BEAUTY IS WEALTH: CEO APPEARANCE AND SHAREHOLDER VALUE

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Abstract

This paper examines whether and how the appearance of chief executives officers (CEOs) affects shareholder value. We obtain a Facial Attractiveness Index of 677 CEOs from the S&P 500 companies based on their facial geometry. CEOs with a higher Facial Attractiveness Index are associated with better stock returns around their first days on the job, and higher acquirer returns upon acquisition announcements. To mitigate endogeneity concerns, we compare stock returns surrounding CEO television news events with stock returns surrounding a matched sample of news article events related to the same CEO. CEOs' Facial Attractiveness Index positively affects the stock returns on the television news date, but not around the news article date. The findings suggest that CEO appearance matters for shareholder value and provide an explanation why more attractive CEOs receive "beauty premiums" in their compensation.

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This paper examines whether chief executive officers (CEOs)' appearance affects shareholder value. Appearance, measured by sheer beauty, perceived competence, likability, and trustworthiness, affects various types of individual and social outcomes. It predicts candidates' election results (Todorov et al. (2005), among others), individual income, achievements, peer recognition (Hamermesh and Biddle (1994), Kennedy (1990)), and even military ranks (Mazur et al. (1984)). In the finance literature, perceived competence and attractiveness affect managerial compensation (Graham, Harvey and Puri (2010)), personal lending (Duarte, Siegel, and Young (2012), Ravina (2012)), and hedge fund investments (Pareek and Zuckerman (2013)). However, despite the documented effects of appearance on CEO pay and financing activities at the personal level, it is far less clear whether and how appearance would impact shareholder value. Graham, Harvey, and Puri (2010) find no evidence that firms of competent looking CEOs achieve better performance, where performance is measured by return on assets. In a competitive labor market, given the evidence that better looking CEOs receive higher pay, we would expect that more attractive CEOs contribute to shareholder value in some way(s).

To further assess whether and in what channels CEO appearance affects shareholder value, we obtain a Facial Attractiveness Index of 677 CEOs of S&P 500 companies based on their facial geometry. We use facial geometry as the measure of CEO attractiveness for the following reasons. First, since the time of ancient Greece, a person's facial geometry, including the golden ratio, has been well documented to relate to beauty and attractiveness.[1] In the psychology literature, Rhodes (2006), among others, finds that facial averageness and symmetry indeed indicate attractiveness in both male and female faces and across cultures. Second, facial geometry, which is a biologically based standard of beauty, appears to be a more persistent

[1] See, for example, the discussion of an ABC News article titled "Britain's "Most Beautiful Face" Reveals Beauty Secrets." (http://abcnews.go.com/blogs/lifestyle/2012/04/britains-most-beautiful-face-reveals-beauty-secrets/)

measure of attractiveness and invites less selective perception bias commonly seen in survey-based measures.[2] Finally, facial geometry based measures are easy to quantify using geometry and mathematics. We obtain each CEO's Facial Attractive 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.

Our findings are summarized as follows. First, consistent with Graham, Harvey, and Puri (2010), more attractive CEOs receive higher total compensation. This finding confirms the existence of the "beauty premium" in CEO pay. Further, more attractive CEOs are associated with better stock returns around their first days on the job. This result provides the first piece of evidence that CEO appearance affects 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 appearance matters for shareholder value: negotiating and visibility. Existing evidence suggests that more physically attractive people are better negotiators and receive a greater surplus in negotiation (Rosenblatt (2008)). We examine a key corporate event on which CEOs have considerable influence—mergers and acquisitions (M&As) (Graham, Harvey, and Puri (2013)). We find a positive and significant effect of CEO attractiveness on acquirer returns around merger announcement dates, a finding consistent with the negotiating channel. Finally, CEO attractiveness may also affect shareholder value through the visibility channel, in which media attention may affect a firm's investor base and stock prices (Merton (1987), Kim and Meschke (2013)). If visibility is an important determinant of stock prices, firms may hire more attractive CEOs, ceteris paribus, to help enhance firm image. Consistent with

[2] For example, using a two-person sequential trust game, DeBruine (2002) finds that subjects are more likely to trust partners who show more facial resemblance to subjects themselves.

CEOs affecting shareholder value through the visibility channel, we find that more attractive CEOs are associated with better stock returns on CEO-related television news days. Overall, our findings suggest that more attractive CEOs receive higher compensation for a reason: They create value for shareholders through better negotiating power and visibility.

