Executive Extraversion: Career and Firm Outcomes

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Internet Appendix

This appendix consists of three parts. Section IA.1 provides methodological details for the linguistic algorithms we use to measure executive extraversion. Section IA.2 compares the linguistic algorithms to observer-assessed ratings of extraversion. Section IA.3 presents additional analysis and robustness checks.

IA.1 Linguistic Algorithms

Researchers in psycholinguistics and artificial intelligence have developed personality models based on linguistic outputs (e.g., Argamon et al., 2005; Oberlander and Nowson, 2006; Mairesse et al., 2007). Developing these models involves four steps.[1] First, a training dataset is collected that contains written or spoken language of individuals along with the predictive variables of interest (e.g., survey or observer ratings of personality). Second, a feature set is chosen that defines the linguistic characteristics that will be used to develop the prediction model. A common approach is to use Linguistic Inquiry and Word Count (LIWC) categories, which includes both syntactic features (e.g., ratio of pronouns) and semantic information (e.g., positive emotion words) (Pennebaker, Francis, and Booth, 2001).

In the third step, statistical learning algorithms are chosen to maximize out-of-sample predictive power. Common supervised learning approaches include support vector machines and decision trees. These algorithms take as input the observed features in the training corpus and

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[1] See Manning and Schütze (1999) and Hastie, Tibshirani, and Friedman (2009) for references on natural language processing and statistical learning.

develop models according to a specified loss function. Lastly, models are evaluated and selected based on their estimated out-of-sample predictive power. A common evaluation method is k-fold cross validation, where the training corpus is randomly divided into k equal subsamples and each subsample takes a turn acting as the out-of-sample data, with the $k-1$ remaining subsamples used as the training data.

Mairesse et al. (2007) estimate personality ratings using training data from the conversation extracts of 96 participants (97,468 words and 15,269 utterances) recorded using Electronically Activated Recorders (EAR) (Mehl et al., 2001). Personality ratings (on a 7-point scale) are obtained for each participant from 18 independent observers who have access to both sound extracts and conversation transcripts. Mairesse et al. (2007) characterize each participant's communication style using 88 linguistic features from the LIWC database (Pennebaker, Francis, and Booth, 2001) and 14 features from the MRC Psycholinguistic database (Coltheart, 1981).[2] They provide personality recognition models fitted to the speech conversations using statistical learning models that maximize out-of-sample predictive ability (10-fold cross-validation), with feature counts standardized within sample. We average across the estimates of the four trained models provided by Mairesse et al. (2007) to measure executive extraversion for our sample conference call dialogue.[3] The algorithms consist of two linear regression methods and two tree-based approaches.

The four linguistic algorithms each implement regression models where the dependent variable is the extraversion score of the individual and the explanatory variables are word

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[2] More information on the LIWC and MRC categories can be found at http://www.liwc.net/descriptiontable1.php and http://websites.psychology.uwa.edu.au/school/MRCDatabase/mrc2.html.

[3] Our findings are qualitatively similar using any of the four algorithms. Trained model files for the Weka toolkit (Witten and Frank, 2005) are available at: http://farm2.user.srcf.net/research/personality/recognizer. All algorithms are fit using Weka default parameters.

categories from the LIWC (Pennebaker et al., 2001) and MRC linguistic databases (Coltheart, 1981). Features include variables like the frequency of the use of different pronouns (i.e., "I" versus "We"), the use of articles, the use of assent words (e.g., agree, ok, yes), the total number of words used, the ratio of unique words to total words (i.e., the type/token ratio), the total number of words used longer than six letters, the tendency to use negations, the tendency to use positive or negative emotion words, the use of imagery words, etc.[4] Since there are a large number of LIWC and MRC features, the algorithms employ feature selection methods to select informative linguistic categories. For example, the linear regression algorithm iteratively removes features with the smallest standardized coefficients based on the Akaike information criterion (AIC), while tree-based algorithms use a simplification procedure ("pruning") to mitigate over-fitting (see Appendix B). The algorithms use feature counts that are standardized within the provided set of texts. This improves generalizability to language domains with different linguistic distributions.

We describe each of the four estimation methodologies in more detail below.

IA1.1 Linear Regression Methods

IA1.1.1 Linear Regression (LR)

The linear regression model performs a least-squares regression with feature selection. The selection algorithm iteratively removes features with the smallest standardized coefficient until no improvement is observed with the error, as given by the Akaike information criterion (AIC).

IA1.1.2 Support Vector Machine Regression (SVR)

The support vector regression is based on the classical support vector machine classifier that finds the hyperplane with the greatest separating margin between itself and the nearest data

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[4] A complete list of the LIWC and MRC features can be found in Table 6 of Mairesse et al. (2007).

point of each class. It bears the main features that characterize the maximal margin algorithm: a (possibly non-linear) function is learned by a linear learning machine that reduces weight on outliers, while the capacity of the system is controlled by a parameter that does not depend on the dimensionality of the space.

Consider the problem of approximating the set of training data $D = \{(x_i, y_i)| = 1, 2, \ldots, N\}$ of input vectors $x_i \in \mathbb{R}^p$ and targets $y_i \in \mathbb{R}$ with a linear function,

$$f(x) = w \cdot x + b$$

The most common form of support vector regression uses an ϵ-insensitive loss function (Vapnik et al., 1997),[5] which has the following form:

$$L_\epsilon(y) = \begin{cases} 0 & \text{if } |f(x) - y| < \epsilon \\ |f(x) - y| - \epsilon, & \text{otherwise} \end{cases}$$

The regression algorithm minimizes the norm $\|w\|^2 = w \cdot w$ to fit as "flat" of a function as possible. The optimal regression function is given by the following optimization problem.

$$\min \quad \frac{1}{2}\|w\|^2 + C \sum_i (\xi_i + \xi_i^*)$$

$$\text{subject to} \quad \begin{cases} y_i - w \cdot x_i - b \leq \epsilon + \xi_i \\ w \cdot x_i + b - y_i \leq \epsilon + \xi_i^* \\ \xi_i, \xi_i^* \geq 0 \end{cases}$$

This is a convex optimization problem where ξ_i, ξ_i^* are slack variables and the constant $C > 0$ determines the trade-off between the flatness of f and the amount up to which deviations larger than ϵ are tolerated. For computational reasons, the optimization problem is often solved in its dual

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[5] This loss function is closely related to the Huber (1964) loss function used in robust regression in statistics, which has optimal properties when the underlying distribution of the data is unknown. However, the epsilon-insensitive loss function is more computationally tractable as it enables a sparse set of support vectors to be obtained.

form (rather than the above primal form).[6] Non-linear functions can also be estimated by using a kernel function to map training data into a high-dimensional feature space, and then performing a linear regression in this space.

IA.1.2 Tree-based Methods

IA.1.2.1 M5' Model Tree (M5P)

The M5' model tree, based on the M5 learning algorithm (Quinlan, 1992)[7], is part of a broad class of tree-based methods that are known for their simplicity and efficiency when dealing with domains with large numbers of features.[8] A standard regression tree partitions the feature space X into disjoint regions D_i and provides a fitted value $k_i = E(y|x \in D_i)$ within each region. This can be expressed as a simple additive model of the form,

$$m(x) = \sum_i k_i \times I(x \in D_i)$$

where $I(\cdot)$ is an indicator function for whether an observed vector of features $x \in X$ is in partition D_i. To construct a tree, M5P follows a splitting procedure at each node that maximizes the expected error reduction,

$$\Delta error = sd(T) - \sum_j \frac{|T_j|}{|T|} \times sd(T_j)$$

where T is the set of training cases that reach the node, $T_1, T_2, \dots$ are the sets that result from splitting the node according to the chosen feature, and $sd(.)$ is the standard deviation of the dependent variables in the set.

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[6] See Smola and Scholkopf (2004) and Keerthi et al. (2001) for details on the sequential minimal optimization (SMO) algorithm, which is the implementation used to solve the SVM regression problem for our estimates.
[7] The M5' extension makes improvements to the original M5 algorithm such as modifying how enumerated attributes and missing values are treated. See Wang and Witten (1997) for details.
[8] See Breiman et al. (1984) for a reference on classification and regression trees.

Regression trees can be conveniently represented as tree diagrams where the path at each node is a logical test on a feature that leads to a final value at the tree leaves. The M5P constructs tree-based models, but whereas regression trees have constants in the tree leaves, the model tree extends this to have leaf nodes containing regression models. In other words, the M5' model tree is analogous to piecewise linear functions.

After a tree has been constructed, it undergoes a simplification process called "pruning" to mitigate overfitting. During this process, the algorithm examines each node from the bottom up and selects as the final model for each node either the simplified linear model above or the model subtree, depending on which has the lower estimated error. A final stage is to use a "smoothing" procedure to reduce sharp discontinuities among the leaf node predictions. M5P uses the smoothing calculation

$$p' = \frac{np + kq}{n + k}$$

where p' is the prediction passed up to the next higher node, p is the prediction passed to this node from below, q is the value predicted at this node, n is the number of training instances that reach the node below, and k is a smoothing constant.

IA.1.2.2 M5' Regression Tree (M5R)

The M5' regression tree is a special case of M5P that restricts the leaf nodes to be constant values as in traditional regression trees. It shares the same splitting, pruning, and smoothing procedures as the M5P model.

IA.2 Comparing Linguistic Algorithms to Observer-Assessed Ratings of Extraversion

An important advantage of using linguistic algorithms to infer extraversion is that they can be applied to a large sample of executives in an objective manner. An alternative approach,

commonly used in the psychology literature, is to obtain observer assessments of personality. An advantage of survey-based assessments is that observers may incorporate information not contained in the call transcripts (e.g., pitch tone or variation, rate of speech, etc.), and thus may more accurately capture extraversion. However, observer-based assessments are difficult to objectively replicate, and more importantly, they are not practical for large samples of executives.

Nevertheless, to help bolster the validity of our linguistic measure, we compare our textual algorithm to observer assessments for a subset of the sample. In particular, we gather audio excerpts for 100 conference calls from Earningscast.com. We choose calls for the 50 most extraverted and 50 least extraverted CEOs in our initial sample that have conference call audio files available from Earningscast.[9] For each CEO, we select the most recent call available during our sample period, and from within each call we create an audio excerpt from the CEOs' response to the first question during the Q&A portion of the call. We require CEOs to speak at least 25 words during the response, and we truncate longer audio excerpts at roughly one minute (e.g., near the end of a sentence, etc.). The average audio response length is 42 seconds (minimum of 9 seconds and maximum of 64 seconds) and contains 112 spoken words.

