHR	2.185	2.191	2.173	2.180	2.190	2.235	2.198	2.250	2.158	2.160	2.161	2.163
P(Attractiveness)	2.455	2.510	2.369	2.411	2.588	2.678	2.837	2.779	2.596	2.660	2.573	2.634
Size ($ Mil)	25,519	8,490	16,241	5,209	42,023	18,583	50,080	24,603	49,681	21,694	50,847	22,191
MTB	4.706	3.035	4.014	2.582	2.293	2.272	3.595	2.920	5.381	2.771	3.616	3.071
Stock return	0.116	0.065	0.317	0.220	0.166	0.124	0.135	0.099	0.095	0.074	0.200	0.120
Leverage	0.562	0.565	0.541	0.552	0.569	0.571	0.577	0.597	0.609	0.614	0.608	0.612
Female	0.033	0.000	0.019	0.000	0.037	0.000	0.066	0.000	0.057	0.000	0.066	0.000
Age	51	51	53	53	56	54	54	54	57	56	56	55
Tenure (Months)	90	82	175	148	148	113	117	100	129	104	139	113
CAR(-2,2)	0.007	0.002	-0.003	-0.002	0.002	0.000	0.000	0.001	-0.001	0.004	0.003	0.002
OC67	0.037	0.000	0.093	0.000	0.086	0.000	0.075	0.000	0.057	0.000	0.066	0.000
Ivy	0.212	0.000	0.247	0.000	0.286	0.000	0.322	0.000	0.262	0.000	0.264	0.000
MBA	0.387	0.000	0.338	0.000	0.288	0.000	0.341	0.000	0.361	0.000	0.349	0.000
Smiling	0.718	1.000	0.750	1.000	0.824	1.000	0.700	1.000	0.648	1.000	0.613	1.000
Bald	2.306	2.000	2.276	2.000	2.153	1.800	2.105	2.000	2.189	2.000	2.217	2.000
Glasses	0.270	0.000	0.315	0.000	0.326	0.000	0.211	0.000	0.189	0.000	0.189	0.000
Professional	0.934	1.000	0.902	1.000	0.941	1.000	0.923	1.000	0.902	1.000	0.906	1.000
Color photo	0.928	1.000	0.897	1.000	0.966	1.000	0.928	1.000	0.992	1.000	0.991	1.000
Nonwhite	0.033	0.000	0.042	0.000	0.030	0.000	0.078	0.000	0.057	0.000	0.047	0.000
Forced	0.084	0.000										

Panel A2 – Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CEO Job Announcement		M&A		TV		Print		Earnings w/ Photo		Earnings w/o Photo	
Sample Period	1985 to 2012		1985 to 2012		2008 to 2012				2000 to 2012			
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Internal	0.770	1.000										
Raided	0.212	0.000										
Marathon	0.117	0.000										
Transaction Value			0.331	0.126								
Public			0.501	1.000								
Initial bid			0.832	1.000								
News type dummies												
Investment					0.019	0.000	0.049	0.000				
M&A					0.030	0.000	0.074	0.000				
Earnings					0.177	0.000	0.173	0.000				
Financial policy					0.010	0.000	0.021	0.000				
Personnel					0.034	0.000	0.088	0.000				
Legal					0.021	0.000	0.020	0.000				
Company news					0.181	0.000	0.159	0.000				
Product					0.055	0.000	0.117	0.000				
Political					0.080	0.000	0.034	0.000				
Industry					0.222	0.000	0.024	0.000				
International					0.057	0.000	0.030	0.000				
Other					0.105	0.000	0.211	0.000				
UE									0.003	0.001	0.002	0.001
Volatility									0.303	0.264	0.323	0.299
N	486		591		801		914		122		106	
N(Firms)	278		217		168		121		77		72	
N(CEOs)	485		278		177		124		79		72	

Table I. Summary Statistics (Cont.)