As with most empirical research, endogeneity complicates the interpretation of our results. We address this concern by comparing the stock returns around CEOs' television news events to the returns surrounding a matched sample of non-television news events for the same group of CEOs. Unlike the aforementioned results on CEOs' television news event dates, CEO appearance shows no significant impact on stock returns around non-television news event dates. This finding greatly reduces potential endogeneity concerns and further supports the visibility hypothesis.

Our paper relates to a large literature on the effects of CEOs on corporate outcomes. Existing literature has found that manager fixed effects matter (Bertrand and Schoar (2003), Graham, Li and Qiu (2011)). Further, characteristics of CEOs, including gender (Faccio, Marchica, and Mura (2012)), overconfidence (Malmendier and Tate (2005, 2008), Malmendier, Tate and Yan (2011)), their 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. Psychology literature suggests that personality is manifested through appearance (Naumann, Vazire, Rentfrow, and Gosling (2009), among others), but there is much less literature on how appearance affects corporate activities. This paper adds to this literature by providing novel findings that CEO appearance matters for shareholder value through the negotiating and visibility channels.

The present study also contributes to the literature on whether and how media reporting affects stock prices. This line of literature focuses on the informational effects of media.[3] For example, 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 (2013)). In contrast, our findings suggest that factors unrelated to informational content, such as the attractiveness of interviewees on television, matter for stock returns.

The rest of the paper is organized as follows. Section I develops the hypotheses and reviews related literature. Section II describes the data and the construction of CEOs' Facial Attractiveness Index. Section III presents the main results and robustness tests. Section IV concludes.

I. Hypothesis Development and Literature Review

A. Hypothesis Development

In this paper, we test the hypothesis that more attractive CEOs receive higher pay because they enhance shareholder value. Following this main argument, we form several hypotheses and discuss them below in detail.

The first hypothesis posits that CEO appearance matters for compensation. This hypothesis establishes the value of CEO appearance and constitutes an integral part of the main argument. Further, Graham, Harvey, and Puri (2010) find evidence of a "beauty premium" in CEO pay using a measure of CEO attractiveness based on survey results. It is thus important to test the link between CEO attractiveness and compensation using the Facial Attractiveness Index. Specifically:

[3] Two notable exceptions are Dougal, Engelberg, Garcia and Parsons (2011), who find that the style of journalists affect stock returns, and Kim and Meschke (2013), who find that stock trading after CEO interviews on CNBC is positively related to attractive anchorwoman and more male viewership.

Hypothesis 1 More attractive CEOs (measured by a higher Facial Attractiveness Index) receive higher compensation.

The second hypothesis relates to the existence of the value enhancing effect of CEO appearance. Barberis, Mukherjee, and Wang (2013) find that returns can be explained by investors' first impressions of the stock. If CEO appearance indeed matters for shareholder value, a natural starting point to gauge this effect is to examine the stock price reaction to the CEO's first day on the job, as many form their first impressions of the CEO at that time. More formally:

Hypothesis 2 More attractive CEOs are associated with better stock returns around their first day on the job.

The above hypothesis discusses the existence of the value enhancing effect of CEO appearance, if any. But a natural follow-up question is why CEO attractiveness creates value for shareholders. The following two hypotheses aim to answer this question.

First, it is well established in the psychology literature that more attractive people receive better treatment in a variety of settings (Hosoda et al. (2003), Langlois et al. (2000)). Further, studies show that more attractive people are better negotiators and receive a higher surplus in negotiations (Rosenblat (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 be better negotiators and thus enhance shareholder value in corporate events that require better negotiation skills, such as M&As. We therefore hypothesize that more attractive CEOs create value for shareholders in M&As through the negotiating channel:

Hypothesis 3 (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 psychology literature suggests that people are likely to form their perceptions and expectations of an individual based on his or her attractiveness (Berger et al. (1972), Umberson and Hughes (1987)). In the context of finance, CEOs are often perceived as the embodiment of the firm and are indeed the principal corporate decision makers. Therefore, more attractive CEOs are likely to create better images not only for themselves but also for the firm, thus enhancing shareholder value. If, indeed, visibility is an important channel for attractive CEOs to create positive images about the firm and thus creates value, we should expect a positive relation between CEO appearance and stock prices on days when the CEO's image appears on television. Therefore:

Hypothesis 4 (Visibility Channel): More attractive CEOs are associated with better stock returns when the CEO's image appears on television.