We ask BBA students to evaluate the level of extraversion for each executive using a 1 to 7 scale, based on the audio excerpt. Observers also have access to the written transcripts of the responses to the questions. We inform the evaluators that the audio responses are "executives responding to a question during earnings conference calls (these are public Q&A sessions that firms hold after announcing earnings)," and we provide them with the following definition of extraversion from Wikipedia:

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[9] We focus on executives with the highest and lowest extraversion scores to increase the likelihood that personality can be detected in one brief audio clip. However, this approach limits our ability to generalize the findings to the full sample of CEOs.

Extraversion is the act, state, or habit of being predominantly concerned with obtaining gratification from what is outside the self. Extraverts tend to enjoy human interactions and to be enthusiastic, talkative, assertive, and gregarious. Extraverts are energized and thrive off of being around other people. They take pleasure in activities that involve large social gatherings, such as parties, community activities, public demonstrations, and business or political groups. They also tend to work well in groups. An extraverted person is likely to enjoy time spent with people and find less reward in time spent alone. They tend to be energized when around other people, and they are more prone to boredom when they are by themselves.[10]

Each student evaluated 20 executives (10 extraverts and 10 introverts in random order), and we obtained three separate evaluations for each executive. Table IA.1 reports examples of executive responses rated most and least extraverted by the observers with links to corresponding audio files, along with whether the linguistic algorithm classifies the executive as extraverted or introverted. Anecdotally, the speech patterns of listener-rated extraverts generally corroborate the features emphasized by the linguistic algorithm. For example, the most extraverted excerpt in Section IA.2 of the Internet Appendix contains more emotionally-charged words (e.g., *wonderful, terrific, shame,* etc.) relative to the least extraverted excerpt. The extraverted quotes also have a greater word count (120 words vs. 82), less word uniqueness (71.6% type/token ratio vs. 74.4% for the least extraverted quote), and more words that score high on imageability. As a result, the linguistic algorithm agrees with the listener assessments in this binary example. The remainder of this section explores more systematic evidence across the 100 audio subsamples.

The first piece of supporting evidence from the audio subsample is that we find extraverted CEOs speak faster than introverts. A higher rate of speech for extraverts is one of the most frequently described aspects of personality on language (e.g., Furnham, 1990; and Feldstein and Sloan, 1984). We observe that extraverted CEOs, as implied by the transcript-only linguistic

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algorithm, speak 170.4 words per minute in the audio excerpts vs. 154.1 for introverts, and the difference in means is statistically significant at the 1% level.

Turning to the listening-based evaluations of extraversion, we follow the psycholinguistics literature and consider binary classification accuracy tests. We define the executive as *listener-based extraverted* if the average listener-based rating (across the three students) is in the top half of the distribution of listener-based scores. All other executives are defined as *listener-based introverted*. Similarly, we classify an executive as *algorithm-based extraverted* (*introverted*) if the executive is in the top (bottom) half of the distribution of extraversion based on the algorithms score. We find that our listener-based and algorithm-based measures agree with each other 68% of the time. If we limit the sample to more confident listener assessments, in which the average listener score is greater than or equal to five (extrovert) or less than or equal to three (introvert), the agreement between listeners and the linguistic algorithm rises to 75.0%. Both ratios are statistically different from the null of 50% at the 1% level. The economic magnitudes are generally in line with Mairesse et al. (2007), which estimates binary classification accuracies between observer ratings and various statistical models ranging from 59% to 73% (their Table 14). We find the correlation between the average listener extraversion score and our linguistic extraversion score is 0.40, and the average correlation between a single listener rating and other-observer average is 0.47.

Despite our rudimentary approach which relies on a single brief audio excerpt of at most one minute for each executive, the general agreement between listener assessments and our linguistic algorithm provides support for our measure of extraversion.

IA.3 Additional Analysis and Robustness Checks

IA.3.1 Persistence in Call Extraversion

In Specification 3 of Table 2 we document a significant increase in R-squared following the inclusion of manager fixed effects. This is consistent with extraversion being highly persistent at the manager level. However, in many cases we only observe the manager working for one firm, which points to the possibility that manager fixed effects are simply capturing a firm fixed effect. To distinguish between a manager and a firm fixed effect, we compare the persistence in extraversion for a sample of firms with and without manager turnover. In particular, we split the conference call sample into two periods, 2006-2009 and 2010-2013, and calculate separate executive extraversion scores (using a minimum of three calls) for each period. We then compare correlations of extraversion scores across the two sample periods for firms that do not experience a CEO change (i.e., a single CEO across the two periods) with firms that do experience a CEO change (i.e., multiple CEOs across the two periods). If extraversion is persistent over time at the manager level, we would expect to observe a higher correlation for the former group (same CEO, same firm) than for the latter group (different CEOs, same firm). We observe 1,170 firms with no CEO change and 645 firms with a CEO change in our sample.

Panel A of Table IA.2 compares correlations of extraversion scores across the two sample periods for firms that do not experience a CEO change (i.e., a single CEO across the two periods) with firms that do experience a CEO change (i.e., multiple CEOs across the two periods). If extraversion is persistent over time at the manager level, we would expect to observe a higher correlation for the former group (same CEO, same firm) than for the latter group (different CEOs, same firm).

In Table IA.2, Column 1 of Panel A indicates that the correlation in the extraversion score for the same CEO over the two sample periods is 0.75. Column 2 shows that the correlation in extraversion for the same firm with two different CEOs is 0.26. While both correlation estimates

are significantly greater than zero, the correlation between extraversion in the two periods is much lower for firms that experience a CEO change. The third column confirms that the persistence in call-level extraversion is significantly weaker following CEO turnover.[11] Panel B conducts analogous tests for the sample of CFOs and yields similar results. These findings indicate that managerial extraversion is distinct from firm-level extraversion.

Table IA.3 explore what types of firms are more likely to hire extraverted executives. Extraverts tend to be perceived as leaders (Lord et al., 1986; and Judge et al., 2002), and we conjecture that extraverts may obtain greater labor market success. In particular, we expect extraverts to be overrepresented at larger firms, as well as growth firms which tend to more visible, have greater investment opportunities, and offer higher executive compensation (Smith and Watts, 1992; and Murphy, 1999). Extraversion is also associated with greater risk taking (Zuckerman and Kuhlman, 2000), suggesting that extraverts may be attracted to riskier firms, such as younger firms or those with more volatile stock returns.

We estimate the following regression to examine the above predictions:

$Extraversion_i = \beta_1 \text{Ln}(Sales)_{it-1} + \beta_2 \text{Ln}(Q)_{it-1} + \beta_3 \text{Ln}(Firm\ Age)_{it-1} + \beta_4 \text{Ln}(Vol)_{it-1} + Ind_i + \varepsilon_{it.}$

$Extraversion_i$ is the weighted-average residual extraversion. Definitions of the independent variables are provided in Appendix A. Ind_i captures industry fixed effects as measured using the Fama and French (1997) 12 industry classification. All continuous variables are standardized to have mean 0 and variance 1 each year.

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[11] A more powerful test would be to examine the subset of managers that are CEOs for two different firms. Although our sample of CEOs who speak in conference calls for two different firms is small (19 observations), the correlation in measured extraversion for a given CEO across two firms is 0.76, consistent with persistence in extraversion over time for a given individual in different firm environments.

Specification 1 of Table IA.3 reports the results for new CEO hires before controlling for industry fixed effects. Consistent with our predictions, we find that extraverted executives are more likely to work for larger firms (as measured by *Sales*), more growth oriented firms (as measured by Tobin's *Q*), and riskier firms (as measured by *Volatility*). For example, a one standard deviation increase in *Ln(Sales)* is associated with a 0.28 standard deviation increase in CEO extraversion. However, we find no reliable evidence that extraverted CEOs are more likely to work at younger firms.

Specification 2 reports the results after including industry fixed effects. The relation between extraversion and firm characteristics is similar, although the coefficient on volatility is reduced to 0.06 and is no longer significant. We also find that extraverts are significantly less likely to work for utility firms. Specifications 3 and 4 report analogous results for CFOs. The CFO results are generally similar to the CEO results. Like CEOs, the most striking pattern for CFOs is the very strong relation between firm size and CFO extraversion.

IA.3.2 Extraversion and Executive Compensation - Robustness

In this section, we explore the robustness of the extraversion pay premium documented in Table 4. In the discussion that follows, we focus on the *Extraversion* coefficient from the full model that includes all controls and firm fixed effects (i.e., Specification 8 of Table 4) and we tabulate all results in Table IA.4. Panels A and B decompose CEO total compensation into cash versus equity compensation. We find that a one-standard deviation increase in extraversion is associated with a 2.53% (t=1.71) premium in cash salary and a 12.32% (t=2.45) increase in equity compensation. Panel C examines possible non-linearities by replacing *Extraversion* with extraversion quintile rankings. We find a largely linear compensation premium. Specifically,

relative to the executives in the bottom 20% of extraversion, the premium for being in the 2nd through 5th quintile of extraversion are: 0.69%, 8.98%, 8.89%, and 12.70%, respectively.

Panel D explores whether extraverted CFOs also experience a pay premium. We find that a one-standard deviation increase in CFO *Extraversion* is associated with a 9.07% (t=5.31) premium in CFO compensation. Finally, in Panel E, we examine whether CEO relative extraversion (*Relative Extraversion*), defined as CEO Extraversion – CFO Extraversion, predicts CEO *Relative Compensation*, defined as CEO Log (*Compensation*) – CFO Log (*Compensation*). We find that a one-standard deviation increase in *Relative Extraversion* is associated with a 9.25% (t=5.35) increase in *Relative Compensation*.

An additional concern is that *Extraversion* is based on all available calls over the executive's tenure with the firm. While the treatment of extraversion as a manager fixed effect offers significant methodological advantages, the use of forward-looking information raises concerns of reverse causality (i.e., executives who experience increases in compensation become more extraverted).