Panel B. Determinants of Facial Attractiveness Index

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	CEO Job Announcement	M&A	TV	Print	Earnings w/ Photo	Earnings w/o Photo
Dep. Variable				Log(FAI)			
fWHR	-0.020	-0.018	-0.037	-0.050	-0.093*	-0.091	-0.062
	(-0.856)	(-0.688)	(-0.875)	(-1.195)	(-1.781)	(-1.418)	(-0.760)
Log(Size)	0.002	-0.000	0.005	0.003	-0.004	0.008	0.018
	(0.632)	(-0.127)	(1.306)	(0.503)	(-0.322)	(0.669)	(1.130)
MTB	0.000	0.001	-0.001	0.000	0.001***	0.000	0.002
	(0.107)	(1.115)	(-0.685)	(0.603)	(2.717)	(1.055)	(0.406)
Stock return	-0.002	-0.013	0.008	0.007	-0.017**	0.010	0.012
	(-0.210)	(-1.106)	(1.198)	(1.097)	(-2.284)	(0.712)	(0.548)
Leverage	-0.020	-0.004	-0.002	-0.128**	-0.171***	-0.056	-0.057
	(-0.852)	(-0.167)	(-0.053)	(-2.545)	(-3.688)	(-1.350)	(-0.925)
Female	0.007	0.007	-0.009	0.080*	0.062	0.071	0.106
	(0.276)	(0.212)	(-0.242)	(1.908)	(1.369)	(1.238)	(1.255)
Age	-0.001	-0.001	-0.001	0.002*	0.004*	0.005**	0.006*
	(-0.796)	(-1.142)	(-1.278)	(1.875)	(1.758)	(2.008)	(1.891)
Tenure (Months)	-0.000	-0.000	0.000	-0.000***	-0.000*	0.000	0.000
	(-0.604)	(-0.592)	(0.141)	(-2.793)	(-1.827)	(0.088)	(0.491)
OC67	-0.022	0.010	-0.026	0.055**	0.060	0.006	-0.006
	(-1.150)	(0.514)	(-1.131)	(2.175)	(1.303)	(0.105)	(-0.069)
Ivy	0.004	0.005	0.018	0.049***	0.014	0.003	0.012
	(0.424)	(0.378)	(0.969)	(2.642)	(0.535)	(0.081)	(0.263)
MBA	0.008	0.006	0.025	0.015	0.081***	-0.001	0.000
	(0.948)	(0.505)	(1.483)	(0.919)	(4.466)	(-0.026)	(0.013)
Smiling	-0.019**	-0.035***	-0.045***	0.011	-0.029	0.029	0.010
	(-2.203)	(-3.223)	(-2.716)	(0.622)	(-1.118)	(1.051)	(0.304)
Bald	-0.001	-0.000	0.017**	0.012	0.017	0.030*	0.031
	(-0.163)	(-0.062)	(2.295)	(1.528)	(1.530)	(1.914)	(1.561)
Glasses	0.003	0.009	-0.021	-0.045**	-0.027	0.002	-0.002
	(0.354)	(0.883)	(-1.286)	(-2.452)	(-0.999)	(0.067)	(-0.054)
Professional	-0.028**	-0.018	-0.037	0.048	0.029	-0.025	0.000
	(-2.096)	(-0.967)	(-1.547)	(1.604)	(0.881)	(-0.678)	(0.007)
Color photo	-0.001	-0.003	0.003	0.002	-0.011	-0.142***	-0.178***
	(-0.047)	(-0.204)	(0.135)	(0.070)	(-0.253)	(-3.180)	(-3.425)

Panel B – Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample	CEO Job Announcement	M&A	TV	Print	Earnings w/ Photo	Earnings w/o Photo
Dep. Variable				*Log(FAI)*			
Nonwhite	-0.061***	-0.089**	-0.075*	-0.113***	-0.137***	-0.010	-0.026
	(-2.787)	(-2.521)	(-1.924)	(-2.939)	(-4.211)	(-0.225)	(-0.324)
Internal		0.049					
		(1.162)					
Raided		0.042					
		(1.009)					
Forced		-0.009					
		(-0.447)					
Marathon		-0.013					
		(-0.933)					
Transaction Value			-0.000				
			(-0.077)				
Public			0.019*				
			(1.820)				
Initial bid			0.006				
			(0.311)				
News type dummies				Yes	Yes		
UE						-0.992	2.224
						(-1.034)	(0.976)
Volatility						0.022	0.068
						(0.299)	(0.827)
Intercept	2.086***	2.083***	2.085***	1.917***	2.131***	1.884***	1.655***
	(30.222)	(21.267)	(18.500)	(13.779)	(12.740)	(9.265)	(5.280)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered (Firm)	Yes	Yes	No	No	No	No	No
SE clustered (CEO)	No	No	Yes	Yes	Yes	Yes	Yes
N	667	486	591	801	914	122	106
R-squared	0.144	0.213	0.360	0.621	0.713	0.725	0.730

53

Table II. CEO Attractiveness and Stock Returns around Job Announcements

Table II presents regression analysis of cumulative abnormal returns (relative to the market-model) surrounding CEO job announcements on the natural logarithm of *FAI* (*Log (FAI)*). Various event windows (−day(s), +day(s)) are reported. Industry is defined as 2-digit SIC codes. Standard errors are robust to heteroskedasticity and within firm correlation (clustered standard errors); *t-statistics* are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

	(1)	(2)	(3)	(4)	(5)
	Event Window (Days)				
Dep. Variable: CAR	(-2,2)	(-3,3)	(-5,5)	(-5,30)	(-5,60)
Log(FAI)	0.071*	0.091**	0.118***	0.134**	0.190**
	(1.920)	(2.324)	(2.721)	(2.060)	(2.286)
fWHR	0.012	0.022	0.024	-0.046	-0.063
	(0.614)	(1.022)	(1.050)	(-1.078)	(-1.054)
Log(Size)	0.000	0.000	-0.003	-0.009	-0.018**
	(0.048)	(0.027)	(-0.779)	(-1.494)	(-2.407)
MTB	-0.000	-0.000	-0.000	-0.001**	-0.001
	(-0.314)	(-1.440)	(-1.298)	(-2.007)	(-1.191)
Stock return	-0.020**	-0.023**	-0.031**	-0.098***	-0.146***
	(-1.975)	(-1.985)	(-2.314)	(-3.878)	(-4.781)
Leverage	-0.011	-0.008	0.002	0.033	0.118*
	(-0.721)	(-0.452)	(0.085)	(0.905)	(1.809)
Female	-0.002	-0.005	-0.002	0.036	0.005
	(-0.101)	(-0.284)	(-0.095)	(1.292)	(0.107)
Age	0.000	0.000	0.000	-0.001	-0.002
	(0.229)	(0.561)	(0.454)	(-0.711)	(-1.388)
Tenure (Months)	0.000	0.000	0.000	-0.000	-0.000
	(1.356)	(1.098)	(0.654)	(-0.034)	(-0.690)
OC67	-0.007	-0.008	-0.013	0.067***	0.109***
	(-0.401)	(-0.488)	(-0.680)	(2.627)	(2.960)
Ivy	0.001	0.001	0.007	-0.020	-0.015
	(0.175)	(0.121)	(0.710)	(-1.314)	(-0.659)