B. Related Literature

A vast psychology literature examines how appearance affects various types of individual and social outcomes. 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, studies find that more attractive people receive various positive individual outcomes, such as income (Hamermesh and Biddle (1994)), achievements, psychological well-being (Umberson and Hughes (1987)), and peer recognition (Kennedy (1990)). In the finance literature, Duarte, Siegel, and Young (2012) and Ravina (2012) find that more trustworthy and/or beautiful borrowers are more likely to secure their loans and pay lower interest rates. Pareek and Zuckerman (2013) show that more trustworthy hedge fund managers attract greater fund flows, are more likely to survive, but don't possess better skills.

Despite the well documented evidence on how appearance affects personal finance and investments, fewer studies examine the appearance effects on the corporation side; nor do they provide deterministic findings. In the seminal work, Graham, Harvey and Puri (2010) find that more attractive CEOs receive higher compensation, but don't seem to improve firm performance. In the psychology literature, by selecting 50 companies that were listed in the Forbes 500 Companies in 2006, Rule and Ambady (2008) find a positive correlation between CEO appearance and corporate profits. In contrast to their study, by studying 677 CEOs from the S&P 500 firms between 2000 and 2012, we conduct a large-sample analysis and thus provide more systematic evidence on the effects of CEO appearance. Further, we perform robustness tests that mitigate potential endogeneity concerns. Finally, we investigate the sources of the CEO appearance effect and find that negotiating and visibility channels help explain these findings.

II. Data

A. Sample

The selection of our sample begins with the intersection of the *Execucomp Annual Compensation* file and the *Compustat North America Fundamentals Annual* file. Both data are available on *Wharton Research Data Services (WRDS)*. Because we rely on *Google.com* image searches to compute the Facial Attractiveness Index of CEOs, we restrict the sample period to be between 2000 and 2012 and only include firms that are in the S&P 500 index in *Execucomp*. These two screening processes 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 its gained general popularity. These screens result in 820 unique firm-CEO combinations. After eliminating observations with missing firm

or CEO level data, our sample consists of 3,759 firm-year observations that are associated with 361 firms and 677 CEOs. Table I provides variable definitions.

[Table I goes here]

B. Measuring CEOs' Facial Attractiveness

The effects of perceived facial attractiveness has been well studied in the psychology literature (Cunningham (1986), Cunningham, Barbee, and Pike (1990), Cunningham et al. (1995), Rhodes and Tremewan (1996), Rhodes et al. (1998), Rhodes, Sumich, and Byatt (1999)). A majority of this literature measures facial attractiveness based on ratings given by survey respondents. Recently, biostatisticians are starting to use facial geometry calculated from standard images to measure facial attractiveness. For example, using neoclassical cannons, symmetry, and golden ratios, Schmid, Marx, and Samal (2008) take facial measurements from different landmarks on the face and compute facial attractiveness scores accordingly.[4] In this paper, we calculate the Facial Attractive Index of CEOs from *anaface.com*, which uses similar techniques to those used by Schmid, Marx, and Samal (2008). The "frequently Asked Questions" section on the website provides the following information regarding 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).

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

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, and the ratio of mouth width to nose width.

[Figure 1 goes here]

This geometry-based facial attractiveness measure provides the following advantages: (1) this measure is based purely on facial geometry and excludes more subjective criteria such as eye color, skin color, and complexion, thus avoiding potential selective perception bias commonly seen in survey-based measures, and (2) this measure is easy to quantify using geometry and mathematics.

A potential limitation of the measure from the *anaface.com* is the precision requirements on the CEO photos. The uploaded CEOs' photos need to have (1) sufficient resolution, (2) the CEOs face is looking directly at the camera, and (3) each of the facial landmarks required by *anaface.com* is visible.[5] We collect photographs for each of the 820 CEOs in our initial sample by conducting image searches on *Google.com*. We are able to carefully select a single image for 677 of the 820 CEOs that satisfy the requirement of *anaface.com's* algorithm.

Table II reports the summary statistics. The CEO Facial Attractiveness Index (*FAI*) ranges from 4.01 to 8.80 with an average score of 7.29 (The maximum score is 10). As for other CEO characteristics, the average annual compensation is $10.34 million and the average CEO age is 56 years old. As for firm characteristics, the average *Total Assets* is $21.88 billion, reflecting our sample selection criteria that focus on large U.S. public companies. Finally, it is

[5] 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.

likely that certain types of firms or firms in certain industries tend to hire more attractive CEOs. In unreported results, we do not find that the *FAI* measure is related to observable firm characteristics, including industry fixed effects.