We explore this possibility by estimating the following panel regression:

$$\Delta Extraversion_{i,t+1} = \alpha + \beta_1 \Delta Comp_{i,t} + \beta_2 \Delta Comp_{i,t+1} + \varepsilon_{it.}$$

The dependent variable is the extraversion score based on all calls in year $t+1$ less the extraversion score for the same executive based on all calls in year t. $\Delta Comp_{t+1}$ measures the abnormal compensation in year $t+1$ less the abnormal compensation in year t. Abnormal compensation is based on the residuals from Specification 4 of Table 4 after excluding extraversion. We standardize all variables to have mean 0 and variance 1, and cluster standard errors by firm. In untabulated findings, we estimate β_1 to be 0.00 (t=0.04), and β_2 to be -0.01 (t=-0.93). Both coefficients are

economically small, and the negative coefficient on β_2 biases us against finding a compensation premium. These findings suggest reverse causality is not a substantial concern.

IA.3.3 Measurement of Executive Extraversion - Robustness

Throughout the paper, we estimate extraversion using the speech patterns of executives during the Q&A portion of the call. We focus on the Q&A portion because prior work suggests that the presentation portion of the call tends to be more scripted, and would thus be less well-suited for measuring executive personality. Nevertheless, in this section, we separately estimate extraversion from both the Q&A portion of the call (*Extraversion Q&A*) and the presentation portion of the call (*Extraversion Presentation*). For completeness, we also report the extraversion from both parts of the call (*Extraversion Full Call*).

We begin by examining the correlations of all three extraversion measures with each other, as well as with the listener-based assessment of extraversion (discussed in Section IA.2). Table IA.5 reports the correlation matrix. We find that *Extraversion Q&A* and *Extraversion Presentation* are significantly positively correlated (ρ=0.32). We also find that the listener assessment of Extraversion is significantly correlated with *Extraversion Q&A* (ρ=0.35), but is not significantly related to *Extraversion Presentation* (ρ =0.10). Further, in untabulated analysis, we find that the 0.35 correlation is significantly greater than the 0.10 correlation.

We next repeat all our main tests after augmenting all of the specifications with *Extraversion Presentation*. Thus, these tests explore whether *Extraversion Q&A* remains significant after controlling for *Extraversion Presentation*. They also offer insight into whether *Extraversion Presentation* has any incremental explanatory power. Table IA.6 reports the results.

For brevity, only the coefficient on *Extraversion Q&A* and *Extraversion Presentation* are tabulated.

Panels A-G reports the results for Tables 4-10 of the paper, respectively. We find that the coefficient on *Extraversion Presentation* is insignificant in most (but not all) specifications. More interestingly, in nearly all cases the coefficient on *Extraversion* remains statistically significant. In other words, CEO extraversion estimated from the Q&A portion of the call continues to be associated with labor market and firm outcomes even after controlling for CEO extraversion estimated from the more scripted part of the call.

We also explore whether the measurement of extraversion is sensitive to the weighting scheme used to compute *Extraversion*. In the main analyses, the extraversion score for executives is a weighted average measure of *Call Extraversion*, where each call is weighted by the number of words spoken in the Q&A portion of the call. We employ this weighting scheme because we expect that our estimates of extraversion will be more precisely estimated for longer calls. Nevertheless, as a robustness check, we also repeat all of our main analysis by computing an equal-weighted average measure of *Call Extraversion* (*EW Extraversion*). Panels A-G of Table IA.7 reports the results for Tables 4-10 of the paper, respectively. Overall, the results using *EW Extraversion* yield qualitatively similar results.

IA.3.4 The Mediating Role of Investor Recognition and Performance

The results from Table 8 of the paper indicate that following CEO turnover, increases in CEO extraversion are associated with higher compensation, increased investor recognition, and weak evidence of improved performance. In this section, we conduct mediation analysis to explore the extent to which the increased compensation can be explained by the improvements in firm outcomes.

Our initial set of mediating variables includes all variables in Table 8 that are correlated with extraversion at a 10% level in Specification 2. We next require that changes in the potential mediating variable around CEO turnover are significantly correlated with changes in CEO compensation. This reduces the set of mediating variables to only two: *Amihud Illiquidity and Conference Presentations.*

We limit the sample to the 608 CEO transitions with non-missing data for both the mediating variables and then estimate the following equations:

$$\Delta Comp_{it+3,t-1} = \beta_1 \Delta Extra_{it+3,t-1} + \boldsymbol{\beta \Delta CEOChar}_{it+3,t-1} + \varepsilon_{it} \,. \qquad \text{(IA.1)}$$

$$\Delta Amihud_{it+3,t-1} = \beta_2 \Delta Extra_{it+3,t-1} + \boldsymbol{\beta \Delta CEOChar}_{it+3,t-1} + \varepsilon_{it} \,. \qquad \text{(IA.2)}$$

$$\Delta Conf\ Pres_{it+3,t-1} = \beta_3 \Delta Extra_{it+3,t-1} + \boldsymbol{\beta \Delta CEOChar}_{it+3,t-1} + \varepsilon_{it} \,. \qquad \text{(IA.3)}$$

$$\Delta Comp_{it+3,t-1} = \beta_4 \Delta Extra_{it+3,t-1} + \beta_5 \Delta Amihud_{it+3,t-1} + \qquad \text{(IA.4)}$$
$$\beta_6 \Delta Conf\ Pres_{it+3,t-1} + \boldsymbol{\beta \Delta CEOChar}_{it+3,t-1} + \varepsilon_{it} \,.$$

Specifications 1 through 4 of Table IA.8 report the results of regressions IA.1-IA.4, respectively. Specification 1 indicates that the "total effect" of extraversion on compensation is 5.77%.[12] The indirect effect of extraversion on compensation through Amihud is given by $\beta_2 * \beta_5$ = 1.61%. Similarly, the indirect effect of extraversion on compensation through *Conference Presentations* is 0.67% ($\beta_3 * \beta_6$).[13] Collectively, the mediating variables account for about 40% of the total effect of extraversion on compensation (2.28%/5.77%). Further, the direct effect of extraversion on compensation (i.e., β_4) falls to a statistically insignificant 3.49%. Collectively, the

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[12] We note that this estimate differs from the 6.95% reported in Table 8 because we exclude 11 observations with missing data on one of the mediating variables.

[13] Using the Monte Carlo simulation method of Mackinnon, Lockwood, and Williams (2004) we find that both indirect effects are statistically significant at a 5% level.

evidence suggests that much of the extraversion pay premium can be attributed to improvements in firm outcomes.

IA.3.5 Extraversion and Age of First Appointment

This section examines whether extraverted executives are first promoted to CEO at an earlier age. We conjecture that executives with greater perceived ability will likely spend less time on the corporate ladder and reach these prestigious positions more quickly (Falato, Li, and Milbourn, 2015). Equivalently, the hurdle for appointing a young CEO is higher since such executives have less experience, and thus younger CEOs must have other perceived advantages to compensate for their lack of experience. We examine whether extraverted executives are promoted to CEO at an earlier age by estimating the following regression.

$$First\_Age_i = \beta_1 Extraversion_i + \gamma \boldsymbol{FirmChar} + \omega \boldsymbol{CEOChar} + Year_t + FE_i + \varepsilon_{it}.$$

First_Age is the age at which the executive was first appointed to CEO. ***FirmChar*** and ***CEOChar*** are defined as in equation 2 of the paper. *Year$_t$* denotes year fixed effects, where *t* is the calendar year in which the executive first becomes CEO (to control for systematic variation over time in the tendency to hire young CEOs). The independent variables are defined in Appendix A, and FE reflects either industry or firm fixed effects. The results from Table IA.9 indicate that a one standard deviation increase in extraversion is associated with being appointed to CEO 0.66 to 0.98 years earlier.

IA3.6 Extraversion and M&A Activity

In Table 10, we find that extraverted CEOs are associated with higher acquisition returns. In this section, we explore the related prediction that extraverted executives take on more acquisitions. We estimate the following regression:

$$MNA_{it} = \beta_1 Extraversion_i + \gamma FirmChar + \omega CEOChar + Year_t + IND_i + \varepsilon_{it}.$$

In Specifications 1 and 2 of Table IA.10, MNA_{it} is a dummy variable set equal to one if the firms conducts a merger or acquisition during the year. In Specifications 3 and 4, MNA_{it} is the total value of acquisitions scaled by total assets (in natural logs). **FirmChar** and **CEOChar** are defined as in equation 2 of the paper. $Year_t$ denotes year fixed effects and IND_i denotes industry fixed effects.

Specifications 1 and 2 of Table IA.10 report odds ratios from logistic regressions. The results indicate that a one standard deviation increase in extraversion is associated with an 8% to 13% increase in the likelihood of conducting an acquisition. Specifications 3 and 4 show that a one standard deviation increase in extraversion is associated with a 2.1-3.1% increase in the total value of acquisitions scaled by assets.

IA3.7 Additional Results

To increase the power of our tests around CEO transitions, in Table 8 we only require a valid extraversion score for either the incoming or departing CEO. In Table IA.11 we repeat the analysis for the subsample where we have valid extraversion scores for both the incoming and departing CEO. While the significance of a few variables is reduced, overall the results are qualitatively similar.

Finally, Tables IA.12 through IA.17 present expanded versions (with t-statistics for all control variables) of tables 4, 5, 6, 7, 9, and 10, respectively.

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Table IA.1: Transcripts and Audio Excerpts of Extraverted and Introverted CEOs

The table reports examples of CEO responses to the first question during the Q&A portion of a conference call with links to corresponding audio files. Panel A lists the five executive responses deemed most extraverted by human listeners (due to ties in listener rankings, we report responses for eight executives). Panel B lists the five executive responses deemed least extraverted by human listeners (due to ties in the rankings, we report responses for six executives). The last column reports whether the executive is classified as extraverted or introverted based on the average of four linguistic algorithms described in Appendix B. An executive is classified as extraverted (introverted) if the algorithm score (computed using the text from the first column) is in the top (bottom) half of the distribution.

