Keeping up with the Forbeses: Does Peer Recognition Promote Opportunistic Trading?*

Natalya Bikmetova, Robert Davidson, and Christo Pirinsky

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ABSTRACT

We find that following the debut of one of their peers on the Forbes 400 list of wealthiest Americans, corporate insiders start trading more aggressively as measured by the profitability, frequency, and size of their trades. The peer effect is long-lived and continues for at least 3 years following the inclusion event. Insiders' reaction is stronger when the debutant appears higher on the Forbes list and becomes insignificant when the debutant drops out of the list the following year. Peer recognition exhibits stronger effect on corporate insiders when exposed insiders and the Forbes insider share the same ethnicity. Finally, insiders with fewer professional awards and recognitions react more strongly to their peer's success.

Keywords: insider trading, opportunistic behavior, social comparisons, social psychology

JEL Classification: G14, G40, K42

* Bikmetova is with the Frank G. Zarb School of Business at Hofstra University, 148 Hofstra University, Hempstead, New York 11549, Natalya.Bikmetova@hofstra.edu, (516) 463-5364; Davidson is with the Virginia Tech Pamplin College of Business, Pamplin Hall, suite 3007, Virginia Tech, 880 West Campus Drive, Blacksburg VA 24061, rhdx@vt.edu, (540) 231-7352; Pirinsky is with the College of Business Administration of University of Central Florida, PO Box 161400, Orlando, FL 32816-1400, cpirinsky@ucf.edu, (407) 823-5962.

1. Introduction

There is extensive evidence in the academic literature that people are negatively affected by the success of others (Marsh & Parker 1984; Helgeson & Mickelson 1995). To narrow the performance gap individuals often emulate the behavior of better-performing peers, an idea that could be traced back to the works of Adam Smith and Thorsten Veblen (Smith 2010; Veblen 1899). This "keeping up with the Joneses" effect exists in various domains ranging from fads and fashions to consumption and investment decisions (Suzuki and Best 2003; Grinblatt, Keloharju, and Ikäheimo 2008; Chan and Kogan 2002). In this paper, we explore whether peer's success could prompt individuals to violate some of the existing norms in society.

At the outset, the answer to the above question is not clear. If individuals view compliance with social norms as a cost-benefit tradeoff, as suggested by Becker (1968), then peer success could promote opportunism. Successful peers increase, at least psychologically, the benefit of improved performance without affecting the cost of deviant behavior. As a result, underperforming individuals could be tempted to push the boundaries of the law to improve their performance. However, if deviant behavior is regulated by deeper moral controls, then the success of others would exhibit no effect on one's propensity to violate social norms.

To assess the implications of peer success for opportunistic behavior, we focus on insider trading. This setting has two major advantages. First, while existing rules and regulations discourage insiders from the use of proprietary information for private benefit, many of them trade opportunistically (Bhattacharya and Marshall 2012; Soltes 2016; Amiram, Huang, and Rajgopal 2020). Second, insiders are required to disclose information of all their insider trades with the Securities and Exchange Commission, which allows us to quantify the opportunistic component of each trade. If insiders do not exploit proprietary information, then their trades are expected to

exhibit average profitability. However, if insiders exploit some proprietary information, then their trades would realize significant abnormal performance *ex post*. Thus, the profitability of insider trades serves as a good proxy for the degree of opportunism in each trade.[1]

To "manipulate" peer success, we look at the time an insider joins the prestigious Forbes 400 list of the wealthiest Americans and assess whether their debut on the list affects the trading behavior of their peers. More specifically, we define an "exposed" insider as an insider who was present at a given firm (Forbes firm) at the time of a Forbes inclusion event who also traded as an insider in other firms (sample firms) before and after the event.[2] We define a "control" group of insiders as all insiders in sample firms who did not witness a Forbes inclusion event and traded before and after the associated event. Afterwards, we estimate a staggered difference-in-differences model with insider fixed effects of changes of several characteristics of insider trades across the treatment and control group. The evaluation of the behavior of insiders away from the Forbes firm alleviates concerns that our results are attributable to omitted factors related to the firm itself; it also allows us to control for any firm-specific factors affecting firm performance.

We find that the profitability of insiders' trades increases significantly following one of their peer's inclusion to the Forbes 400 list. The effect is economically meaningful. For example, we estimate that after the enforcement event treated insiders earn around 5% higher abnormal returns over the 180 days than do control insiders in the same firm. The effect is long-lived as it continues over the next 3 years following the inclusion event. We do not observe differences in

[1] Abnormal insider profits have been used extensively in the literature as a measure of opportunistic trading (see e.g., Jagolinzer, Larcker, and Taylor 2011).
[2] The term 'insider' refers to Section 16 officers, who are generally executives, non-senior managers, directors, and individuals owning more than 10% of the firm's outstanding stock. They are required to file trading reports under Section 16(a) of the Securities and Exchange Act of 1934.

performance over pre-treatment periods. Exposed insiders also trade more frequently and in larger quantities following the event, suggesting that peer success intensifies net insider trading activity.