[Table II goes here]

III. Empirical Results

A. CEO Attractiveness and Compensation

Graham, Harvey, and Puri (2010) find a positive relation between CEO attractiveness and compensation. We begin our investigation by examining the relation between a CEO's annual *Total compensation* and his or her Facial Attractiveness Index (*FAI*) using panel regressions. The regressions include firm fixed-effects to control for firm specific time-invariant factor(s). As reported in Table III, we find a positive relation between *FAI* and *Total compensation*, indicating that more attractive CEOs receive higher annual total compensation. Further, this result is robust to different models using the natural logarithm of *FAI* as the main explanatory variable and/or using the natural logarithm of 1+*Total compensation* as the dependent variable.

This positive relation between CEO attractiveness and compensation could be the result of more attractive CEOs having better negotiating skills, enabling them to extract higher rents from shareholders without further implications that they create value for shareholders. On the other hand, this positive relation may also reflect the value of more attractive CEOs who are able to improve shareholder value. In order to test these possibilities, the remainder of the paper explores whether more attractive CEOs enhance shareholder value. Since all the results described in the following sections are robust to using either the natural logarithm of *FAI (Log(FAI))* or *FAI*, we will only present the results using *Log(FAI)*.

[Table III goes here]

B. CEO Attractiveness and Stock Returns around CEOs' First Day on the Job

Whereas Section III.A examines the relationship between CEO attractiveness and compensation, this section examines the relationship between *FAI* and shareholder value. The frequent interactions between CEOs and compensation committees make it possible for more attractive CEOs to charm the committees into paying them more (consistent with the negotiating hypothesis). However, we would not expect that more attractive CEOs are able to charm the majority of shareholders. If more attractive CEOs charm the compensation committee at the expense of shareholders, we would expect to see a negative relation between *FAI* and stock returns surrounding the CEO's first day on the job. Otherwise, a positive relation between the *FAI* of new CEOs and stock returns surrounding CEO turnover indicates that shareholders perceive more attractive CEOs to be more valuable.

Table IV presents regressions of cumulative abnormal returns surrounding a CEO's first day on the job on *FAI*. To ensure the robustness of the results, we control for multiple event windows. Abnormal returns are calculated using the market-model estimated over 255 trading days, ending 46 trading days before the event date.[6] We find that *FAI* has a positive and significant impact on stock returns surrounding the first day when the CEO is on the job, indicating that shareholders seem to perceive more attractive CEOs to be more valuable. However, this result does not reveal why more attractive CEOs enhance shareholder value. Note also that this finding does not rule out the possibility that more attractive CEOs are indeed superior negotiators. The superior negotiating prowess of more attractive CEOs may be one of

[6] *Eventus*, which is available on *WRDS,* is used to calculate abnormal returns. The estimation window is the default setting for *Eventus*.

the reasons shareholders perceive them as more valuable. We further explore this negotiating hypothesis in detail in Section III.C.

[Table IV goes here]

C. CEO Attractiveness and Acquirer Returns

According to the negotiating hypothesis, if more attractive CEOs do indeed have greater negotiating skills, then we would expect more attractive CEOs to negotiate larger surpluses from M&A deals, ceteris paribus. That is, we would expect acquirers' stock returns surrounding M&A announcements to be positively correlated with *FAI*. In order to test this hypothesis, we rely on the acquirer information provided by the *Securities Data Company (SDC)*. Specifically, we identify all acquisition announcements that occurred during the CEO's tenure. We further exclude international acquisitions, acquisitions where 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 (*Transaction value*). The final sample contains 1,830 observations between 1985 and 2012.[7]

Table V shows the regressions results of abnormal acquirer returns surrounding the M&A announcements on the CEO's Facial Attractiveness Index. We also use multiple event windows to assess the robustness of the results. As before, the abnormal returns are calculated using the market-model estimated over 255 trading days while ending 46 trading days before the event date. We find a positive relation between the acquirers' stock returns surrounding the M&A announcement dates and the CEO's *FAI.* The evidence thus suggests that more attractive CEOs receive more surpluses for their firms from M&A transactions, a finding consistent with the

[7] Our sample contains CEOs who held their positions during 2000 to 2012, but some CEOs 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.

hypothesis that more attractive CEOs improve shareholder value through superior negotiating prowess.

[Table V goes here]

D. CEO Attractiveness and Stock Returns around News Events

This section explores whether more attractive CEOs improve shareholder value through public appearances (the visibility hypothesis). If more attractive CEOs create shareholder value by improving the public image of the firm, then we would expect a positive relation between CEO attractiveness and stock returns around CEOs' public appearances. Therefore, the first test in this section examines whether the CEO's Facial Attractiveness Index positively affects the stock returns around television news with the CEO's presence or containing the CEO's image.