	Text Algorithm Classification
Panel A: Listener-rated Extraverts	
Joe, to change the subject slightly, we borrowed $3.1 billion, and if we were to take it all down today, we would be paying $84 million in interest for $3.1 billion. I personally never thought I'd live to see something like that. It's a wonderful time to borrow money. It's a shame that we're all done doing it. It's been such fun, and it's been so terrific for the company's balance sheet and for our future. We're very proud of that. Matt, Dr. Maddox, has done a remarkable job, and we're going to refer to you as Dr. Maddox from now on. Having done this skilled surgery on our balance sheet, we should call you Dr. Maddox. Next question, please. https://sites.google.com/site/ceoextraversion/extravert1	Extravert
I think it's applying across all product and price lines, to be frank with you. And I don't mean to date myself, but as I sit around and look at the table here, no one around this table can remember mortgage rates being higher than 6% or 7%. And I think one of the factors that we are dealing with, quite frankly, is most analysts and most young buyers, especially first time home buyers in the market today, have been accustomed to low rates for all their lives. So I do know one thing: rates are going to go up. And we're going to have to deal with those on a go-forward basis, but I think rates going up will indicate that the economy is doing better; we're creating jobs and I think that will be good for the economy and it'll be good for us. https://sites.google.com/site/ceoextraversion/extravert2	Extravert
Yeah. Thank you, Peter. First and foremost, we have a very strong and deep bench. And as you know, over the years, we've taken pride in moving our leaders into functional roles and different business roles to round out their experience and get them ready for bigger opportunities. And so as we approach this year, Kiran and I have been speaking for the last couple years about his personal true north. And at that point in time, we decided and Kiran was very interested in talking about what he wanted to do in the next chapter. And our hope was that that next chapter was to be with Intuit forever and ever. But at some point he reached the point where he said, it's time for me to retire. So we celebrated his birthday a week ago and he said, now's the time. And it set up the opportunity for us to make some key organizational changes. In the case of Sasan Goodarzi, which is where your specific question was, Sasan has actually been the general manager of many of many of our businesses. He led our verticals businesses several years ago in the early 2000s. https://sites.google.com/site/ceoextraversion/extravert3	Extravert
And, Bob, this is Scott. Our Chief Banking Officer, Dave Kennedy, he has continued throughout 2012 and 2013 to look at branch profitability and his team that runs our entire network. They're very focused on making sure that each office is contributing. But as you know, with a low interest rate environment and once again with a sluggish economy, we're going to continue to look for more contribution and more leverage out of that network. https://sites.google.com/site/ceoextraversion/extravert4	Introvert
Sure. Thanks, George. Let me start by talking about Roofing. I would tell you, I guess I've been with the company now 21 years so I've been around the analysis of our results for a long time. This was really the first quarter that we dug into kind of state-by-state shipment data and state-by-state market share data at the level we did because we saw some trends in the quarter that did surprise us in terms of the size of the volume swings that we saw in some parts of the country. So at least in my history I would say this was probably the biggest change in the overall geographic mix of the market. Now I think this is a bit of an outgrowth of the change we've seen in the overall market over the course of the last four or five years where we are seeing more inventory put into	Extravert

	Text Algorithm Classification
the market early in the year, and then we're seeing distribution customers primarily manage that inventory through the summer. https://sites.google.com/site/ceoextraversion/extravert5	
So let me give you a little more detail on that, John. So what we said was the growth of specific products, so some of it was Network Performance Monitor, which is still a product that's – it's a largest product we have in our portfolio, some of it was Network Traffic Analyzer, some of it was Network Configuration Monitor, really the three flagship products. And our network management product portfolio grew faster than they have at any time in the last six quarters. https://sites.google.com/site/ceoextraversion/extravert6	Introvert
Yeah. It's a fact that I was requested and I went and met with the Minister in August, and I told him and had the lawyers present and had all of his lawyers and I basically said, hey, you know the situation is that it's not our plant and it's not our workers. They're part of the CGT. So the first thing is, I'm not talking to the CGT until you've arranged that they and Goodyear at least come into some sort of a tentative agreement and then if Goodyear brings us into it, then fine. And so then he talked and he wanted to know, he appreciated that. And so we started talking about – he wanted to know, well, how many people. https://sites.google.com/site/ceoextraversion/extravert7	Extravert
Well, that's quite a philosophical question, Michelle. I'll just give you a couple of thoughts; not sure I'll do it justice. But first and foremost, I think our company is still here because we've had very, very strong people in the leadership of the company. I'll admit myself in that. But I think we've had good people that the leadership of the company who thought long, and who were appropriately conservative at appropriate times. We believe in funding our pension plan. We believed in investing in our facilities, and that has stood us well over time. We do have some legacy benefits that we carry, certainly our iron ore resources would be among those. We have some legacy obligations we carry as well, but there're things that we've tried to treat seriously and deal with properly and do the right thing to insure our long-term vigor and long-term prospects for the company. https://sites.google.com/site/ceoextraversion/extravert8	Extravert

Panel B: Listener-rated Introverts	Text Algorithm Classification
Kevin, I'd say that yes, the increased spending is what's driving our improvement. A lot of the increased spending has been focused on the international markets, the areas where we – we've traditionally had less presence, and I think that's paying off. It's helping us in traditional markets as well as to broaden our product line. So, we're pleased with the progress. It's – the increased spending is necessary in this market, because the demands being placed on our customers' products continue to increase. https://sites.google.com/site/ceoextraversion/introvert1	Introvert
I think the margins that we're recognizing now are probably a pretty good indicator of what you should expect independent of significant changes in the market. https://sites.google.com/site/ceoextraversion/introvert2	Introvert
Heather, it's a bit early, the state estimate just was announced last week, which calls for the crop to come out about 4% smaller than last year, but will be the second-largest crop in history. The crop harvest is going to be very late, which is an issue because that reduces the amount of the fall season in which to market the crop and the currency versus last year dollars are bit stronger. It's still too early to make any judgments. So, we'll be watching that market closely, and we'll try to give more color next quarter on that. https://sites.google.com/site/ceoextraversion/introvert3	Introvert
Yes, that's something that we're considering and it could be a possibility. We're going to continue to evaluate those opportunities and if something that makes sense comes along, we won't be afraid to pull the trigger. https://sites.google.com/site/ceoextraversion/introvert4	Introvert
Okay, let me try to answer your question, Louise. First of all, I think when we say the FDA did not give us any additional enforcement action in the meeting and that's what we mean exactly, what we say in the press release. In the meeting, that they did not mention anything about additional enforcement action. Now, of course, you understand that this does not guarantee the	Introvert

FDA will not give us any interaction in the future, okay? And second question on the 2014, move up to 2013. I think Bryan might be able to give you details, but at this point, we are moving urgently as we can. We have moved a lot of people both internally and externally try to accelerate the program as much as possible.

https://sites.google.com/site/ceoextraversion/introvert5

I think you better look at two pieces of that and maybe the smaller piece is the aftermarket. But we have seen in the U.S. the early stages of correction are fundamentally going to over correction to get parts inventories down and to stretch out some of the rebuilds and then as things settled in those aftermarket order rates begin to move back up to a level that's in line with the production change. So, what we're seeing in the U.S. is the bottoming that is starting to see modest quarter-over-quarter improvement. As we go through the corrections in Australia and China, we're seeing the drop at the front-end and so that's becoming a drag on our third quarter bookings for aftermarket.	Introvert

https://sites.google.com/site/ceoextraversion/introvert6

Table IA.2: Persistence in Conference Call Extraversion: Firm vs. Managers

This table reports the estimates of tests of persistence in extraversion across conference calls. *Extraversion* of CEOs (CFOs) is estimated using the residuals from Specification 1 (4) of Table 2. Column 1 of Panel A reports the correlation between a CEO's extraversion score based on conference calls over the 2006-2009 period and their extraversion score based on conference calls over the 2010-2013 period. Column 2 reports the correlation in the extraversion score of two different CEOs working for the same company. Column 3 tests whether the difference in the correlation between columns 1 and 2 is statistically significant. Panel B reports analogous results for CFOs. T-statistics are reported below each estimate.

Panel A: CEOs

	Same Manager, Same Firm	Different Manager, Same Firm	Difference
	[1]	[2]	[1] - [2]
$\rho(Extraversion_t, Extraversion_{t+1})$	0.75	0.26	0.49
	(38.21)	(6.87)	(12.57)
Obs.	1170	645	1815

Panel B: CFOs

	Same Manager, Same Firm	Different Manager, Same Firm	Difference
	[1]	[2]	[1] - [2]
$\rho(Extraversion_t, Extraversion_{t+1})$	0.64	0.29	0.35
	(28.82)	(8.54)	(8.87)
Obs.	1207	779	1986

Table IA.3: Determinants of Hiring Extraverted Executives

This table reports the estimates of the following regression:

$$Extraversion_i = \beta_1 Ln(Sales)_{it-1} + \beta_2 Ln(Q)_{it-1} + \beta_3 Ln(Firm\ Age)_{it-1} + \beta_4 Ln(Vol)_{it-1} + Ind_i + \varepsilon_{it.}$$

Extraversion is the residual extraversion of CEOs (CFOs) based on Specification 1 (3) of Table 2. Definitions of the independent variables are provided in Appendix A. *Ind_i* captures industry fixed effects as measured using the Fama and French (1997) 12 industry classification. All continuous variables are standardized to have mean 0 and variance 1 each year. Standard errors are clustered by firm, and t-statistics are reported below each estimate.