Table II – Continued

Dep. Variable: CAR	(1)	(2)	(3)	(4)	(5)
			Event Window (Days)		
	(-2,2)	(-3,3)	(-5,5)	(-5,30)	(-5,60)
MBA	-0.000	-0.002	-0.006	0.000	-0.001
	(-0.025)	(-0.204)	(-0.713)	(0.004)	(-0.076)
Internal	-0.036	-0.047*	-0.055**	-0.091***	-0.044
	(-1.591)	(-1.815)	(-2.252)	(-2.737)	(-1.050)
Raided	-0.014	-0.021	-0.024	-0.049	-0.002
	(-0.563)	(-0.774)	(-0.899)	(-1.432)	(-0.033)
Forced	-0.008	-0.013	-0.012	-0.024	0.002
	(-0.704)	(-1.087)	(-0.741)	(-1.054)	(0.067)
Marathon	0.006	-0.003	0.004	-0.021	-0.015
	(0.537)	(-0.212)	(0.255)	(-0.840)	(-0.479)
Smiling	-0.004	-0.003	0.001	0.005	0.009
	(-0.481)	(-0.380)	(0.084)	(0.290)	(0.397)
Bald	-0.004	-0.003	-0.003	-0.002	-0.004
	(-1.428)	(-0.966)	(-0.843)	(-0.380)	(-0.427)
Glasses	-0.012**	-0.013*	-0.011	-0.022	-0.021
	(-1.986)	(-1.750)	(-1.280)	(-1.512)	(-1.033)
Professional	0.015	0.013	0.019	0.040	0.016
	(1.053)	(0.849)	(1.055)	(1.386)	(0.311)
Color photo	-0.012	-0.014	-0.011	-0.056	-0.053
	(-0.619)	(-0.589)	(-0.417)	(-1.521)	(-1.265)
Nonwhite	0.007	-0.001	-0.002	0.032	0.018
	(0.269)	(-0.041)	(-0.105)	(0.755)	(0.334)
Intercept	-0.127	-0.189*	-0.226*	0.077	0.106
	(-1.298)	(-1.870)	(-1.891)	(0.419)	(0.371)
Industry controls	Yes	Yes	Yes	Yes	Yes
SE clustered (Firm)	Yes	Yes	Yes	Yes	Yes
N	486	486	486	486	486
R-squared	0.170	0.164	0.189	0.289	0.314

Table III. CEO Attractiveness and Acquirer Returns around Merger Announcements

Table III presents regression analysis of cumulative abnormal returns (relative to the market-model) surrounding the mergers announcements on the natural logarithm of *FAI* (*Log (FAI)*). Various event windows (−day(s), +day(s)) are reported. Industry is defined as 2-digit SIC codes. Standard errors are robust to heteroskedasticity and within firm correlation (clustered standard errors); *t-statistics* are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

	(1)	(2)	(3)	(4)	(5)
	Event Window (Days)				
Dep. Variable: CAR	(-2,2)	(-3,3)	(-5,5)	(-5,30)	(-5,60)
Log(FAI)	0.101***	0.086**	0.127***	0.109**	0.182***
	(2.956)	(2.434)	(3.385)	(2.200)	(2.801)
fWHR	0.009	0.003	0.017	0.061	0.070
	(0.422)	(0.145)	(0.718)	(1.604)	(1.316)
Log(Size)	-0.007***	-0.008***	-0.011***	-0.017***	-0.013
	(-2.954)	(-3.004)	(-3.269)	(-3.305)	(-1.470)
MTB	0.000	0.000	0.000	0.000	0.000
	(0.055)	(0.219)	(0.321)	(0.137)	(0.180)
Stock return	0.005	-0.003	-0.012*	-0.052***	-0.073***
	(0.524)	(-0.386)	(-1.787)	(-3.621)	(-4.054)
Leverage	0.019	-0.005	-0.007	0.022	0.068
	(0.970)	(-0.216)	(-0.288)	(0.689)	(1.199)
Female	-0.009	-0.001	-0.001	0.020	0.018
	(-0.292)	(-0.029)	(-0.043)	(0.747)	(0.512)
Age	0.000	0.000	0.000	0.001	0.001
	(0.384)	(0.381)	(0.409)	(0.813)	(0.788)
Tenure (Months)	-0.000	-0.000*	-0.000*	-0.000**	-0.000*
	(-1.573)	(-1.894)	(-1.770)	(-2.580)	(-1.850)
OC67	0.024**	0.023**	0.014	-0.006	0.001
	(2.283)	(2.083)	(1.215)	(-0.299)	(0.037)
Ivy	0.004	0.005	0.007	0.002	-0.001
	(0.497)	(0.565)	(0.644)	(0.139)	(-0.029)