We acknowledge that this test may be plagued by the typical endogeneity problem. For example, the visibility of more attractive CEOs might be correlated with unobservable variables, which are also correlated with stock returns. In this case, the interpretation of the results that the visibility of more attractive CEOs *causes* a higher shareholder value is misleading. In order to address this concern, we form a matched sample of non-television news events, i.e., news articles that contain information on the same group of CEOs as in the television news events, but do not include any image of the CEOs. We further restrict that these non-television news events occur within 15 days before or after each CEO television news event date. By comparing the effect of CEO attractiveness on stock returns around the television news events to the stock returns around the matched non-television event dates, we are able to mitigate potential confounding effects. In addition, if the visibility of more attractive CEOs creates value for shareholders through the visibility channel, we would expect *FAI* to have an insignificant effect on stock returns around the matched non-television news days.

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 be between 2008 and 2012. We additionally require that each television news event air during the CEO's tenure.

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.[8] To ensure that our print news event is not a transcript from television news, we exclude new 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 exclude print news articles with CEOs' images. Finally, to ensure that the effects of the visibility of CEOs' attractiveness are not contaminated, we exclude those television (print) news events that are within the print (television) news event windows. Our final sample of "clean" television (print) news events contain 945 (1,587) observations based on a (0,0) event window.

Table VI presents the OLS regressions of abnormal stock returns surrounding the news announcements on *Log(FAI)* for multiple event windows. As shown in Table VI, the relation between stock returns and *Log(FAI)* on television news days is positive and statistically significant, while the relation between stock returns and *Log(FAI)* on print news days is

[8] *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.

insignificant. Further, the coefficient on *Log(FAI)* in the television news regression is seven times larger in magnitude than the coefficient on *Log(FAI)* in the print news regression.[9]

To further ensure that our facial attractiveness measure does not represent an unobservable, time-invariant factor that may drive the above result, in Table VI we also investigate the effect of *Log(FAI)* on the cumulative abnormal returns on the (-1,0) window. CEO attractiveness does not have a significant effect on the stock returns on the date before both the television and print news events, thus greatly reducing the possibility that the Facial Attractiveness Index might proxy for some unobservable factor(s). Overall, the evidence suggests that shareholders respond positively to viewing more attractive CEOs after controlling for the potential endogeneity issue; this result is thus consistent with more attractive CEOs improving shareholder value through the visibility channel.

[Table VI goes here]

IV. 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 find that more attractive CEOs receive higher total compensation, consistent with the well documented "beauty premium" on pay. We further document the existence of the CEO appearance effects on shareholder value by showing that more attractive CEOs are associated with better stock returns around their first days on the job. Finally, we hypothesize and test two channels through which more attractive CEOs enhance shareholder value: negotiating and

[9] Instead of testing the difference between the coefficients using a *t-test,* we run OLS regressions that including a TV dummy and an interaction term TV**Log(FAI)*. We find a positive and significant coefficient (t=2.46) on the interaction term on news event days, suggesting that shareholders respond positively to the visibility of more attractive CEOs.

visibility. To test the negotiating channel, we examine the stock price reaction around M&A announcement dates and find a positive and significant CEO attractiveness effect on acquirer returns. We test the visibility channel by investigating the stock price reaction around CEO television news event dates and find that more attractive CEOs are associated with better stock returns around 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. This result mitigates endogeneity concerns when interpreting our findings. Overall, our findings suggest that more attractive CEOs have higher compensation because they create more 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.

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Figure 1

This figure presents a screen shot of *anaface.com*. The photograph is the default image provided by anaface.com.