	CEOs		CFOs	
	[1]	[2]	[1]	[2]
Ln (Sales)$_{t-1}$	0.28	0.25	0.35	0.36
	(7.68)	(6.51)	(12.67)	(12.88)
Ln (Q)$_{t-1}$	0.22	0.16	0.06	0.06
	(6.49)	(4.72)	(2.54)	(2.64)
Ln (Vol)$_{t-1}$	0.15	0.06	0.00	0.00
	(4.08)	(1.59)	(-0.08)	(-0.06)
Ln (Firm Age)$_{t-1}$	-0.03	-0.02	-0.05	-0.03
	(-0.87)	(-0.54)	(-2.08)	(-1.12)
Non-Durables		0.03		-0.09
		(0.24)		(-1.12)
Durables		-0.15		0.11
		(-0.92)		(1.12)
Manufacturing		0.09		-0.21
		(1.33)		(-3.39)
Energy, Oil, Gas, and Coal		0.22		-0.30
		(1.62)		(-3.00)
Chemicals		0.18		-0.09
		(1.32)		(-0.94)
Computers, Software, Electronics		0.10		0.05
		(1.47)		(0.87)
Telecom		0.22		0.19
		(0.96)		(1.06)
Utilities		-0.73		-0.15
		(-5.48)		(-1.67)
Wholesale and Retail Shops		0.03		0.04
		(0.40)		(0.62)
Healthcare		0.08		0.11
		(0.74)		(1.19)
Financials		-0.10		0.29
		(-1.02)		(3.40)
Other		0.12		0.05
		(1.29)		(0.67)
Obs.	1,121	1,121	1,851	1,851
R^2	7.90%	11.62%	10.98%	13.15%

Table IA.4: Extraversion and Executive Compensation: Additional Analysis

This table reports estimates from the following panel regression:

$$Log(Comp)_{it} = \beta_1 Extraversion_i + \gamma \textbf{FirmChar} + \delta \textbf{Performance} + \omega \textbf{ExecChar} + Year_t + FE_i + \varepsilon_{it.}$$

Comp captures a variety of executive compensation measures. *Extraversion* is the residual extraversion of executives based on Specification 1 of Table 2. **FirmChar** is a vector of firm characteristics, **Performance** is a vector of firm performance measures, and **ExecChar** is a vector of individual characteristics. In Panel A, *Comp* is CEO Cash Compensation defined as salary + bonus. In Panel B, *Comp* is CEO Equity Compensation defined as *Total Compensation – Cash Comp.* In Panel C, *Comp* is based on CEO total compensation, comprised of salary, bonus, value of restriction stock granted, value of options granted, long-term incentive payout, and other compensation (TDC1 as reported in Execucomp), and *Extraversion* is measured using quintiles. In Panel D, *Comp* is based on CFO total compensation and *Extraversion* is residual extraversion for CFOs. In Panel E, *Comp* is *CEO Relative Pay* defined as Log (CEO total compensation) – Log (CFO compensation), and Extraversion is *Relative Extraversion* defined as CEO *Extraversion* less CFO *Extraversion*. All continuous variables are standardized to have mean 0 and variance 1. Appendix A provides detailed variable definitions. The layout is the same as in Table 4 in the text, although only the coefficients on Extraversion are reported for brevity. In particular, Specifications 1&5 examine *Extraversion* in isolation, 2&6 add firm characteristics, 3&7 add performance measurements, and 4&8 add manager characteristics. Specifications 1-4 (5-8) include industry (firm) and year fixed effects.

	Industry and Year Fixed Effects				Firm and Year Fixed Effects			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Panel A: CEO Cash Compensation								
Extraversion	7.70%	2.80%	2.70%	3.00%	1.80%	1.72%	1.64%	2.53%
	(6.06)	(2.78)	(2.72)	(2.62)	(1.26)	(1.23)	(1.18)	(1.71)
Panel B: CEO Equity Compensation								
Extraversion	24.45%	9.00%	8.80%	6.12%	11.27%	10.58%	11.35%	12.32%
	(7.17)	(3.53)	(3.45)	(2.07)	(2.51)	(2.32)	(2.50)	(2.45)
Panel C: CEO Total Compensation Quintiles								
Extraversion Q2	19.70%	7.60%	7.30%	5.10%	1.02%	-0.84%	0.18%	0.69%
	(3.08)	(2.07)	(2.00)	(1.42)	(0.20)	(-0.17)	(0.04)	(0.14)
Extraversion Q3	28.00%	15.70%	15.60%	13.20%	5.85%	5.11%	6.85%	8.98%
	(4.55)	(4.27)	(4.28)	(3.65)	(1.22)	(1.11)	(1.50)	(1.99)
Extraversion Q4	37.20%	14.60%	14.70%	12.10%	5.81%	4.73%	6.59%	8.89%
	(5.72)	(3.61)	(3.63)	(2.92)	(0.96)	(0.80)	(1.15)	(1.58)
Extraversion Q5	52.10%	18.40%	17.70%	14.10%	15.01%	12.43%	12.41%	12.70%
	(7.79)	(4.54)	(4.38)	(3.14)	(2.33)	(1.93)	(1.95)	(1.92)
Panel D: CFO Total Compensation								
Extraversion	25.94%	6.86%	6.61%	5.08%	11.35%	11.26%	11.15%	9.07%
	(14.61)	(5.72)	(5.59)	(4.27)	(6.55)	(6.62)	(6.66)	(5.31)
Panel E: CEO Relative Compensation								
Relative Extraversion	7.44%	8.84%	8.78%	7.69%	10.34%	10.39%	10.38%	9.25%
	(6.20)	(7.58)	(7.53)	(6.19)	(6.35)	(6.38)	(6.38)	(5.35)

Table IA.5: Correlation of Different Extraversion Measures

This table reports the correlation between 1) the extraversion measure computed from the Q&A portion of the call (*Extraversion Q&A*), 2) the extraversion measure computed from the presentation portion of the call (*Extraversion Presentation*), the extraversion measure computed from the full call, including both the Q&A and the presentation (*Extraversion Full Call*), and the average listener assessment of extraversion based as described in Section IA.2 (*Listener Assessments*). Statistically significant estimates (at a 5% level) are in bold.

	Extraversion *(Q&A)*	Extraversion (Full Call)	Extraversion (Presentation)	Listener Assessments
Extraversion (Q&A)	1	**0.83**	**0.32**	**0.35**
Extraversion (Full Call)		1	**0.72**	**0.30**
Extraversion (Presentation)			1	0.10
Listener Assessments				1

Table IA.6: Extraversion Q&A versus Extraversion Presentation

Panels A-G repeat the main analyses from Tables 4-10 of the text after including the extraversion measure computed from the presentation portion of the call (*Extraversion PR)* as an additional control. For example, Specifications 1-8 of Panel A correspond to Specifications 1-8 of Table 4. Panel E only reports the results for Specification 2 and limits the sample to variables that were significantly associated with Extraversion. For brevity, the tables only report the coefficient on *Extraversion Q&A* and *Extraversion PR*, but all controls in the original specification are also included.

Panel A: Compensation (Table 4)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Extraversion QA	11.50%	3.80%	3.60%	3.20%	6.03%	5.28%	5.31%	6.05%
	(5.26)	(2.77)	(2.62)	(2.00)	(2.82)	(2.48)	(2.52)	(2.76)
Extraversion PR	17.70%	6.60%	6.60%	6.20%	-0.56%	-0.05%	0.81%	1.14%
	(7.89)	(5.04)	(5.10)	(4.80)	(-0.25)	(-0.02)	(0.36)	(0.52)

Panel B: Turnover and Tenure (Table 5)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Extraversion QA	0.87	0.85	0.89	0.97	9.10	10.39	7.13
	(-2.80)	(-3.04)	(-1.83)	(-0.38)	(3.85)	(4.38)	(3.91)
Extraversion PR	0.84	0.79	0.85	0.85	-11.95	-9.33	-1.11
	(-3.37)	(-4.33)	(-2.77)	(-2.78)	(-5.27)	(-4.11)	(-0.68)

Panel C: CEO Outside Boards (Table 6)

	[1]	[2]	[3]	[4]	[5]
Extraversion QA	1.80	1.13	11.08%	18.40%	16.44%
	(1.94)	(1.90)	(1.63)	(2.24)	(2.36)
Extraversion PR	0.24	1.03	2.40%	4.70%	-0.32%
	(0.28)	(0.47)	(0.45)	(0.66)	(-0.05)

Panel D: CFO Promotion (Table 7)

	[1]	[2]
Extraversion QA	1.55	1.31
	(3.10)	(1.63)
Extraversion PR	0.84	1.31
	(-1.16)	(1.81)

Panel E: Compensation, Investor Recognition, and Performance (Table 8 - Spec 2)

	Comp.	Analyst Coverage	Conf. Presentations	Turnover	Illiquidity	Sales Growth	Market Share
Extraversion QA	6.07%	3.33%	5.06%	5.04%	-17.92%	1.90%	3.06%
	(2.37)	(1.91)	(2.27)	(2.44)	(-4.17)	(2.02)	(1.73)
Extraversion PR	4.49%	8.17%	0.98%	-0.21%	21.97%	-1.78%	2.10%
	(0.71)	(1.96)	(0.18)	(-0.04)	(2.09)	(-0.77)	(0.48)

Panel F: Departure Announcement Returns (Table 9)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Extraversion QA	-0.26%	-0.28%	-0.65%	-0.67%	-0.68%	-0.43%	-3.75%
	(-0.76)	(-0.82)	(-1.45)	(-2.22)	(-2.22)	(-1.25)	(-4.06)
Extraversion PR	-0.05%	-0.09%	-0.02%	-0.04%	-0.07%	-0.06%	-1.07%
	(-0.14)	(-0.23)	(-0.07)	(-0.16)	(-0.27)	(-0.20)	(-0.64)

Panel G: CEO Extraversion and M&A Announcement Returns (Table 10)

	[1]	[2]	[3]
Extraversion QA	0.38%	0.44%	0.49%
	(1.91)	(2.24)	(2.09)
Extraversion PR	-0.29%	-0.22%	-0.17%
	(-1.41)	(-1.05)	(-0.79)

Table IA7: Results using Equal-Weighted Extraversion

Panels A-G repeat the main analyses from Tables 4-10 of the text after replacing *Extraversion* with *EW* Extra, a measure of extraversion computed as the equal-weighted average of *Call Extraversion.* For example, Specifications 1-8 of Panel A correspond to Specifications 1-8 of Table 4. Panel E only reports the results for Specification 2 and limits the sample to variables that were significantly associated with Extraversion. For brevity, the tables only report the coefficient on *EW Extra*, but all controls in the original specification are also included.