Table III – Continued

Dep. Variable: CAR	(1)	(2)	(3)	(4)	(5)
			Event Window (Days)		
	(-2,2)	(-3,3)	(-5,5)	(-5,30)	(-5,60)
MBA	0.005	0.008	0.010	0.025*	0.019
	(0.646)	(0.991)	(1.052)	(1.894)	(1.148)
Transaction value	-0.000	-0.000	-0.001	-0.004	0.000
	(-0.085)	(-0.177)	(-0.339)	(-1.196)	(0.059)
Public	-0.034***	-0.035***	-0.035***	-0.040***	-0.039**
	(-4.359)	(-4.194)	(-3.942)	(-2.836)	(-2.087)
Initial bid	-0.011	-0.011	-0.018	-0.043*	-0.082**
	(-1.107)	(-0.979)	(-1.567)	(-1.666)	(-2.127)
Smiling	-0.004	-0.010	-0.011	-0.031**	-0.054***
	(-0.538)	(-1.138)	(-1.136)	(-2.208)	(-2.983)
Bald	-0.001	-0.004	-0.001	0.003	0.006
	(-0.354)	(-0.961)	(-0.374)	(0.648)	(0.809)
Glasses	-0.004	-0.002	-0.006	-0.020	-0.015
	(-0.534)	(-0.271)	(-0.731)	(-1.608)	(-0.989)
Professional	0.013	0.003	0.007	0.011	0.016
	(1.107)	(0.256)	(0.644)	(0.521)	(0.485)
Color photo	-0.003	-0.007	0.007	0.004	-0.010
	(-0.303)	(-0.713)	(0.476)	(0.207)	(-0.418)
Nonwhite	-0.021	-0.040**	-0.031**	-0.039*	-0.020
	(-1.076)	(-2.512)	(-2.101)	(-1.805)	(-0.564)
Intercept	-0.148*	-0.060	-0.161	-0.158	-0.354
	(-1.665)	(-0.623)	(-1.562)	(-1.073)	(-1.592)
Indusrty controls	Yes	Yes	Yes	Yes	Yes
SE clustered (CEO)	Yes	Yes	Yes	Yes	Yes
N	591	591	591	591	591
R-squared	0.170	0.167	0.191	0.259	0.224

Table IV. CEO Attractiveness and Long-run Acquirer Returns

Table IV reports the relation between *FAI* and long-run acquirer returns following M&A announcements. We report the average long-run buy-and-hold abnormal returns and calendar-time portfolio returns for various event windows following M&A announcements. Events are sorted into high and low *FAI* based on the median split; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively.

(1)	(2)	(3)	(4)	(5)
			Buy-and-Hold Portfolios	Calendar-Time Portfolios
Months	*FAI*	*N*	*BAHR*	*Alpha*
6	*High*	284	0.039	0.009
6	*Low*	290	-0.008	-0.001
	p(High - Low)		0.098*	0.036**
12	*High*	284	0.119	0.008
12	*Low*	290	0.033	0.001
	p(High - Low)		0.079*	0.047**
18	*High*	284	0.199	0.006
18	*Low*	290	0.032	0.004
	p(High - Low)		0.012**	0.494
24	*High*	284	0.194	0.005
24	*Low*	290	0.039	0.004
	p(High - Low)		0.055*	0.754

Table V. CEO Attractiveness and Stock Price Reactions Around News events

Panel A of Table V reports regression analysis of cumulative abnormal returns (CARs) (relative to the market-model) surrounding television news events and print news events on the natural logarithm of *FAI* (*Log(FAI)*). In Models (1) to (5), we report CARs around the television news events for event windows (0,0) to (-5,5). In Models (6) to (10), we report CARs around the print news events for event windows (0,0) to (-5,5). In Model (11), the dependent variable is a dummy variable equal to 1 if the event appears on television and zero if the event appears on print news. We search television news stories through Google.com's video search function. We further restrict the news results to appear only on CNBC.com. We search print news using the Proquest Complete database; the matched sample of print news stories is restricted to $+/-$ 10 days surrounding television news events. Television (print) news events that are within $+/-$ 1 day of print (television) news events are removed. Print news stories that contain photographs are also removed. Finally, the sample is restricted to news events between 2008 and 2012. Standard errors are robust to heteroskedasticity and within CEO correlation (clustered standard errors); *t-statistics* are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

Panel A. Television News Dates and Non-television News Dates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	TV					Print					
	Event Window (Days)					Event Window (Days)					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	TV = 1
Log(FAI)	0.044***	0.039**	0.035	0.034	0.029	0.004	-0.006	-0.013	0.000	0.037	-1.401
	(3.196)	(2.171)	(1.602)	(1.487)	(1.075)	(0.359)	(-0.169)	(-0.316)	(0.012)	(0.739)	(-0.800)
fWHR	-0.006	0.000	0.003	0.002	0.011	0.003	-0.008	-0.007	-0.007	-0.018	-0.262
	(-1.113)	(0.006)	(0.262)	(0.117)	(0.761)	(0.389)	(-0.524)	(-0.384)	(-0.312)	(-0.677)	(-0.233)
Log(Size)	-0.002*	-0.003	-0.006**	-0.008***	-0.011***	-0.003**	-0.009***	-0.013***	-0.015***	-0.013*	-0.117
	(-1.856)	(-1.487)	(-2.543)	(-2.759)	(-3.038)	(-2.180)	(-2.838)	(-2.942)	(-2.758)	(-1.910)	(-0.768)
MTB	0.000*	0.000	0.000***	0.000***	0.000***	0.000*	-0.000	-0.000	-0.000	-0.001	-0.001
	(1.842)	(0.659)	(4.164)	(3.866)	(3.342)	(1.666)	(-0.407)	(-0.622)	(-0.441)	(-0.677)	(-0.328)
Stock return	-0.001	-0.005*	-0.016***	-0.017***	-0.030***	0.001	-0.002	-0.004	-0.003	-0.014	0.130
	(-0.830)	(-1.739)	(-5.529)	(-2.741)	(-3.972)	(0.670)	(-0.483)	(-0.658)	(-0.324)	(-1.115)	(0.845)
Leverage	0.018**	0.013	0.014	0.002	-0.012	0.004	0.030	0.036*	0.036*	0.036	-0.546
	(2.470)	(1.008)	(1.380)	(0.134)	(-0.764)	(0.512)	(1.497)	(1.777)	(1.725)	(0.940)	(-0.488)