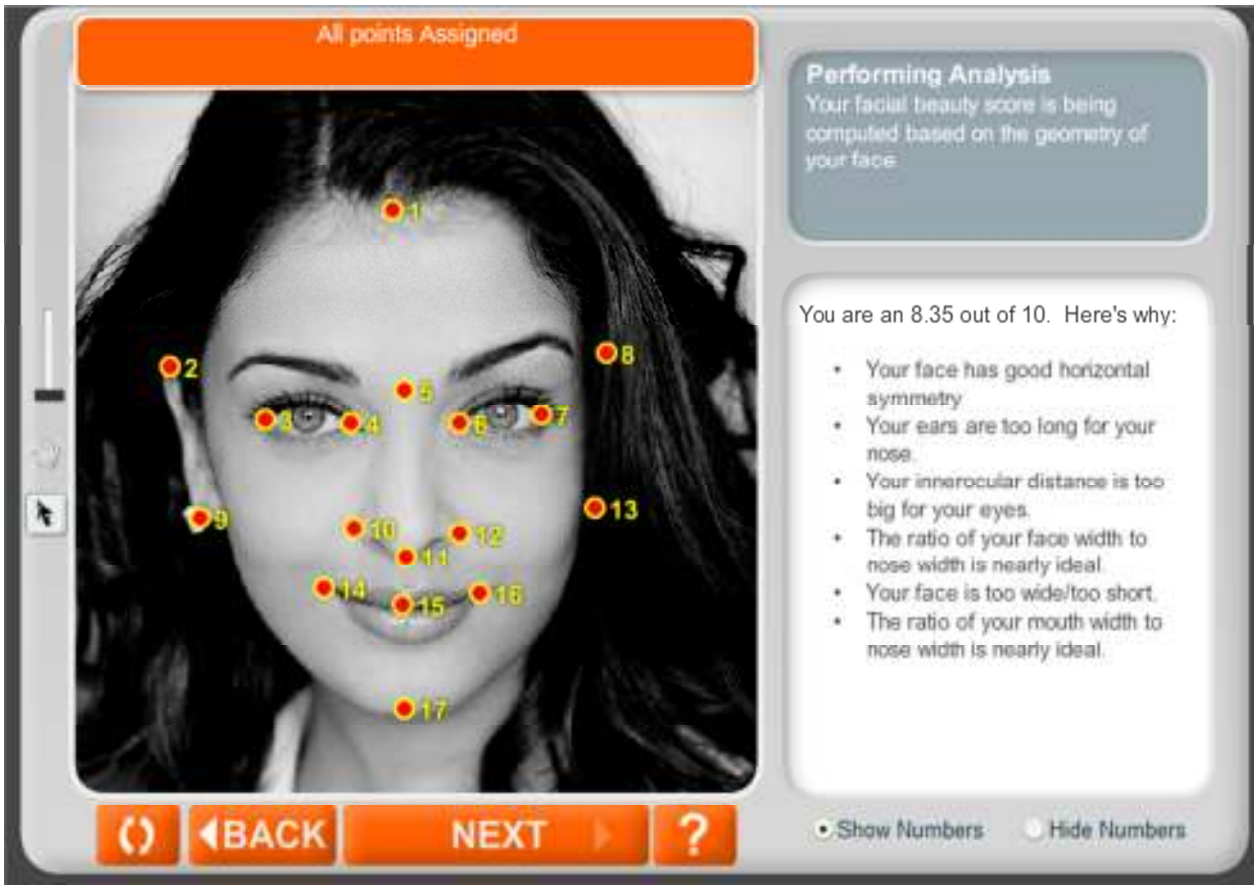

Table I. Variable definitions

This table describes the major variables used in the paper. The first column presents the variable names used throughout the paper. 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*
Total assets	Total book assets in millions (Compustat Variable: AT)	*Compustat*
Size	Market value of equity (in millions; CRSP Variable: ABS(PRC*SHROUT)/1000)	*CRSP*
Leverage	The ratio of total liabilities (Compustat Variable: LT) and total assets (Compustat Variable: AT)	*Compustat*
MTB (equity)	Market value equity to book value of equity (Compustat Variable: CSHO*PRCC_F/(AT-LT))	*Compustat*
$MTB(assets)_{t-1}$	Market value of assets to book value of assets (Compustat Variable: (CSHO*PRCC_F + AT-CEQ)/AT)) corresponding to year t-1	*Compustat*
$Stock\ Return_t$	The firm's annual stock return from year t	*CRSP*
$Stock\ Return_{t-1}$	The firm's annual stock return from year t-1	*CRSP*
ROA_t	The ratio of the firm's income before extraordinary items for year t and total assets for year t-1 (Compustat Variable: IB/AT)	*Compustat*
ROA_{t-1}	The ratio of the firm's income before extraordinary items for t-1 and total assets for year t-2 (Compustat Variable: IB/AT)	*Compustat*
$SD(returns_t)$	The annualize monthly standard deviation of the firm's stock return computed over the prior 12 months	*CRSP*
Total Compensation	Total CEO compensation (Execucomp Variable: TDC1) in thousands	*Execucomp*
Female	A binary variable equal to 1 if the CEO is female (Execucomp Variable: GENDER)	*Execucomp*

Age	The age of the CEO in years (Execucomp Variable: AGE)	*Execucomp*
Transaction value	The ratio of the transaction value to *Size*	*SDC*
Public	An indicator variable if the target is a public company	*SDC*

Table II. Summary statistics

This table presents summary statistics for each of the major variables used in the paper. The table includes the 3,759 firm-year observations described in Section II. Each of the variables is described in Table I.