Panel A: Compensation (Table 4)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
EW Extra	17.10%	5.30%	5.00%	3.40%	6.46%	5.95%	5.97%	6.54%
	(7.81)	(3.84)	(3.66)	(2.08)	(2.88)	(2.61)	(2.65)	(2.78)

Panel B: Turnover and Tenure (Table 5)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
EW Extra	0.83	0.80	0.91	0.99	2.96	5.18	4.80
	(-3.92)	(-4.31)	(-1.44)	(-0.06)	(1.28)	(2.20)	(2.70)

Panel C: CEO Outside Boards (Table 6)

	[1]	[2]	[3]	[4]	[5]
EW Extra	1.47	1.10	9.28%	18.10%	14.39%
	(1.63)	(1.70)	(1.44)	(2.33)	(2.11)

Panel D: CFO Promotion (Table 7)

	[1]	[2]
EW Extra	1.48	1.21
	(2.86)	(1.23)

Panel E: Compensation, Investor Recognition, and Performance (Table 8 - Spec 2)

	Compensation	Analyst Coverage	Conf. Presentations	Turnover	Illiquidity	Sales Growth	Market Share
EW Extra	9.76%	5.30%	5.75%	7.04%	-19.11%	2.87%	4.63%
	(2.73)	(2.16)	(1.78)	(2.37)	(-3.08)	(2.09)	(1.82)

Panel F: Departure Announcement Returns (Table 9)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
EW Extra	-0.14%	-0.18%	-0.41%	-0.44%	-0.45%	-0.11%	-3.66%
	(-0.48)	(-0.61)	(-0.99)	(-1.69)	(-1.68)	(-0.31)	(-3.70)

Panel G: CEO Extraversion and M&A Announcement Returns (Table 10)

	[1]	[2]	[3]
EW Extra	0.24%	0.33%	0.42%
	(1.53)	(2.14)	(2.11)

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Table IA.8: The Mediating role of Liquidity, Investor Recognition, and Performance on the Extraversion Pay Premium

Panel A of this table reports estimates from the following panel regressions:

$$\Delta Y_{it+3,t-1} = \beta_1 \Delta Extraversion_{it+3,t-1} + \beta_2 \Delta CEOChar_{it+3,t-1} + \varepsilon_{it}.$$

Y denotes either compensation, Amihud illiquidity (*Amihud*), or conference presentations (*Conf. Presentation*). The dependent variable is the change in average level in the three years after a CEO transition (years $t+1$ to $t+3$) relative to the level in the year prior to the transition (year t-1). *Extraversion* is the residual extraversion of CEOs based on Specification 1 of Table 2. All other variables are defined as in Table 8 of the text. Panel B summarize the indirect effects for each of the mediating variables. Below the point estimates are the 95% confidence intervals based on Monte Carlo method of MacKinnon, Lockwood, and Williams (2004).

Panel A: Regression Results

Dependent Variable:	*Compensation*	*Amihud*	*Conf. Presentation*	*Compensation*
	[1]	[2]	[3]	[5]
Extraversion	5.77%	-16.66%	5.51%	3.49%
	(2.33)	(-3.99)	(2.54)	(1.42)
Amihud				-9.65%
				(-3.89)
Conf. Presentation				12.24%
				(2.56)

Panel B: Summary of Indirect Effects

Indirect - *Amihud*				1.61%
				[0.61%, 2.88%]
Indirect - *Conf. Pres*				0.67%
				[0.07%, 1.55%]

Table IA.9: Extraversion and Age of First Appointment to CEO

This table reports estimates from the following panel regression:

$$First\_Age_i = \beta_1 Extraversion_i + \gamma \textbf{FirmChar} + \omega \textbf{CEOChar} + Year_t + FE_i + \varepsilon_{it}.$$

First_Age is the age at which the executive was first appointed to CEO. *Extraversion* is the residual extraversion of CEOs based on Specification 1 of Table 2. **FirmChar** and **CEOChar** are vectors of firm and manager characteristics detailed in Appendix A. FE indicates an industry (Specification 1) or firm (Specification 2) fixed effect. All independent variables are standardized to have mean 0 and variance 1. Standard errors are clustered by firm, and t-statistics are reported below the coefficients estimates.

	[1]	[2]
Extraversion	-0.66	-0.98
	(-3.88)	(-2.96)
Ln (Sales)	0.43	1.38
	(1.63)	(1.48)
Ln (Assets)	-0.02	-0.17
	(-0.07)	(-0.18)
Ln (Q)	-0.71	-1.12
	(-2.19)	(-1.33)
Ln (Vol)	0.18	1.38
	(0.51)	(2.30)
Ln (Firm Age)	0.81	-1.33
	(4.03)	(-1.50)
Male	1.82	0.33
	(3.23)	(0.86)
Founder	3.58	-0.33
	(4.03)	(-0.14)
GAI	1.29	1.36
	(8.58)	(4.62)
Rolodex	-0.02	-0.11
	(-0.15)	(-0.34)
Optimism	-0.98	-0.92
	(-6.26)	(-2.47)
Overconfidence	-1.08	-0.21
	(-2.17)	(-0.96)
MBA	-0.46	-0.98
	(-1.59)	(-1.83)
Doctorate	-0.18	-2.55
	(-0.16)	(-1.23)
Ivy League	-0.67	-1.06
	(-2.68)	(-2.22)
Grad with Honors	-0.89	-0.48
	(-2.08)	(-0.51)
Emotional Stability	-0.51	-0.37
	(-2.79)	(-0.99)
Openness	0.10	0.34
	(0.46)	(0.80)
Agreeableness	-0.29	-0.02
	(-1.42)	(-0.05)
Conscientiousness	-0.61	-1.61
	(-2.58)	(-3.57)
Fixed Effects	Industry & Year	Firm & Year
R-squared	28.53%	82.76%
Observations	1,772	1,772

Table IA.10: CEO Extraversion and M&A Activity

This table reports estimates from the following logistic panel regression:

$$MNA_{it} = \beta_1 Extraversion_{it} + \boldsymbol{\beta_2 FirmChar}_{it} + \boldsymbol{\beta_3 CEOChar}_{it} + Ind_i + Year_t + \varepsilon_{it} .$$

In Specifications 1 and 2, MNA_{it} is a dummy variable if firm i conducted a merger or acquisition in year t. In Specifications 3 and 4, MNA_{it} is the total value of acquisitions scaled by total assets (in natural logs). *Extraversion* is the extraversion score of the CEO of the acquiring firm. **FirmChar** and **CEOChar** are the vectors of firm and CEO characteristics included as controls in Equation 2 (and described in Appendix A). All independent variables are standardized to have mean 0 and variance equal to 1. Specifications 1 and 2 report odds ratios and z-scores from a logit regression, and Specifications 3 and 4 report coefficients and t-statistics. Standard errors are clustered by firm.

	M&A Dummy		Scaled M&A	
	[1]	[2]	[3]	[4]
Extraversion	1.13	1.08	3.10%	2.05%
	(3.16)	(1.68)	(2.84)	(1.55)
Ln (Sales)		0.86		-4.21%
		(-1.54)		(-1.55)
Ln (Assets)		1.43		2.90%
		(3.51)		(1.05)
Ln (Q)		1.02		1.18%
		(0.41)		(0.92)
Ln (Vol)		0.84		-4.12%
		(-3.96)		(-3.21)
Ln (Age)		0.89		-4.36%
		(-2.57)		(-3.22)
Lag Fiscal Ret		0.99		0.62%
		(-0.15)		(0.66)
Log (CEO Tenure)		1.03		2.64%
		(0.68)		(1.86)
Log (CEO Age)		0.93		-2.31%
		(-1.88)		(-1.78)
Male		1.24		-1.67%
		(1.00)		(-0.32)
Founder		1.00		-1.72%
		(-0.00)		(-0.46)
Chair		0.95		-1.82%
		(-0.72)		(-0.82)
GAI		1.04		3.08%
		(0.90)		(2.97)
Rolodex		1.02		-0.80%
		(0.52)		(-0.62)
Percent Ceo Text		0.93		-1.21%
		(-1.58)		(-0.90)
Optimism		1.17		3.94%
		(4.15)		(3.71)
Overconfidence		0.95		-2.79%
		(-0.64)		(-1.02)
MBA		1.04		1.31%
		(0.60)		(0.62)
Doctorate		1.24		13.47%
		(0.76)		(1.16)
IvyLeague		0.95		-1.88%

		(-0.73)		(-0.94)
GradHonors		1.04		1.01%
		(0.40)		(0.33)
Emotional Stability		1.03		0.91%
		(0.72)		(0.70)
Openness		1.01		-0.37%
		(0.25)		(-0.25)
Agreeableness		1.01		1.00%
		(0.19)		(0.70)
Conscientiousness		0.94		-1.27%
		(-1.06)		(-0.82)
Fixed Effects	Industry & Year	Industry & Year	Industry & Year	Industry & Year
Observations	10,918	10,918	10,918	10,918
Pseudo R^2/ R^2	4.70%	6.46%	5.07%	5.99%

Table IA.11: CEO Extraversion around Turnovers: Compensation, Investor Recognition, and Firm Performance – Missing Observations Excluded

Specifications 1 and 2 are identical to the results reported in Table 8 of the paper. Specifications 3 and 4 repeat Specifications 1 and 2 after excluding observations where either the extraversion score for the incoming or departing CEO is missing.

	Included Missing Observations		Exclude Missing Observations	
	[1]	[2]	[3]	[4]
	Univariate	Add Controls	Univariate	Add Controls
Panel A: Compensation				
Industry-Adj. Log (Total Compensation)	6.82	6.95	6.29	8.11
	(3.11)	(2.83)	(2.75)	(3.19)
Panel B: Investor Recognition				
Industry-Adj. Log (Analyst Coverage)	5.25	4.24	4.97	3.63
	(3.58)	(2.56)	(3.08)	(2.04)
Industry-Adj. Log (Conf. Presentations)	6.16	5.25	6.95	5.83
	(3.28)	(2.45)	(3.38)	(2.50)
Industry-Adj. Log (Media Articles)	2.66	5.23	0.93	4.30
	(0.83)	(1.41)	(0.24)	(0.96)
Industry-Adj. Log (Media Words)	19.63	27.19	10.29	20.94
	(1.70)	(2.05)	(0.71)	(1.26)
Industry Adj. Log (Turnover)	4.57	5.12	1.01	1.43
	(2.65)	(2.60)	(0.54)	(0.68)
Industry-Adj. Log (Amihud Illiquidity)	-14.99	-15.06	-10.71	-10.77
	(-4.15)	(-3.66)	(-3.01)	(-2.69)
Panel C: Firm Performance				
Industry-Adj. Log (Sales Growth)	2.31	1.68	2.01	1.66
	(2.91)	(1.86)	(1.99)	(1.46)
Industry-Adjusted Log (Market Share)	3.37	3.24	3.54	2.98
	(2.28)	(1.92)	(2.09)	(1.55)
Industry-Adjusted Firm Efficiency	0.71	0.74	0.61	0.96
	(1.40)	(1.34)	(1.00)	(1.47)
Industry-Adjusted Profitability (OCF)	0.20	0.28	0.26	0.51
	(0.73)	(0.91)	(0.86)	(1.51)
Industry-Adjusted Profit Margin	0.79	0.68	0.60	0.68
	(1.67)	(1.28)	(1.17)	(1.19)
Industry-Adjusted ROA	0.15	0.10	0.12	0.10
	(0.57)	(0.33)	(0.42)	(0.33)
Industry-Adjusted Log (Q)	1.25	1.28	0.65	1.04
	(1.17)	(1.06)	(0.54)	(0.76)
Industry-Adjusted Return	0.85	0.65	-0.70	-0.91
	(0.74)	(0.50)	(-0.63)	(-0.72)