Panel A – Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			TV					Print			
			Event Window (Days)					Event Window (Days)			
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	TV = 1
Female	-0.007*	0.002	-0.005	-0.004	-0.001	-0.004	0.002	-0.005	-0.008	-0.020	0.503
	(-1.930)	(0.216)	(-0.375)	(-0.313)	(-0.079)	(-0.566)	(0.107)	(-0.226)	(-0.369)	(-0.804)	(0.580)
Age	-0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	-0.000	0.026
	(-0.063)	(-0.933)	(-0.750)	(-0.627)	(-0.895)	(0.788)	(0.678)	(0.309)	(0.018)	(-0.348)	(0.796)
Tenure (Months)	0.000	0.000*	0.000	0.000	0.000	0.000	0.000	-0.000	-0.000	0.000	0.001
	(1.309)	(1.936)	(1.264)	(1.173)	(0.863)	(0.987)	(0.029)	(-0.793)	(-0.069)	(0.304)	(0.386)
OC67	-0.021**	-0.007	-0.001	-0.007	-0.023	-0.003	-0.032***	-0.012	-0.027	-0.027	-0.345
	(-2.582)	(-0.793)	(-0.066)	(-0.859)	(-1.123)	(-0.664)	(-2.724)	(-0.831)	(-1.379)	(-0.602)	(-0.652)
Ivy	-0.001	0.001	0.000	0.000	-0.002	-0.002	0.001	-0.003	0.001	0.001	0.180
	(-0.442)	(0.160)	(0.094)	(0.039)	(-0.313)	(-0.580)	(0.123)	(-0.393)	(0.106)	(0.067)	(0.475)
MBA	0.002	0.002	0.005	0.004	0.008	0.002	0.015*	0.008	0.004	0.002	-0.149
	(0.930)	(0.434)	(1.071)	(0.796)	(1.358)	(0.668)	(1.944)	(0.948)	(0.398)	(0.162)	(-0.381)
Smiling	0.002	0.001	0.002	0.001	0.000	0.002	-0.001	0.009	0.015	0.019	0.615*
	(0.703)	(0.316)	(0.381)	(0.217)	(0.068)	(0.760)	(-0.172)	(1.116)	(1.527)	(1.634)	(1.753)
Bald	-0.001	-0.001	-0.002	-0.003	-0.003	0.001	0.006**	0.007*	0.006	0.003	0.084
	(-0.404)	(-0.303)	(-0.713)	(-1.147)	(-0.884)	(1.208)	(2.110)	(1.925)	(1.375)	(0.639)	(0.544)
Glasses	-0.001	-0.001	0.002	0.003	0.000	0.001	-0.007	-0.001	-0.000	0.004	0.403
	(-0.273)	(-0.170)	(0.523)	(0.658)	(0.013)	(0.344)	(-0.901)	(-0.143)	(-0.010)	(0.400)	(1.041)
Professional	-0.004	0.009	0.014	0.018*	0.009	0.005	0.011	0.006	0.003	0.003	0.322
	(-0.835)	(1.041)	(1.207)	(1.813)	(0.801)	(0.723)	(0.817)	(0.382)	(0.148)	(0.133)	(0.361)
Color photo	0.004	0.009*	0.019**	0.024**	0.033**	-0.002	0.005	-0.006	-0.009	-0.005	0.604
	(0.889)	(1.726)	(2.537)	(2.557)	(1.985)	(-0.452)	(0.445)	(-0.411)	(-0.570)	(-0.294)	(1.121)

Panel A – Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	TV					Print					
	Event Window (Days)					Event Window (Days)					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	TV = 1
Nonwhite	0.003	0.003	-0.002	0.014	0.009	0.007	-0.008	-0.003	-0.003	0.009	-1.104
	(0.535)	(0.328)	(-0.176)	(1.323)	(0.836)	(1.335)	(-0.428)	(-0.156)	(-0.209)	(0.506)	(-1.459)
News type dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	-0.063**	-0.071	-0.050	-0.025	0.006	-0.006	0.055	0.111	0.117	0.058	3.689
	(-2.199)	(-1.420)	(-0.881)	(-0.405)	(0.079)	(-0.199)	(0.638)	(1.223)	(1.224)	(0.425)	(0.653)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered(CEO)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	801	801	801	801	801	914	914	914	914	914	1715
R-squared	0.123	0.109	0.157	0.147	0.136	0.068	0.124	0.141	0.142	0.152	0.183

Table V. CEO Attractiveness and Stock Price Reactions Around News events (Cont.)

Panel B of Table V reports regression analysis of cumulative abnormal returns (CARs) (relative to the market-model) surrounding earnings announcement news (with and without CEO images) on the natural logarithm of *FAI* (*Log(FAI)*). In Models (1) to (5), we report CARs around the earnings announcement news with CEO images for event windows (0,0) to (-5,5). In Models (6) to (10), we report CARs around earnings announcement news without the CEO's image for event windows (0,0) to (-5,5). In Model (11), the dependent variable is a dummy variable equal to 1 if the event is the earnings announcement news with CEO image and zero if the event is the earnings announcement news without the CEO's image. We search CEO image through Google.com's image search function. The control sample of earnings announcement dates without the CEO's image is matched based on the same quarter of the prior year to the treatment sample. Standard errors are robust to heteroskedasticity and within CEO correlation (clustered standard errors); t-statistics are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