	N	Mean	SD	Min	Q1	Median	Q3	Max
FAI	3759	7.29	0.68	4.01	6.83	7.35	7.75	8.80
Total assets	3759	21,880	52,993	82	3,658	8,177	19,512	797,769
Leverage	3759	0.55	0.20	0.04	0.43	0.55	0.66	1.88
$MTB(assets)_{t-1}$	3759	2.45	2.29	0.75	1.42	1.91	2.80	78.56
$Stock\ Return_t$	3759	0.15	0.43	-0.86	-0.09	0.11	0.34	5.22
$Stock\ Return_{t-1}$	3759	0.17	0.52	-0.94	-0.10	0.11	0.35	7.95
ROA_t	3759	0.08	0.10	-1.18	0.04	0.08	0.12	1.79
ROA_{t-1}	3759	0.08	0.11	-2.94	0.04	0.08	0.12	1.79
$SD(returns_t)$	3759	0.32	0.18	0.07	0.20	0.28	0.39	1.86
Total compensation	3759	10,336	14,281	0	4,734	7,707	12,301	600,347
Age	3759	56	7	36	51	56	60	84

Table III. CEO Appearance and Compensation

In this table, we report a panel regression of the natural logarithm of 1+*Total compensation (Log(1+Total Compensation))* on the natural logarithm of *FAI* (*Log(FAI)*) and control variables, controlling for firm fixed-effects. Industry is defined using the 2-digit SIC codes. Standard errors are robust to heteroskedasticity and within CEO correlation (clustered standard errors); *t-statistics* are reported in the parenthesis where ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels. The control variables are described in Table I.

Dependent Variable	*Log(1+Total compensation)*		*Total compensation*	
Log(FAI)	0.511**		5986**	
	(2.430)		(2.178)	
FAI		0.077**		873**
		(2.439)		(2.139)
Log(Total assets)	0.226*	0.226	932	927
	(1.653)	(1.647)	(0.513)	(0.510)
Leverage	-0.764***	-0.767***	-5544**	-5570**
	(-2.693)	(-2.703)	(-2.231)	(-2.245)
$MTB(assets)_{t-1}$	0.003	0.002	-209	-210
	(0.107)	(0.102)	(-0.517)	(-0.519)
$Stock\ Return_t$	0.031	0.031	-355	-354
	(0.380)	(0.381)	(-0.259)	(-0.259)
$Stock\ Return_{t-1}$	0.065	0.065	1156***	1157***
	(1.532)	(1.537)	(3.365)	(3.370)
ROA_t	0.895**	0.895**	5525**	5535**
	(2.416)	(2.420)	(2.137)	(2.141)
ROA_{t-1}	0.337	0.337	3064	3059
	(1.575)	(1.573)	(1.124)	(1.122)
$SD(returns_t)$	-0.086	-0.086	7563	7574
	(-0.522)	(-0.518)	(1.208)	(1.210)
Female	-0.070	-0.069	-592	-589
	(-0.747)	(-0.732)	(-0.534)	(-0.526)
Age	0.003	0.003	39.8	40.4

	(0.517)	(0.530)	(0.560)	(0.569)
Intercept	5.781***	6.234***	-9297	-3774
	(3.806)	(4.207)	(-0.435)	(-0.184)
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
N	3,759	3,761	3,760	3,762
R-squared	0.580	0.580	0.312	0.312

Table IV. CEO Appearance and Stock Price Reactions around the CEO's First Day on the Job

In this table, we present regression analysis of cumulative abnormal returns (relative to the market-model) surrounding the CEO turnover on the natural logarithm of *FAI* (*Log (FAI)*). Various event windows (-day(s), +day(s)) are reported. Industry is defined using the 2-digit SIC codes. Standard errors are robust to heteroskedasticity and within CEO correlation (clustered standard errors); *t-statistics* are reported in the parenthesis where ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels. The control variables are described in Table I.