Table IA.12: Extraversion and CEO Compensation

(same as Table 4 in the text, with test-statistics reported for the control variables)

	Industry and Year Fixed Effects				Firm and Year Fixed Effects			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Extraversion	17.65%	5.95%	5.76%	4.56%	5.96%	5.44%	5.75%	6.48%
	(8.31)	(4.46)	(4.31)	(2.92)	(2.76)	(2.51)	(2.67)	(2.87)
Ln (Sales)		25.30%	26.00%	23.40%		4.79%	17.34%	17.82%
		(7.31)	(7.37)	(6.68)		(1.03)	(2.32)	(2.42)
Ln (Assets)		48.90%	48.40%	44.00%		34.56%	37.14%	36.43%
		(13.33)	(12.88)	(12.01)		(6.89)	(6.12)	(6.02)
Ln (Q)		17.70%	14.10%	12.70%		15.92%	11.78%	11.58%
		(10.93)	(7.32)	(6.74)		(12.33)	(7.61)	(7.50)
Ln (Vol)		3.60%	3.40%	3.30%		-2.06%	-0.97%	-1.18%
		(2.66)	(2.48)	(2.51)		(-1.31)	(-0.63)	(-0.78)
Ln (Firm Age)		-2.30%	-1.50%	-1.20%		7.68%	7.74%	5.52%
		(-1.86)	(-1.25)	(-0.77)		(2.25)	(2.27)	(1.56)
Ln (Sales Growth)			5.80%	5.80%			5.04%	5.01%
			(4.59)	(4.63)			(4.05)	(4.06)
Fiscal Ret			5.50%	5.10%			4.49%	4.45%
			(4.60)	(4.46)			(4.44)	(4.38)
Lag Fiscal Ret			4.00%	3.90%			3.40%	3.33%
			(4.55)	(4.54)			(4.21)	(4.16)
Profitability			2.70%	2.80%			3.92%	3.93%
			(1.56)	(1.62)			(2.75)	(2.75)
Prof. Growth			0.00%	0.00%			-0.48%	-0.44%
			(-0.00)	(0.03)			(-0.62)	(-0.57)
Loss Dummy			-3.60%	-3.70%			-11.08%	-10.51%
			(-1.37)	(-1.41)			(-5.71)	(-5.40)
Log (CEO Tenure)				-4.40%				2.52%
				(-2.40)				(1.64)
Log (CEO Age)				1.60%				-2.81%
				(1.11)				(-1.44)
Male				2.80%				4.51%
				(0.47)				(0.71)
Founder				1.10%				-6.41%
				(0.26)				(-1.07)
Chair				7.50%				3.30%
				(2.92)				(1.63)
GAI				7.90%				5.74%
				(5.55)				(3.35)
Rolodex				2.40%				0.87%
				(1.55)				(0.52)
Percent CEO Text				2.00%				1.13%
				(1.13)				(0.88)
Optimism				3.80%				3.16%
				(2.63)				(1.73)
Overconfidence				-6.70%				-3.56%
				(-2.66)				(-2.09)
MBA				2.70%				4.78%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				(1.19)				(1.50)
Doctorate				12.10%				-9.63%
				(1.41)				(-1.49)
Ivy League				2.50%				-0.35%
				(1.22)				(-0.12)
Grad with Honors				5.20%				-0.19%
				(1.37)				(-0.05)
Emotional Stability				2.10%				-2.43%
				(1.32)				(-1.24)
Openness				-1.40%				-1.61%
				(-0.86)				(-0.68)
Agreeableness				-0.50%				-0.46%
				(-0.30)				(-0.20)
Conscientiousness				0.70%				-0.60%
				(0.37)				(-0.21)
R-squared	8.88%	55.30%	56.42%	58.07%	79.43%	80.30%	81.07%	81.28%
Observations	10,918	10,918	10,918	10,918	10,918	10,918	10,918	10,918

Table IA.13: Extraversion and CEO Tenure and Turnover

(same as Table 5 in the text, with test-statistics reported for the control variables)

	Turnover				Tenure		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Extraversion	0.81	0.79	0.86	0.94	5.12%	7.52%	6.84%
	(-4.32)	(-4.81)	(-2.38)	(-0.87)	(2.25)	(3.27)	(3.85)
Ln (Sales)		1.08	1.05	1.05		-8.25%	-10.97%
		(0.66)	(0.35)	(0.40)		(-1.50)	(-2.81)
Ln (Assets)		1.18	1.08	1.10		-9.41%	-11.07%
		(1.33)	(0.54)	(0.66)		(-1.62)	(-2.65)
Ln (Q)		1.11	1.14	1.17		-3.59%	-3.44%
		(1.52)	(1.77)	(2.10)		(-1.47)	(-1.83)
Ln (Vol)		1.12	1.09	1.09		-0.98%	2.30%
		(2.00)	(1.38)	(1.41)		(-0.45)	(1.51)
Lag (Age)		1.07	0.91	0.92		5.93%	21.71%
		(1.50)	(-1.45)	(-1.28)		(3.20)	(12.88)
Ln (Sales Growth)		1.00	0.99	1.00		5.00%	2.44%
		(0.06)	(-0.10)	(-0.06)		(4.17)	(2.84)
Fiscal Return		0.72	0.74	0.75		-2.89%	-1.17%
		(-3.47)	(-3.19)	(-3.08)		(-2.58)	(-1.65)
Lag Fiscal Return		0.85	0.85	0.84		0.05%	-0.09%
		(-1.19)	(-1.21)	(-1.23)		(0.06)	(-0.14)
Profitability		1.01	0.99	0.98		0.66%	-0.37%
		(0.17)	(-0.17)	(-0.25)		(0.28)	(-0.20)
Profitability Growth		0.93	0.94	0.94		-1.53%	0.60%
		(-1.34)	(-1.17)	(-1.15)		(-1.27)	(0.69)
Loss Dummy		1.32	1.33	1.34		-19.15%	-5.01%
		(1.98)	(1.94)	(1.95)		(-4.79)	(-1.88)
Log (CEO Age)			1.73	1.67		0.00%	21.13%
			(8.42)	(7.84)			(13.57)
Log (CEO Tenure)			1.23	1.26			
			(2.90)	(3.19)			
Male			1.41	1.44			18.57%
			(1.21)	(1.27)			(2.45)
Founder			0.66	0.67			104.80%
			(-2.47)	(-2.36)			(24.72)
Chair			0.69	0.69			36.33%
			(-3.39)	(-3.44)			(12.60)
GAI			1.23	1.23			-8.50%
			(4.27)	(4.15)			(-4.96)
Rolodex			1.13	1.13			7.73%
			(2.39)	(2.52)			(4.62)
Percent CEO Text			0.91	0.95			1.64%
			(-0.99)	(-0.52)			(0.79)
Optimism			0.45	0.89			-2.62%
			(-3.47)	(-2.12)			(-1.73)
Overconfidence			0.90	0.82			1.21%
			(-1.79)	(-1.65)			(0.39)
MBA			0.82	0.93			-3.72%
			(-1.63)	(-0.76)			(-1.23)
Doctorate			0.93	1.17			-24.43%
			(-0.75)	(0.60)			(-3.39)
Ivy League			1.17	0.92			8.88%

			(0.60)	(-0.91)			(3.44)
Grad with Honors			0.92	0.98			1.03%
			(-0.98)	(-0.15)			(0.24)
Emotional Stability			0.92	0.80			1.79%
			(-0.53)	(-3.52)			(0.98)
Openness			0.86	1.06			-4.55%
			(-1.19)	(0.84)			(-1.99)
Agreeableness				1.08			-0.28%
				(1.01)			(-0.15)
Conscientiousness				0.83			2.01%
				(-2.41)			(0.90)
Fixed Effects	Industry & Year	Industry & Year	Industry & Year	Industry & Year	Industry & Year	Industry & Year	Industry & Year
R-squared	3.23%	3.20%	5.87%	6.06%	2.28%	5.11%	51.37%
Observations	10,918	10,918	10,918	10,918	10,925	10,925	10,925

Table IA.14: Extraversion and Outside Directorships
(same as Table 6 in the text, with test-statistics reported for the control variables)

	Ln (1 + Dir.)	Logit (Dir. =1)	Dir. Size: Ln(Sales)	Dir. Size: Ln(Assets)	Dir. Size: Ln(Equity)
	[1]	[2]	[3]	[4]	[5]
Extraversion	1.90%	1.15	12.09%	20.14%	16.27%
	(2.10)	(2.15)	(1.83)	(2.56)	(2.42)
Ln (Sales)	3.29%	1.30	58.57%	58.98%	41.73%
	(1.59)	(1.70)	(3.64)	(3.07)	(2.57)
Ln (Assets)	-1.13%	1.09	28.42%	35.80%	47.99%
	(-0.51)	(0.51)	(1.72)	(1.79)	(2.78)
Ln (Q)	-1.34%	0.95	4.22%	1.74%	17.15%
	(-1.42)	(-0.83)	(0.55)	(0.19)	(2.23)
Ln (Vol)	-1.23%	0.94	7.87%	17.28%	9.01%
	(-1.48)	(-1.06)	(1.13)	(1.88)	(1.22)
Ln (Firm Age)	0.58%	1.05	5.38%	7.73%	6.85%
	(0.61)	(0.69)	(0.85)	(0.94)	(0.93)
Ln (Sales Growth)	0.68%	1.06	-2.77%	-4.82%	-2.47%
	(1.86)	(1.92)	(-0.83)	(-1.06)	(-0.68)
Fiscal Return	-0.31%	0.97	0.87%	1.08%	6.60%
	(-0.63)	(-0.76)	(0.21)	(0.23)	(1.55)
Lag Fiscal Return	-0.41%	0.95	-3.92%	-3.80%	-3.26%
	(-0.91)	(-1.29)	(-0.91)	(-0.75)	(-0.69)
Profitability	-0.05%	1.01	19.98%	21.39%	20.93%
	(-0.05)	(0.19)	(2.26)	(2.09)	(2.06)
Profitability Growth	0.00%	0.99	-7.87%	-6.44%	-8.11%
	(0.00)	(-0.33)	(-1.81)	(-1.31)	(-1.63)
Loss Dummy	-2.59%	0.84	2.17%	1.83%	6.57%
	(-1.89)	(-1.70)	(0.23)	(0.15)	(0.61)
Log (CEO Tenure)	6.28%	1.50	2.33%	-1.89%	-9.57%
	(6.49)	(5.83)	(0.31)	(-0.21)	(-1.16)
Log (CEO Age)	2.01%	1.11	2.45%	13.34%	16.12%
	(2.55)	(1.73)	(0.33)	(1.43)	(2.15)
Male	-14.95%	0.31	-64.33%	-79.33%	-75.04%
	(-3.25)	(-3.76)	(-2.73)	(-2.89)	(-3.68)
Founder	-7.84%	0.54	28.75%	21.36%	22.57%
	(-2.95)	(-3.32)	(1.50)	(0.86)	(1.05)
Chair	3.66%	1.30	18.99%	27.26%	23.92%
	(2.38)	(2.57)	(1.73)	(2.13)	(2.20)
GAI	13.63%	2.38	7.20%	15.08%	11.55%
	(14.44)	(13.82)	(1.11)	(1.84)	(1.79)
Rolodex	4.97%	1.29	27.58%	31.65%	27.32%
	(5.30)	(4.15)	(6.06)	(5.44)	(5.66)
Percent CEO Text	-0.54%	0.95	6.75%	8.83%	7.18%