Panel B. Earnings News with and without CEO Photos

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Earnings News with Photos					Earnings News without Photos					
	Event Window (Days)					Event Window (Days)					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	Photo = 1
Log(FAI)	0.040	0.194*	0.220*	0.225**	0.208*	-0.002	0.006	-0.014	0.027	0.033	1.128
	(0.448)	(1.935)	(1.861)	(2.097)	(1.790)	(-0.030)	(0.076)	(-0.149)	(0.293)	(0.277)	(0.733)
fWHR	-0.025	-0.015	-0.014	-0.006	0.033	-0.015	0.016	0.050	0.100*	0.105*	0.560
	(-0.592)	(-0.274)	(-0.240)	(-0.097)	(0.539)	(-0.282)	(0.319)	(0.976)	(1.956)	(1.753)	(0.638)
Log(Size)	0.003	0.001	-0.002	-0.004	-0.001	-0.000	-0.005	-0.008	-0.008	-0.005	-0.004
	(0.385)	(0.054)	(-0.136)	(-0.297)	(-0.066)	(-0.027)	(-0.695)	(-0.951)	(-0.916)	(-0.610)	(-0.031)
MTB	0.000	-0.000	-0.000	0.000	0.000	0.004	0.006	0.002	-0.000	-0.003	0.032*
	(0.703)	(-0.009)	(-0.148)	(0.019)	(0.114)	(1.118)	(1.379)	(0.357)	(-0.005)	(-0.532)	(1.676)
Stock return	0.009	-0.001	-0.011	-0.011	-0.009	-0.002	-0.012	-0.025	-0.025	-0.033*	-0.623
	(0.948)	(-0.090)	(-0.603)	(-0.664)	(-0.454)	(-0.224)	(-0.724)	(-1.457)	(-1.344)	(-1.758)	(-1.160)

Panel B – Continued

Dep. Variable: CAR	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Earnings News with Photos					Earnings News without Photos					
	Event Window (Days)					Event Window (Days)					
	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	Photo = 1
Leverage	-0.043	-0.029	-0.021	-0.012	-0.016	0.005	-0.023	-0.032	-0.033	0.017	0.116
	(-0.584)	(-0.303)	(-0.201)	(-0.111)	(-0.147)	(0.187)	(-0.786)	(-1.167)	(-1.379)	(0.514)	(0.138)
Female	-0.019	-0.057	-0.059	-0.047	-0.067	-0.039	-0.059	-0.044	-0.057	-0.046	-0.869
	(-0.483)	(-1.055)	(-0.927)	(-0.761)	(-0.955)	(-1.195)	(-1.486)	(-1.235)	(-1.641)	(-1.190)	(-1.036)
Age	-0.000	-0.002	-0.002	-0.002	-0.002	0.003	0.002	0.001	0.000	0.002	0.017
	(-0.301)	(-0.895)	(-0.904)	(-1.072)	(-0.727)	(1.653)	(1.202)	(0.530)	(0.117)	(0.799)	(0.720)
Tenure (Months)	0.000	-0.000	0.000	0.000	-0.000	0.000	-0.000	-0.000	-0.000*	-0.000**	-0.002
	(0.278)	(-0.128)	(0.169)	(0.035)	(-0.392)	(0.246)	(-0.610)	(-1.211)	(-1.863)	(-2.237)	(-1.259)
OC67	0.029	-0.000	-0.006	0.013	0.005	-0.027	0.011	0.087	0.155***	0.129**	0.693
	(0.831)	(-0.009)	(-0.085)	(0.170)	(0.063)	(-0.567)	(0.179)	(1.599)	(3.134)	(2.551)	(0.928)
Ivy	0.036	0.032	0.022	0.014	0.031	-0.002	0.003	0.004	0.009	-0.011	-0.007
	(1.289)	(0.941)	(0.540)	(0.355)	(0.728)	(-0.111)	(0.119)	(0.200)	(0.410)	(-0.501)	(-0.018)
MBA	-0.004	-0.019	-0.016	-0.020	-0.023	-0.013	-0.014	-0.005	-0.006	-0.020	-0.137
	(-0.279)	(-1.214)	(-0.888)	(-1.113)	(-1.173)	(-0.731)	(-0.794)	(-0.306)	(-0.360)	(-0.991)	(-0.408)
UE	-0.614	-1.513	-1.615	-1.874	-2.563	-1.059	1.632	-0.617	-4.488	-0.735	51.429
	(-0.738)	(-1.045)	(-1.173)	(-1.486)	(-1.607)	(-0.624)	(0.575)	(-0.204)	(-1.397)	(-0.185)	(1.058)
Volatility	0.032	0.049	0.046	0.003	0.022	0.030	0.049	0.040	0.034	0.045	-2.068*
	(0.468)	(0.611)	(0.527)	(0.029)	(0.184)	(0.702)	(0.976)	(0.588)	(0.461)	(0.595)	(-1.699)
Smiling	0.036*	0.030	0.032	0.034	0.032	0.028	-0.002	-0.018	-0.033	-0.034	0.172
	(1.939)	(1.241)	(1.263)	(1.355)	(1.171)	(1.120)	(-0.078)	(-0.649)	(-1.186)	(-0.975)	(0.516)