A causal interpretation of our findings suggests that the Forbes-effect will be stronger for high-impact Forbes debuts. To explore this possibility, we identify all cases in which an insider debuts into the Forbes 400 list directly among the top 100 wealthiest individuals in US. We observe that the peer effect of these highly successful debuts is five times stronger than in all other cases. We also show that Forbes list debutants who dropped out of the list the following year exhibit no significant impact on their peers.

Social comparison theories suggest that peer effects will be stronger when people are similar (Pelham & Wachsmuth 1995; Lockwood & Kunda 1997; Mussweiler & Bodenhausen 2002). Given that ethnicity is an important dimension for socialization in an immigrant nation, next we explore whether the peer effect is stronger for insiders of the same ethnic group (see e.g., Yancey et al. 1976; Hogg and Abrams 1988; Akerlof 1997). We find that Forbes-insiders exhibit a stronger impact on the trading behavior of their peers when they share the same ethnicity.

Next, we examine whether the insider response varies with their level of accomplishment, measured with the number of professional awards and recognitions. There are two possibilities. On the one hand, insiders with more awards could exhibit a (revealed) preference for recognition. In this case, they are expected to react more strongly to the recognition of their peers. However, it is also possible that recognition is associated with declining marginal utility. If this is the case, more decorated insiders would be less susceptible to social pressure. We present evidence consistent with the second possibility – insiders with smaller number of awards react more strongly to the Forbes events.

At the end, we explore whether insiders closer to the threshold wealth for inclusion to the Forbes 400 list react stronger to the inclusion events. This is a challenging task given that aggregate wealth is not easily observable. To address this challenge, we construct a measure of insider total wealth using the methodology of Dittmann and Maug (2007). The measure, however, is biased towards the highest-level executives of the largest firms. To control for this selection, we use a Heckman correction. We find that individuals closer to the threshold for inclusion to the Forbes indeed exhibit greater sensitivity to the recognition of their colleagues.

The paper contributes to the literature analyzing the social aspects of deviant behavior. It is well accepted in this literature that people learn deviant behavior from their interactions with others (Sutherland and Cressey 1970). Ballester, Calvó-Armengol, and Zenou (2010) and Bayer, Hjalmarsson, and Pozen (2009) further argue that peer effects are particularly important in the context of crime due to the lack of formal training of criminal behavior. There is also extensive empirical evidence for the link between socialization and non-compliance. For example, Glaeser, Sacerdote, and Scheinkman (1996) identify peer effects in street crime. Individuals who know evading taxpayers are also less likely to comply themselves (Spicer and Lundstedt, 1976; Scott and Grasmick, 1981; Grasmick and Scott, 1982). Dimmock, Gerken, and Graham (2018) find that coworkers influence an individual's propensity to commit financial misconduct among U.S. financial advisors. We show that social factors could promote deviant behavior as a result of status considerations that are unrelated to social learning.

We also add to the work on upward social comparisons. A long line of research in economics shows that people engage in upward social comparisons and emulate the behavior of better performing peers (see, for example, Luttmer 2005; Bertrand and Morse 2016). Researchers generally agree that the equilibria under social influence are not Pareto-efficient and are

characterized with excessive consumption (Dupor and Liu, 2003), abnormal risk-taking (Abel, 1990; Chan and Kogan, 2002; Roussanov, 2010), and the formation of financial bubbles (DeMarzo, Kaniel, and Kremer, 2007). We present evidence that the social cost of upward social comparisons extends beyond the simple misallocation of effort.

Finally, our study contributes to the literature on insider trading. Existing rules and regulations discourage insiders from the use of proprietary information for private benefit. Yet many of them continue to trade opportunistically (Bhattacharya and Marshall 2012; Soltes 2016; Amiram, Huang, and Rajgopal 2020). Insider trading appears particularly puzzling, given that most insiders are educated, accomplished, and well-paid individuals (Bhattacharya and Marshall 2012). Our findings suggest status considerations are an important factor motivating insiders to engage in opportunistic trading.

2. Does Peer Success Promote Opportunistic Behavior?

People constantly engage in social comparisons. Festinger (1954) attributes this behavior to an inherent drive of humans to evaluate their opinions and abilities. While social comparisons could be conducted upwards (with people superior to them) or downwards (with people inferior to them), most of the time people choose to engage in upward social comparisons. For example, in a meta-analysis of social comparison research over the last 60 years, Gerber et al. (2018) conclude that upward comparisons are more common than downward comparisons. There is also strong evidence that upward social comparisons exhibit a negative effect on individuals because they diminish their self-esteem (Marsh & Parker 1984; Helgeson & Mickelson 1995).