	(-0.74)	(-0.89)	(1.30)	(1.32)	(1.28)
Optimism	-1.36%	0.95	3.30%	6.77%	2.74%
	(-1.66)	(-0.89)	(0.60)	(0.95)	(0.48)
Overconfidence	-2.95%	0.77	-12.59%	-4.51%	-1.33%
	(-1.80)	(-2.50)	(-1.22)	(-0.36)	(-0.12)
MBA	3.65%	1.23	2.96%	-9.86%	-2.94%
	(2.18)	(1.91)	(0.27)	(-0.75)	(-0.27)
Doctorate	-0.99%	1.06	-47.24%	-48.93%	-28.71%
	(-0.17)	(0.14)	(-1.37)	(-1.10)	(-0.74)
Ivy League	-0.12%	1.02	10.26%	21.74%	16.04%
	(-0.08)	(0.17)	(1.10)	(2.05)	(1.96)
Grad with Honors	-1.12%	0.99	16.58%	8.84%	17.96%
	(-0.50)	(-0.07)	(1.09)	(0.47)	(1.11)
Emotional Stability	-0.19%	0.98	1.83%	1.23%	-5.89%
	(-0.19)	(-0.29)	(0.27)	(0.15)	(-0.83)
Openness	-1.10%	0.94	0.63%	2.29%	2.39%
	(-0.98)	(-0.83)	(0.08)	(0.22)	(0.30)
Agreeableness	-0.59%	0.95	-11.04%	-8.44%	-6.15%
	(-0.60)	(-0.68)	(-1.52)	(-0.96)	(-0.87)
Conscientiousness	0.91%	1.05	0.60%	-1.04%	-1.59%
	(0.79)	(0.68)	(0.07)	(-0.10)	(-0.18)
Observations	9,630	9,630	2,222	2,222	2,222
R^2/Psuedo R^2	27.56%	23.05%	45.89%	43.75%	45.91%

Table IA.15: Extraversion and CFO Promotion to CEO
(same as Table 7 in the text, with test-statistics reported for the control variables)

	[1]	[2]	[3]
Extraversion	1.55	1.46	0.71
	(3.10)	(2.64)	(-1.17)
Extraversion * CEO Extra			3.01
			(3.01)
CEO Extra			1.30
			(0.65)
Ln (Sales)	0.84	0.91	0.96
	(-1.16)	(-0.62)	(-0.15)
Ln (Q)	(1.15)	(1.12)	(0.81)
	(1.13)	(0.89)	(-1.13)
Lag Fiscal Ret	0.92	0.86	0.99
	(-0.58)	(-0.92)	(-0.07)
Lag Profitability	0.97	0.98	1.04
	(-0.18)	(-0.12)	(0.16)
Tenure	1.08	1.09	1.21
	(0.54)	(0.61)	(0.99)
Exec Age	0.50	0.43	0.38
	(-1.48)	(-1.79)	(-1.20)
Optimism	0.88	0.87	0.72
	(-0.85)	(-0.88)	(-1.37)
Emotional Stability	1.02	1.07	1.38
	(0.16)	(0.50)	(1.46)
Openness	1.20	1.13	1.17
	(1.07)	(0.70)	(0.59)
Agreeableness	0.97	1.02	0.95
	(-0.17)	(0.13)	(-0.23)
Conscientiousness	0.88	0.87	0.70
	(-0.80)	(-0.87)	(-1.51)
Cumulative Returns		1.14	1.34
		(0.89)	(1.50)
Relative Forecast Errors		1.11	1.19
		(1.12)	(1.68)
Guidance Dummy		0.87	0.93
		(-0.51)	(-0.22)
CFO Percent Text		1.12	1.22
		(1.11)	(1.59)
Relative Salary		1.80	2.17
		(3.91)	(3.10)
Observations	1171	1171	832
Pseudo R-squared	5.34%	6.95%	6.49%
Obs. CFO Promotion=1	93	93	54
Prob of CFO Promotion	7.94%	7.94%	2.05%

Table IA.16: CEO Extraversion and Departure Announcement Returns
(same as Table 9 in the text, with test-statistics reported for the control variables)

	All Departures			Voluntary Departures			Unexpected
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Extraversion	-0.27%	-0.30%	-0.64%	-0.66%	-0.67%	-0.41%	-4.04%
	(-0.87)	(-0.97)	(-1.50)	(-2.38)	(-2.39)	(-1.21)	(-3.39)
Ln (Sales)		1.26%	1.51%		0.21%	0.20%	
		(1.28)	(1.51)		(0.20)	(0.20)	
Ln (Assets)		-1.08%	-1.05%		0.04%	-0.03%	
		(-1.08)	(-1.00)		(0.04)	(-0.03)	
Ln (Q)		-0.43%	-0.39%		-0.22%	-0.23%	
		(-0.94)	(-0.87)		(-0.53)	(-0.56)	
Ln (Vol)		-0.30%	0.12%		0.20%	0.33%	
		(-0.43)	(0.18)		(0.37)	(0.61)	
Ln (Age)		-0.47%	-0.59%		-0.23%	-0.44%	
		(-1.47)	(-1.35)		(-0.76)	(-1.21)	
Lag Fiscal Ret		-0.13%	-0.13%		-0.22%	-0.25%	
		(-0.49)	(-0.47)		(-0.89)	(-0.99)	
Log (CEO Tenure)			-0.20%			0.14%	
			(-0.41)			(0.26)	
Log (CEO Age)			0.89%			0.71%	
			(2.10)			(1.62)	
Male			-0.51%			-3.74%	
			(-0.30)			(-1.93)	
Founder			-0.84%			-0.73%	
			(-0.73)			(-0.67)	
Chair			-0.87%			0.17%	
			(-1.18)			(0.24)	
GAI			0.16%			-0.13%	
			(0.46)			(-0.42)	
Rolodex			-0.37%			0.11%	
			(-0.93)			(0.31)	
Percent CEO Text			0.07%			-0.34%	
			(0.12)			(-0.72)	
Optimism			0.26%			-0.06%	
			(0.68)			(-0.14)	
Overconfidence			-0.34%			-0.22%	
			(-0.51)			(-0.40)	
MBA			-1.06%			-0.73%	
			(-1.45)			(-1.26)	
Doctorate			2.29%			2.42%	
			(1.82)			(1.33)	
Ivy League			0.44%			0.60%	
			(0.84)			(1.22)	
Grad Honors			-0.65%			-1.94%	
			(-0.61)			(-1.96)	
Emotional Stability			1.16%			0.15%	

			(2.17)			(0.41)	
Openness			0.01%			-0.01%	
			(0.03)			(-0.03)	
Agreeableness			-0.61%			-0.53%	
			(-1.44)			(-1.37)	
Conscientiousness			0.30%			0.64%	
			(0.67)			(1.53)	
Observations	736	736	736	516	516	516	14
R-squared	2.95%	3.64%	7.46%	5.13%	5.55%	9.30%	21.26%

Table IA.17: CEO Extraversion and M&A Announcement Returns
(same as Table 10 in the text, with test-statistics reported for the control variables)

	[1]	[2]	[3]
Extraversion	0.26	0.36	0.45
	(1.58)	(2.22)	(2.17)
Tender		1.50	1.46
		(2.13)	(2.02)
Equity Finance		-2.14	-2.26
		(-2.09)	(-2.20)
Mixed Finance		-0.83	-0.74
		(-1.37)	(-1.23)
Public Target		-2.47	-2.45
		(-5.07)	(-5.04)
Private Target		-0.83	-0.82
		(-2.54)	(-2.42)
Ln (Sales)		-0.35	-0.11
		(-0.60)	(-0.19)
Ln (Assets)		-0.25	-0.16
		(-0.39)	(-0.25)
Ln (Q)		-0.25	-0.18
		(-1.21)	(-0.84)
Ln (Vol)		0.11	0.10
		(0.45)	(0.41)
Ln (Age)		0.04	(0.02)
		(0.23)	(0.07)
Lag Fiscal Ret		-0.18	-0.20
		(-1.46)	(-1.58)
Log (CEO Tenure)			0.32
			(1.67)
Log (CEO Age)			-0.13
			(-0.62)
Male			1.06
			(1.10)
Founder			0.19
			(0.31)
Chair			-0.26
			(-0.72)
GAI			0.03
			(0.17)
Rolodex			-0.27
			(-1.43)
Percent Ceo Text			0.21
			(0.63)
Optimism			-0.27
			(-1.48)
Overconfidence			0.21
			(1.15)
MBA			-0.01
			(-0.07)

Doctorate			-0.26
			(-1.06)
IvyLeague			-0.08
			(-0.59)
GradHonors			-0.12
			(-0.60)
Emotional Stability			-0.06
			(-0.33)
Openness			0.35
			(1.31)
Agreeableness			-0.31
			(-1.24)
Conscientiousness			-0.27
			(-1.04)
Fixed Effects	Industry & Year	Industry & Year	Industry & Year
Observations	1503	1503	1503
R-squared	3.84%	8.63%	10.23%