Panel B – Continued

Dep. Variable: CAR	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Earnings News with Photos					Earnings News without Photos					
	Event Window (Days)					Event Window (Days)					
	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)	Photo = 1
Bald	-0.001	-0.009	-0.016	-0.010	-0.014	-0.012	-0.017*	-0.014	-0.019**	-0.006	-0.094
	(-0.140)	(-0.904)	(-1.312)	(-0.840)	(-1.116)	(-1.471)	(-1.903)	(-1.523)	(-2.120)	(-0.541)	(-0.587)
Glasses	0.018	0.016	0.024	0.015	0.010	-0.022	-0.018	-0.005	0.007	0.002	-0.039
	(1.332)	(0.872)	(1.114)	(0.732)	(0.489)	(-1.118)	(-0.992)	(-0.316)	(0.484)	(0.112)	(-0.108)
Professional	0.050**	0.005	0.011	0.000	0.016	0.008	-0.003	0.018	0.037	-0.003	-0.119
	(2.438)	(0.151)	(0.271)	(0.007)	(0.357)	(0.291)	(-0.080)	(0.490)	(1.058)	(-0.100)	(-0.225)
Color photo	0.029	0.074	0.106**	0.089*	0.116**	0.013	0.010	-0.018	-0.114***	-0.130***	0.488
	(0.835)	(1.632)	(2.053)	(1.859)	(2.254)	(0.505)	(0.285)	(-0.552)	(-3.421)	(-3.754)	(0.348)
Nonwhite	0.001	0.030	0.037	0.042	0.036	-0.023	-0.022	-0.048	-0.048	-0.011	0.450
	(0.046)	(0.712)	(0.715)	(0.805)	(0.619)	(-0.847)	(-0.699)	(-1.500)	(-1.401)	(-0.311)	(0.605)
Intercept	-0.127	-0.331	-0.371	-0.345	-0.480	-0.142	-0.078	0.015	-0.019	-0.133	-3.683
	(-0.511)	(-1.095)	(-1.047)	(-1.026)	(-1.344)	(-0.685)	(-0.332)	(0.061)	(-0.077)	(-0.432)	(-0.813)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered(CEO)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	122	122	122	122	122	106	106	106	106	106	228
R-squared	0.453	0.315	0.330	0.310	0.306	0.503	0.475	0.424	0.503	0.556	0.040

Table VI. Facial Attractiveness Index and Survey-based Measures

Table VI reports the relation between *FAI* and survey-based measures of CEO appearance. Panel A reports the descriptive statistics of the survey-based measures. Panel B reports regression analysis of *FAI* on survey-based measures, including *Attractiveness*, *Competence*, *Trustworthiness*, and *Baby-facedness*, as well as additional controls. *Res(Competence)* is the residualized value of Competence (after removing its correlation with Attractiveness). *Res(Trustworthiness)* is the residualized value of Trustworthiness (after removing its correlation with *Attractiveness*). *Res(Baby-facedness)* is the residualized value of *Baby-facedness* (after removing its correlation with *Attractiveness*). ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. All other control variables are described in the Appendix.

Panel A: Descriptive Statistics

	(1)	(2)	(3)	(4)	(5)
	Mean	SD	Min	Median	Max
Attractiveness	2.433	0.618	1.100	2.400	4.300
Competence	3.515	0.425	2.100	3.500	4.800
Trustworthiness	3.156	0.511	1.500	3.200	4.500
Baby-facedness	2.241	0.553	1.000	2.200	3.900
N	667				
N(Firms)	359				
N(CEOs)	667				

Table VI. Facial Attractiveness Index and Survey-based Measures (Cont.)

Panel B. Relation between Facial Attractiveness Index and Survey-based Measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Dep. Variable:						*FAI*					
Attractiveness	0.096**				0.111**				0.104**	0.111**	0.116**
	(2.347)				(2.146)				(2.007)	(2.138)	(2.243)
Competence		0.082				0.125*					
		(1.261)				(1.739)					
Trustworthiness			-0.021				0.049				
			(-0.414)				(0.811)				
Baby-facedness				0.051				0.094*			
				(1.093)				(1.844)			
Res(Competence)									0.079		
									(1.002)		
Res(Trustworthiness)										0.005	
										(0.083)	
Res(Baby-facedness)											0.073
											(1.350)
fWHR					-0.151	-0.150	-0.187	-0.245	-0.137	-0.152	-0.202
					(-0.918)	(-0.910)	(-1.147)	(-1.440)	(-0.828)	(-0.919)	(-1.151)
Log(Size)					0.016	0.014	0.017	0.017	0.014	0.016	0.016
					(0.779)	(0.634)	(0.818)	(0.803)	(0.659)	(0.776)	(0.760)
Age					-0.002	-0.005	-0.005	-0.002	-0.003	-0.002	-0.000
					(-0.407)	(-0.964)	(-0.972)	(-0.478)	(-0.501)	(-0.408)	(-0.093)
Tenure (Months)					-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
					(-0.606)	(-0.670)	(-0.665)	(-0.601)	(-0.612)	(-0.604)	(-0.549)

Panel B – Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Dep. Variable:					*FAI*						
Smiling					-0.135**	-0.142**	-0.141**	-0.128**	-0.145**	-0.137**	-0.139**
					(-2.311)	(-2.338)	(-2.139)	(-2.212)	(-2.403)	(-2.110)	(-2.376)
Bald					0.012	-0.008	-0.005	-0.006	0.007	0.012	0.012
					(0.446)	(-0.319)	(-0.191)	(-0.214)	(0.265)	(0.448)	(0.430)
Glasses					0.063	0.018	0.024	0.037	0.047	0.062	0.063
					(0.925)	(0.262)	(0.350)	(0.563)	(0.641)	(0.855)	(0.925)
Professional					-0.210**	-0.231**	-0.204**	-0.215**	-0.230**	-0.211**	-0.225**
					(-2.211)	(-2.391)	(-2.134)	(-2.297)	(-2.369)	(-2.212)	(-2.382)
Color photo					-0.013	-0.011	-0.005	0.004	-0.016	-0.013	-0.006
					(-0.131)	(-0.112)	(-0.050)	(0.038)	(-0.155)	(-0.131)	(-0.060)
Nonwhite					-0.391***	-0.417***	-0.408***	-0.416***	-0.401***	-0.391***	-0.399***
					(-2.697)	(-2.882)	(-2.864)	(-2.930)	(-2.722)	(-2.689)	(-2.758)
Intercept	7.017***	6.964***	7.316***	7.137***	7.570***	7.639***	7.934***	7.875***	7.647***	7.575***	7.596***
	(69.269)	(30.170)	(45.233)	(67.229)	(13.859)	(14.303)	(15.961)	(17.172)	(13.879)	(13.699)	(13.834)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered (Firm)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	667	667	667	667	667	667	667	667	667	667	667
R-squared	0.007	0.003	0.000	0.002	0.146	0.145	0.141	0.144	0.147	0.146	0.148