Given that individual subjective well-being is negatively affected by the success of others, affected individuals may engage in behavioral responses aimed at improving their perceived

relative standing. Consistent with this idea, research in economics finds that individuals tend to copy the behavior and lifestyle of better performing peers. As Veblen (1899, page 103) wrote, "[t]he motive is emulation — the stimulus of an invidious comparison which prompts us to outdo those with whom we are in the habit of classing ourselves." Currently, the academic literature identifies various aspects of this behavior under the names "conspicuous consumption," "keeping up with the Joneses," and "quest for social status," among others.[3]

Do upward social comparisons promote opportunistic behavior? Compliance with social norms imposes constraints on individual behavior. As a result, social norms are constantly violated in every society. The concept of deviance is complex because norms vary considerably across groups, times, and places. Perhaps the most general view on deviant behavior is the control theory advocated by Travis Hirshi (1969) and Walter Reckless (1973). According to this theory, the personal tendency for violation is regulated by two sets of controls – internal and external. Internal controls include conscience, values, integrity, morality, and the desire to be a "good person" (Braver 1995; Charness and Dufwenberg 2006). These internal controls, if broken, do not invite formal punishments or sanctions. External controls, on the other hand, include factors such as police, family, friends, and religious authorities (Mirrlees 1976; Holmström 1979). According to Becker (1968), potential offenders balance the benefits and external costs associated with deviant behavior, taking into account both the probability for detection and the severity of punishment.

The importance of peer success for individual compliance with social norms would generally depend on the relative importance of the internal and external compliance forces. If people follow social norms motivated by moral considerations, then observing the success of

[3] See for example Hirsch (1976), Bertrand, Luttmer, and Mullainathan (2000), Luttmer (2005), Duflo and Saez (2003), Dupor and Liu (2003), Frank (2005), Charles, Hurst, and Roussanov (2009), Kuhn et al. (2011), and Bertrand and Morse (2016).

others would exhibit limited impact on individual propensity for norm violation. If people follow social norms motivated by external sanctions, then observing the success of others would promote deviant behavior. This is because upward social comparisons increase the expected benefits of additional wealth and success without increasing the expected costs. The effect would be particularly strong for people who have exhausted all legal means for improving their status.

3. Empirical Design

3.1. Methodology

Every fall, Forbes magazine publishes a ranked list of the 400 wealthiest people in the US, including their short biography, an estimated wealth, and primary source of income. The Forbes 400 list is an extremely exclusive and prestigious club. Indeed, there are allegations that some individuals have tried to inflate their personal wealth in order to be included in the list.[4]

To assess the effect of inclusions on the Forbes 400 list on insider trading, we compile all Forbes 400 lists, starting from the first one in 1982 and all the way up to 2020. Afterwards, we identify the subset of the wealthiest Americans who at the time of their inclusion on the list were insiders in US public firms. We use the term "insider" for officers of a firm who are required to file trading reports under Section 16(a) of the Securities and Exchange Act of 1934.

We link members of the Forbes 400 list to publicly traded firms based on the Thomson Reuters' insider filing database. The data contain information on all insiders disclosing their trades with the Securities and Exchange Commission, including their name, the time and the direction of

[4] For example, Donald Trump (https://www.forbes.com/sites/danalexander/2019/05/08/why-we-took-trump-off-the-forbes-400-during-his-decade-of-tax-losses/?sh=6fb885be33d9; https://www.bloomberg.com/view/articles/2018-04-23/trump-likes-gaming-the-forbes-400-it-s-a-con) and Wilbur Ross (https://www.forbes.com/profile/wilbur-ross-jr/?sh=76ff1bfa7c13).

the trade, and the number of shares traded. To be considered an insider in a firm, a person must have a record in Thomson Reuters' insider filing data within three years of the Forbes inclusion. We refer to all such firms as *Forbes firms*.[5]

Afterward, we identify all insiders in Forbes firms that are not members of the Forbes 400 list and witnessed the inclusion of their colleague to the list. Some of these individuals are insiders in multiple firms. To construct our sample, we focus only on exposed insiders holding appointments at other (non-Forbes) firms. These insiders and their trading behavior in non-Forbes firms constitute our *treatment group*. To construct our *control group*, we match each treated insider with replacement to a control group of insiders in the same firm who never witnessed a Forbes 400 inclusion event. We leave in the sample only insiders that execute trades both before and after the associated Forbes event.[6]

To evaluate the trading behavior of exposed insiders in non-Forbes firms relative to the trading behavior of control insiders we estimate the following regression model:

$$Y_{i,j,t} = \alpha + \beta_1 Post_{i,j,t} + \beta_2 Exposed_{\ i,j,t} * Post_{i,j,t} +$$

$$Insider\ fixed\ effects_{j,t} + Year\ fixed\ effects_{j,t} + \epsilon_{i,j,t}, \quad (1)$$

where the dependent variables $Y_{i,j,t}$ measure various characteristics of insider *i*'s trades in firm *j*'s stock at time *t*, such as trade profitability, frequency, and size. *Post* is an indicator variable equal to 1 for all trades taking place after the Forbes list publication date and equal to 0 for all trades taking place before the Forbes list publication date (all variable definitions are provided in the Appendix).[7] We also include the difference-in-differences term *Exposed* * *Post*.