CAR	(-1,1)	(-2,2)	(-3,3)	(-5,5)
Log(FAI)	0.051**	0.091**	0.104***	0.112**
	(2.142)	(2.562)	(2.746)	(2.498)
Log(Size)	-0.002	-0.003	-0.003	0.001
	(-0.905)	(-1.359)	(-0.813)	(0.267)
MTB (equity)	-0.000	-0.001**	-0.001***	-0.001***
	(-0.863)	(-2.504)	(-2.860)	(-2.839)
Stock Return$_t$	-0.010	-0.013	-0.012	-0.021*
	(-1.501)	(-1.294)	(-1.194)	(-1.656)
Leverage	0.011	-0.003	0.007	0.025
	(0.824)	(-0.225)	(0.393)	(1.106)
Female	0.011	0.009	-0.004	0.003
	(0.855)	(0.593)	(-0.299)	(0.155)
Age	-0.000	-0.001*	-0.002***	-0.001*
	(-1.080)	(-1.790)	(-2.615)	(-1.870)
Intercept	-0.068	-0.097	-0.130	-0.170
	(-1.208)	(-1.243)	(-1.582)	(-1.626)
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
N	537	537	537	537
R-squared	0.155	0.149	0.174	0.195

Table V: CEO Appearance and Acquirer Returns around Mergers and Acquisitions

This table presents regression analysis of cumulative abnormal Acquirer returns (relative to the market-model) surrounding M&A announcements on the natural logarithm of *FAI* (*Log (FAI)*). Industry is defined using the 2-digit SIC codes. Various event windows (-day(s), +day(s)) are reported. Standard errors are robust to heteroskedasticity and within CEO correlation (clustered standard errors); *t-statistics* are reported in the parenthesis where ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels. The control variables are described in Table I.

CAR	(-1,1)	(-2,2)	(-3,3)	(-5,5)
Log(FAI)	0.022	0.038**	0.038*	0.043*
	(1.483)	(2.108)	(1.738)	(1.809)
Log(Size)	-0.002**	-0.004***	-0.005***	-0.005***
	(-2.291)	(-2.764)	(-3.380)	(-2.957)
MTB (equity)	-0.000	0.000	0.000	0.000
	(-0.287)	(0.448)	(1.052)	(0.004)
Stock Return$_t$	-0.004***	-0.008***	-0.008***	-0.006
	(-2.844)	(-4.234)	(-3.265)	(-1.278)
Leverage	0.001	-0.005	-0.002	-0.009
	(0.069)	(-0.542)	(-0.244)	(-0.817)
Female	-0.016**	-0.013	-0.013*	-0.014
	(-2.472)	(-1.130)	(-1.824)	(-1.625)
Age	-0.000	-0.000	0.000	0.000
	(-0.326)	(-0.471)	(0.489)	(0.717)
Transaction value	0.001	0.001	-0.000	0.001
	(0.508)	(0.281)	(-0.178)	(0.358)
Public	-0.015***	-0.015***	-0.016***	-0.016***
	(-5.368)	(-4.268)	(-4.127)	(-3.977)
Intercept	-0.015	-0.026	-0.039	-0.047
	(-0.445)	(-0.580)	(-0.749)	(-0.798)
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes

N	1,830	1,830	1,830	1,830
R-squared	0.085	0.087	0.092	0.093

Table VI: CEO Appearance and Stock Price Reactions around News events

In this table, we report regression analysis of cumulative abnormal returns (relative to the market-model) surrounding television news events and print news events on the natural logarithm of *FAI* (*Log(FAI)*). Various event windows (-day(s), +day(s)) are reported. Industry is defined using the 2-digit SIC codes. We search TV 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 are restricted to +/- 15 days surrounding TV news events. TV (print) news events that are within the event window of print (TV) news events are removed. Print news stories that contain photographs are 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 parenthesis where ***, **, and * signify statistical significance at the 1%, 5%, and 10% levels. The control variables are described in Table I.

	Television		News Article	
	(-1,0)	(0,0)	(-1,0)	(0,0)
Log(FAI)	0.019	0.035***	0.010	0.005
	(1.399)	(2.948)	(0.780)	(0.816)
Log(Size)	-0.001	-0.001	-0.003**	-0.002**
	(-0.583)	(-1.038)	(-2.009)	(-2.226)
MTB (equity)	0.000***	0.000	0.000	0.000**
	(4.601)	(1.180)	(0.443)	(2.203)
Stock Return$_t$	-0.003*	0.003*	-0.007**	-0.002
	(-1.920)	(1.948)	(-2.222)	(-0.944)
Leverage	0.019**	0.023***	0.012	0.005
	(2.458)	(4.259)	(1.621)	(1.127)
Female	0.000	-0.004	0.000	-0.001
	(0.057)	(-1.578)	(1.009)	(-0.475)
Age	-0.007	0.000	-0.010	0.000
	(-1.339)	(0.339)	(-1.424)	(0.095)
Intercept	-0.039	-0.080***	-0.010	0.010
	(-1.318)	(-2.968)	(-0.404)	(0.696)
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes

N	875	945	1,422	1,587
R-squared	0.107	0.044	0.100	0.028