Table VII. Survey-based Attractiveness and Shareholder Value

Table VII reports regression analysis of cumulative abnormal returns (CARs) (relative to the market-model) surrounding various corporate events on the predicted value of the survey-based Attractiveness and all other controls included in the previous analyses. For conciseness, we only report the coefficients and *t-statistics* on *P(Attractiveness)*. Standard errors are robust to heteroskedasticity and within CEO correlation (clustered standard errors); t-statistics are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

	(1)	(2)	(3)	(4)	(5)
Panel A. CEO Job Announcement					
Dep. Variable: CAR	(-2,2)	(-3,3)	(-5,5)	(-5,30)	(-5,60)
P(Attractiveness)	0.111*	0.147**	0.188**	0.218**	0.303**
	(1.819)	(2.243)	(2.583)	(2.045)	(2.205)
N	486	486	486	486	486
R-squared	0.170	0.164	0.189	0.290	0.314
Panel B. Merger Announcements					
Dep. Variable: CAR	(-2,2)	(-3,3)	(-5,5)	(-5,30)	(-5,60)
P(Attractiveness)	0.234***	0.198**	0.287***	0.247*	0.411**
	(2.840)	(2.200)	(3.087)	(1.881)	(2.423)
N	591	591	591	591	591
R-squared	0.171	0.167	0.192	0.259	0.224
Panel C. Televison News Dates					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)
P(Attractiveness)	0.043***	0.039**	0.033	0.033	0.030
	(3.193)	(2.225)	(1.514)	(1.438)	(1.113)
N	801	801	801	801	801
R-squared	0.123	0.109	0.157	0.147	0.136
Panel D. Print News Dates					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)
P(Attractiveness)	0.006	-0.004	-0.008	0.006	0.041
	(0.462)	(-0.097)	(-0.206)	(0.174)	(0.842)
N	914	914	914	914	914
R-squared	0.068	0.124	0.141	0.142	0.153

Continued on next page.

Table VII. – Continued

	(1)	(2)	(3)	(4)	(5)
Panel E. Earnings News with Photos					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)
P(Attractiveness)	0.035	0.179*	0.201*	0.207*	0.192*
	(0.410)	(1.817)	(1.739)	(1.968)	(1.689)
N	122	122	122	122	122
R-squared	0.453	0.314	0.329	0.309	0.306

Panel F. Earnings News without Photos					
Dep. Variable: CAR	(0,0)	(-1,1)	(-2,2)	(-3,3)	(-5,5)
P(Attractiveness)	0.006	0.015	-0.009	0.031	0.036
	(0.071)	(0.175)	(-0.098)	(0.321)	(0.299)
N	106	106	106	106	106
R-squared	0.503	0.475	0.424	0.503	0.556

Table VIII. Television and News Events Controlling for Selection Bias

Table VIII reports the results from the outcome regression including the Inverse Mills Ratio to control for the selection news events into the television or print news samples. The coefficients on Inverse Mills Ratio (unreported) are significant at the 5% level in both regressions. A Wald test of the difference between the coefficient on *FAI* in CEOs' television news events and that in CEOs' print news samples is significant at the 5% level. The p-value from the joint test of the significance of the instruments is also reported. *t-statistics* are reported in the parentheses; ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels, respectively. The control variables are described in the Appendix.

	(1)	(2)
	TV	Print
Dep. Variable: CAR	(0,0)	(0,0)
Log(FAI)	0.052***	0.009
	(2.908)	(0.575)
fWHR	-0.005	0.004
	(-0.675)	(0.496)
Log(Size)	-0.002	-0.003*
	(-1.324)	(-1.693)
MTB	0.000	0.000*
	(1.048)	(1.660)
Stock return	-0.002	0.001
	(-1.142)	(0.411)
Leverage	0.020***	0.008
	(2.730)	(0.749)
Female	-0.009*	-0.006
	(-1.781)	(-0.848)
Age	-0.000	0.000
	(-0.556)	(0.408)
Tenure (Months)	0.000	0.000
	(1.075)	(0.598)
OC67	-0.020**	-0.000
	(-2.394)	(-0.076)
Ivy	-0.002	-0.003
	(-0.614)	(-0.662)

Table VIII – Continued

	(1)	(2)
	TV	Print
Dep. Variable: CAR	(0,0)	(0,0)
MBA	0.003	0.002
	(1.010)	(0.686)
Smiling	-0.001	-0.001
	(-0.196)	(-0.255)
Bald	-0.001	0.001
	(-0.613)	(0.852)
Glasses	-0.002	-0.001
	(-0.736)	(-0.293)
Professional	-0.006	0.005
	(-0.786)	(0.689)
Color photo	0.001	-0.005
	(0.141)	(-0.835)
Nonwhite	0.008	0.012*
	(0.867)	(1.944)
News type dummies	Yes	Yes
Intercept	-0.068**	-0.024
	(-1.963)	(-0.535)
Instruments (p-value)	0.004***	0.012**
Industry controls	Yes	Yes
SE clustered (CEO)	Yes	Yes
N	801	914