[5] We match insider filing data and the Forbes data manually by insider and firm names.
[6] When we analyze purchases separately from sales, we require all insiders in models analyzing purchases (sales) to purchase (sell) shares before and after the enforcement event.
[7] We omit an indicator for *Exposed insiders* due to including Insider Fixed effects.

All insiders in the analysis execute at least one trade in a sample firm both before and after the event date, so that we could compare the trading behavior of the same insiders in both periods. The model includes insider and year fixed effects.[8] This fixed effects isolate variation in trading characteristics for each insider, controlling for possible temporal shifts in factors correlated with the Forbes events. Although we cannot rule out a correlated omitted variable, such a variable would need to vary for insider in a way that is correlated with the timing of exposed and control insiders' trades within the year, the sample firm's future abnormal stock returns, and with the associated Forbes inclusion event, which is not directly linked to the sample firm.

3.2. Characterizing Insider Trades

Illegal insider trading is formally defined as "buying or selling a security, in breach of a fiduciary duty or other relationship of trust and confidence, on the basis of material, nonpublic information about the security."[9] This definition implies that the identification and successful prosecution of illegal insider trading is challenging. Corporate insiders are routinely awarded company stock and regularly trade the stock to meet liquidity needs, making it difficult to separate information-based trades from non-information-based trades. Further, regulators have limited resources to monitor insiders and enforce the law in capital markets that encompass thousands of different firms and securities.

There is extensive evidence that insiders trade on privileged information that outside investors do not possess (Lin and Howe 1990; Huddart, Ke, and Petroni 2003; Huddart, Ke, and Shi 2007). First, consistent with informed trade, the stocks that insiders trade realize significant

[8] We also estimate this model including firm and year fixed effects instead of insider and year fixed effects; the results are of similar statistical significance (see Table 3).
[9] https://www.investor.gov/additional-resources/general-resources/glossary/insider-trading

abnormal returns following the transaction (Lakonishok and Lee 2001). Second, insider purchases (sales) are associated with significant positive (negative) abnormal stock returns around earnings announcements (Hillier and Marshall 2002; Marin and Olivier 2008). Finally, the SEC regularly prosecutes over 100 individuals for insider trading each year, suggesting that illegal insider trading is prevalent despite enforcement efforts.

In light of the above evidence, we evaluate the opportunistic component of insider trades by estimating abnormal returns over the 180 trading days following the transaction. Non-informed trades should not be associated with significant abnormal stock return performance. Informed trades, on the other hand, are expected to be profitable. We note that our approach allows us to identify opportunistic behavior in aggregate and does not present evidence for illegal insider trading by any particular insider. We also characterize insiders in terms of their trading frequency and trade size and investigate whether exposure to their peers getting into Forbes alters these aspects of insiders' trading behavior.

Following Jagolinzer, Larcker, and Taylor (2011), we estimate abnormal insider trading returns from trades as the α (-α) from the four factor Fama-French (1993) and Carhart (1997) model estimated over the 180 days following the transaction:

$$\left(R_{j,t} - R_{f,t}\right) = \alpha + \beta_1\left(R_{mkt,t} - R_{f,t}\right) + \beta_2 SMB_t + \beta_3 HML_t + \beta_4 UMD_t + \epsilon_t, \qquad (2)$$

where on a given day, $R_{j,t}$ is the daily return to firm *j*'s equity, $R_{f,t}$ is the daily risk-free interest rate, $R_{mkt,t}$ is the daily CRSP value-weighted market return, and SMB_t, HML_t, and UMD_t are the daily size, book-to-market, and momentum factors (Fama and French 1993; Carhart 1997). The estimated intercept term α (-α) is the average daily risk-adjusted return to a net purchase (sale) during the 180 days following the trade (*Insider abnormal returns)*.

3.3. Summary Statistics

Table 1 presents the distribution of the Forbes sample over time. The first two columns report the number of individuals added to the Forbes 400 list for the first time each year, along with their average rank on the list. The next two columns report the same measures but for the individuals that can be matched to Thomson Reuters insiders' filings dataset. The last three columns present the number of individuals added to the Forbes list that could be included in our sample, the number of insiders exposed to these events who also trade in other firms (treated insiders), and their unexposed peers (control insiders). We also verify that during the sample period control insiders were not exposed to the Forbes inclusion event in any of the other firms they hold insider roles.[10] Our final sample includes 997 treated insiders and 8,463 control insiders affiliated with 1,448 different firms.

In Table 2, we report insider-level summary statistics for sample insiders compared with the population across the Thomson Reuters universe. Our sample contains 160,793 trades, which account for 4.41% of the Thomson universe.[11] We observe that sample insiders earn lower abnormal returns and execute slightly larger trades.

Panel B of Table 2 reports descriptive statistics for the variables used in our analysis. *Insider abnormal returns* has a mean value of -0.01. These coefficients can be interpreted as daily basis points following the trade and are consistent with estimates from the prior literature – for example, using the same estimation methodology Jagolinzer et al. (2011) report mean values of 0.06 and -0.02 for purchases and sales, respectively. Insiders make about 2.35 trades per year, and the average trade size is about 55 thousand shares. The values for *Exposed insider* indicate that

[10] We consider an individual holding an insider role if she traded the stock of the firms that experienced the Forbes event within three years around the event.
[11] We treat multiple trades by the same individual on the same day in the same firm as one transaction.

9.36% of trades are made by exposed insiders. We observe that 49.50% of trades are made after the enforcement event. 4.57% of trades are made by *Exposed insiders* after they witnessed the Forbes inclusion event in another firm.

4. Results

4.1. Profitability of Insider Trades

Table 3 reports results from estimates of the baseline model in equation (1). The dependent variable is *Insider abnormal returns*. In the first two columns of Panel A, we estimate the baseline model for our full sample. Model (1) uses a specification with insider and year fixed effects, while model (2) uses a specification with firm and year fixed effects.

We observe that the difference-in-differences interaction term *Exposed* Post,* is positive and significant in both models. The results are economically significant. For example, the results in model (1) indicate that the difference-in-differences in abnormal returns of exposed insiders' post-exposure is 2.8 basis points higher per day, which considerably exceeds the sample mean of negative 1 basis point. This translates to increased abnormal returns of approximately 5.04% over the 180 days following the trade, suggesting a significant increase in abnormal returns following the debut on the Forbes list of an insider's peer.

The coefficients on both *Treated insider* and *Post* are not significantly different from 0 in the main specifications, indicating that abnormal returns in the pre-enforcement period are not different across treated and control insiders and that there is no difference in abnormal returns from trades made by control insiders in the pre- and post-enforcement periods.

The sample of treated insiders is not representative of the Thomson Reuters population because we require that these individuals are insiders in at least two different firms at the same

time. In practice, this means that treated insiders are more likely to be senior executives and directors than control insiders. It is not clear whether the peer effect will be stronger for an executive, director, or other Section 16 insider. However, it is possible that senior executives (and directors) have more valuable private information, so any change in their behavior exhibits a larger effect on abnormal returns.

To address the above concern, we require that, similar to treated insiders, control insiders be insiders in at least two different firms at the same time. Afterwards, we estimate the baseline model in this reduced subsample and report the estimated coefficients in the last two columns of Panel A of Table 3. We observe that the difference-in-differences term increases in both magnitude and significance.

In Panel B of Table 3, we estimate the baseline model separately for insider purchases and sales. We do not have strong priors that peer effects would depend on the direction of the trade. We show that the Forbes effect tends to be stronger for insider sales, possibly due to the larger sample size. The difference-in-differences term remains positive for insider purchases. It is also significantly different from zero in the first model of the table.

An implicit assumption of a difference-in-differences estimation is that there is no unobserved time-varying confounding effect to the treatment. One commonly used diagnostic for confounding effects is a parallel trend in the values of the dependent variable across the treatment and control groups pre-treatment. It requires that in the absence of treatment, the difference between the treatment and control groups is constant over time. While a staggered difference-in-differences design with insider and year fixed effects should reduce concerns over confounding effects, in Table 4, we decompose the Post variable into years relative to the Forbes event and run our baseline regression. Model (1) focuses on the baseline sample, while models (2) and (3) focus

on the subsample of purchases and sales, respectively. The combined purchases and sales sample size is considerably smaller than the baseline sample because, in those samples, we require each insider to have at least one purchase or sale, respectively.

As exposure to Forbes occurs on a specific day in the event year, we define Year -1 as the 365-day period leading up to the Forbes event (the Forbes list publication date) and Year+1 as the 365-day period following the Forbes event date (and so forth for other event years). In this regression, Year-1 and its interaction with Exposed are omitted due to collinearity. As shown in Table 4, we do not identify any significant positive effect of the Forbes event on the profitability of insider trades pre-exposure, while after the exposure, there is a significant positive effect of the event on the insider abnormal return. Although the effect is present for both purchases and sales, it is more long-lived in the case of insider sales.

Figure 1 plots the exposed insiders' Alphas and their 95% confidence intervals in event time. The vertical line separates the pre-exposure from the post-exposure period. We do not observe significantly positive Alphas prior to the Forbes inclusion event. Exposed insiders' Alphas also appear indistinguishable from zero over the two year prior to the event.

4.2. Trading Frequency and Trade Size

The insider trading literature has focused predominantly on abnormal returns earned from trades. Yet, insiders could change other characteristics of their trading as well. We next consider whether insiders change the frequency or the size of their trades after exposure to a Forbes inclusion event. The results are presented in Table 5.

The first model of Table 5 reports estimates from an OLS regression evaluating insider trading frequency. The dependent variable is the number of trades an insider makes in the 365 days

before or after the Forbes 400 list publication date. We measure trading frequency in this manner because we often do not know the year an insider's tenure started or ended at the firm, so the further we are from the enforcement event, the more likely that the absence of trades in a given year is because the insider was not at the firm. We include person fixed effects instead of person and year fixed effects in this regression. We find that exposed insiders trade at a higher frequency after witnessing a debut to the Forbes list of one of their peers.

The dependent variable in the second column of Table 5 is Trade size, measured as the number of shares traded scaled by 1,000. We find that following exposure to an inclusion to the Forbes list, insiders increase the size of their trades, although the effect here is marginally significant.

4.3. Position on the List and the Forbes 400 Effect

Are stronger debuts into the Forbes 400 list associated with stronger peer effects? To explore this possibility, we identify all cases in which an insider debuts into the Forbes 400 list directly among the top 100 wealthiest individuals in US. 19 out of the 251 Forbes debuts in our sample are directly into the Forbes 100 list. Some of the strong debutants on the Forbes list include Martha Rivers Ingram (Ingram Industries), Micky Arison (Carnival, Miami heat), Sergey Brin (Google Inc.), and William Wrigley Jr. (Wrigley's, Chicago Cubs).

Panel A of Table 6 presents the peer effects for the subsamples of insiders who witnessed a debut into the Forbes 100 list and insiders who witnessed a debut in a lower position on the list. We find that the exposure effect on insider abnormal profits of the highly successful debuts is five times stronger than the effect of all other cases. The difference of the peer effects across the two subsamples is also highly statistically significant.

A causal interpretation of our results also suggests that the peer effect should be less pronounced for people whose Forbes success is short-lived. In Panel B of Table 6, we split the Forbes debuts into two groups depending on whether the person who was added to the list dropped out of the ranking the following year. This happens in 7% of the cases. The difference-in-differences estimation for this sample is presented in model (1). Model (2) of Panel B estimates the peer effects of all other cases. We find that the effect of addition to the Forbes 400 list on exposed insider trading behavior is driven by people who remained on the Forbes list the following year.[12]

4.4. Peer Similarity and the Forbes 400 Effect

Social comparison theories suggest that peer effects would be stronger when people are more similar (Pelham & Wachsmuth 1995; Lockwood & Kunda 1997; Mussweiler & Bodenhausen 2002). Ethnicity is an important dimension for socialization in an immigrant nation (Yancey et al. 1976; Hogg and Abrams 1988; Akerlof 1997). As a result, here we explore whether the peer effects are stronger among individual who share the same ethnic background.

We infer the insiders' ethnic origin using two sources. The first source is nationality listed in the BoardEx dataset.[13] The second method follows Dimmock et al. (2018) and infers ethnicity from the insiders' last names using the Sood and Laohaprapanon (2018) algorithm exploiting the Wikipedia last name data assembled by Ambekar et al. (2009).[14] They build a model of the relationship between the sequence of characters in a name, race, and ethnicity using a Long Short

[12] We also explored whether the people who dropped out of the Forbes list the following year exhibit any short-term effect on their peers during the first year. We do not find a significant effect (these results are unreported).
[13] We match Boardex and our sample using insiders' names and firms they trade with.
[14] The identity categories are labeled using the Python ethnicolr package: long–short-term neural network (LSTM) trained on Wikipedia and the census datasets accordingly.

Term Memory (LSTM) model (Graves and Schmidhuber 2005).[15] If Forbes and exposed insider share the same foreign nationality or same ethnicity as per their last name, we consider them of the same origin.

In model (1) of Table 7, we estimate the baseline model over the subsample where the Forbes-insider and the treated insiders share the same ethnicity, while in model (2) of Table 7, we estimate the baseline model across all remaining observations. We find that Forbes-insiders exhibit stronger impact on the trading behavior of their peers when they share the same ethnicity. This is consistent with the results in other settings showing that social influence tends to be stronger for individuals with similar ethnic backgrounds (see Bertrand et al. 2000, Pool et al. 2015, Dimmock et al. 2018).

4.5. Does Personal Success Alleviate the Forbes 400 effect?

Next, we examine whether the magnitude of the Forbes 400 effect depends on the awards and recognitions of exposed insiders. The conditional effect on past recognitions on insider behavior is generally unclear. On the one hand, insiders with more awards and recognitions could exhibit stronger reaction to the recognition of their peers if they tend to value recognitions more. On the other hand, more decorated insiders could exhibit a weaker response to the recognition of their peers if their marginal utility of awards is declining.

We proxy for insider recognition by counting all awards they received as reported by BoardEx before being exposed to the Forbes inclusion event. We then split the sample in two, depending on whether the awards of exposed insiders are above or below the sample median. The

[15]The Wikipedia-based algorithm creates thirteen categories. We use 'British' and 'Jewish' as the comparison category in our analysis because the manual check of Forbes individuals' bios suggests most of them have ties only to the United States.

results are presented in Table 8. We observe that insiders with relatively small number of awards exhibits a stronger reaction to the Forbes inclusion events. This is consistent with Falk and Ichino (2006), who find that low-productivity workers are the most sensitive to the behavior of peers.

4.6. Personal Wealth and the Forbes 400 Effect

At the end, we explore whether insiders whose wealth is closer to the threshold level for inclusion to the Forbes 400 list react stronger to the inclusion of their peers to the list. We measure insider wealth following the methodology of Dittmann and Maug (2007).[16] They decompose aggregate wealth into current firm-based and non-current firm-based wealth based on information about the insider's past and current compensation contracts. More specifically, Dittmann and Maug measure current firm-based wealth as the current market value of all stock and option holdings as reported in Execucomp. They measure non-current firm-based wealth by taking into account historical cash compensation and the realized gains on prior stock sales.

The above approach, however, is biased towards the top executives of the largest firms covered by the Execucomp database. This makes the analysis particularly challenging, given that top executives are expected to be more recognized and, as a result, less subject to the peer effects analyzed in the paper (see the results in the previous section).

To address the selection in the subsample with observable wealth, in model (1) of Panel A of Table 9, we estimate a Probit regression of insiders' probability of having wealth data (the dependent variable equals one if an insider has wealth data and zero otherwise). In Panel B of Table 9, we use the Inversed Mills Ratio from the Probit estimation in order to control for the sample selection. The Probit model indicates that older and more recognized insiders are more

[16] The data is provided by Ingolf Dittmann on his website: https://sites.google.com/site/dittmanningolf/data.

likely to be included in the wealth data. Female insiders are also less likely to be included in the wealth subsample. The last two columns of Table A estimate the baseline model within the subsample with wealth data and the subsample without wealth data. The results confirm our general intuition that peer effects are stronger within the subsample of lower level executives without wealth data.

In Panel B of Table 9, we focus on the subsample of insiders with available wealth data, controlling for the selection of the sample. Model (1) includes the trades of all exposed insiders in the top decile based on personal wealth, while model (2) includes the trades of all exposed insiders that are not in the top decile. By design, the insiders in model (1) are much closer to the threshold level for inclusion into the Forbes 400 list. We observe that the peer effect is stronger for insiders from top 10 percent of the wealth distribution.

5. Conclusion

We find that following the debut of one of their peers to the Forbes 400 list of wealthiest Americans, insiders start trading more opportunistically. Specifically, they increase the profitability of their trades, trade more frequently, and trade in larger quantities. The peer effect is more pronounced when the Forbes debut is stronger, and the exposed insider is less accomplished. Peers who share the same ethnic background are also more susceptible to social influence. Our conclusion is that upward social comparisons promote opportunistic behavior.

The paper bridges two important literatures. The first one is on the social aspects of deviant behavior. According to this literature, people learn from others how to violate social norms. We argue that social factors could pressure people into opportunistic behavior even without the learning element of social interactions. The second literature is on social comparisons. According

to this literature, people value their relative standing in a group. As a result, they are negatively affected by the success of others. To narrow their performance gap, people work harder or try to emulate the behavior of their better-performing peers. We contend that status considerations could prompt people to violate social norms.

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Appendix – Variable Definitions

Variable	Definition and Data Source
Forbes insider	An individual who debuts on the Forbes 400 list during our sample period. *Source: Forbes magazine*
Forbes firm	A firm associated with a *Forbes insider* at the time of the debut (an insider is considered associated with a firm if they trade its stock within a three-year window before and after the inclusion event). *Source: Forbes magazine, Thomson Reuters*
Exposed insider	An insider at a *Forbes firm* who has concurrent appointments at other firms unassociated with Forbes insiders. These firms comprise our sample. *Source: Forbes magazine, Thomson Reuters*
Control insider	Insiders who are colleagues of exposed insiders in the sample firms but never witnessed a Forbes inclusion event. *Source: Forbes magazine, Thomson Reuters*
Insider abnormal returns	Abnormal returns from purchases (sales) calculated as the Alpha (-Alpha) from the four factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Source: CRSP, Thomson Reuters, Fama-French factors*
Post	An indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date and equal to 0 for trades occurring before the Forbes 400 inclusion date. *Source:* Forbes magazine
Trading frequency	The number of trades executed during the 365 days preceding or following a Forbes inclusion date. *Source: Forbes magazine, Thomson Reuters*
Trade size	The number of shares traded in thousands. *Source: Thomson Reuters*
Forbes Top 100	An *Exposed insider* who has witnessed a debut directly into the top 100 spots of the Forbes 400 list. *Source: Forbes magazine*
Drop out of the list next year	An *Exposed insider* who has witnessed a debut into the Forbes 400 list, followed by drop out of the list the following year. *Source: Forbes magazine*
Same Origin	An indicator variable equal to 1, if an *Exposed insider* and a *Forbes insider* share either 1) the same (non-US) nationality or 2) the same (non-US) ethnicity, inferred from their last names; and equal to 0, otherwise. *Source: Thomson Reuters, BoardEx*
Number of awards above the median	An indicator variable equal to 1, if an *Exposed insider* has a total number of awards above the sample median at the time of the Forbes inclusion event; and equal to 0, otherwise. The number of awards are derived from the ExecuComp database. *Source: BoardEx*
Total Wealth in top decile	An indicator variable equal to 1, if the *Exposed insider* wealth is in the top decile of the sample of executives with non-missing wealth data; and equal to 0, otherwise. Executive's wealth is estimated as in Dittmann and Maug (2007). *Source: ExecuComp, Dittmann and Maug (2007)*

Table 1
Sample Composition over Time

This table reports annual summary statistics for the entire Forbes 400 list inclusions sample, its intersection with the Thomson Reuters Insider Trading dataset, and the matched sample of exposed and control insiders (defined in the Appendix).

	All Forbes inclusions		Intersection of Thomson and Forbes		Matched Sample		
Year	# Forbes individuals	Average rank when included	# Forbes individuals	Average rank when included	# Forbes insiders	# Exposed insiders	# Control insiders
(1)	(2)	(3)	(5)	(6)	(8)	(9)	(10)
1982	400	200.5					
1983	76	231.78					
1984	36	193.22					
1985	40	294.33	1	348			
1986	54	251.96	2	333.5			
1987	59	275.68					
1988	37	257.92					
1989	35	233.51	5	246			
1990	27	279.7	7	330.43	2	2	12
1991	29	262.83	8	269.88	2	6	37
1992	31	279.52	14	260.64	10	33	344
1993	37	297.05	16	256.81	12	31	412
1994	35	277.06	14	270.86	8	26	359
1995	39	271.49	20	261.6	15	100	1086
1996	43	245.23	26	282.73	15	87	1015
1997	30	283.17	13	277.38	10	73	790
1998	37	297.43	27	297.63	24	145	1585
1999	61	245.3	49	252.16	31	143	1474
2000	48	249.54	37	232.46	21	46	452
2001	27	286.81	16	280.19	11	57	477
2002	19	308.47	9	340.33	5	24	228
2003	15	270	7	264.71	1	1	4
2004	44	214.93	13	237.15	7	30	199
2005	34	259.06	20	291.8	12	36	324
2006	30	273.63	16	276.06	10	20	170
2007	45	264.44	21	257.38	11	33	330
2008	31	273.9	9	281	8	24	183
2009	19	300	6	308.33	4	12	122
2010	17	257.12	8	310.88	5	7	63
2011	22	249.23	6	279.17	4	15	109
2012	22	271.68	8	343.13	6	10	185
2013	20	277.7	7	301.57	7	14	143
2014	27	259.78	9	255.22	4	9	73

Table 1 - Continued

	All Forbes inclusions		Intersection of Thomson and Forbes		Matched Sample		
Year	# Forbes individuals	Average rank when included	# Forbes individuals	Average rank when included	# Forbes insiders	# Exposed insiders	# Control insiders
(1)	(2)	(3)	(5)	(6)	(8)	(9)	(10)
2015	26	278	2	351	2	3	26
2016	23	271.7	3	341.67	2	6	43
2017	23	237.26	4	336.5	2	4	37

Table 2
Summary Statistics

This table presents summary statistics of the main sample. Panel A compares the trades of the insiders in the sample with the trades of the population of all insiders covered in the Thomson Reuters and CRSP databases. Panel B reports summary statistics for the main variables. *Insider abnormal returns* from purchases (sales) are calculated as the Alpha (-Alpha) from the four-factor Carhart model estimated over the 180 days following the transaction (Carhart 1997). *Trading frequency* is the number of trades made by an insider over the 365 days preceding or following the associated Forbes inclusion date. *Trade size* is the number of shares traded in thousands. *Exposed insider* is an indicator variable equal to 1 for insiders exposed to a Forbes list inclusion event, and equal to 0 for control insiders (colleagues of exposed insiders who were never exposed to a Forbes list inclusion event). *Post* is an indicator variable equal to 1 for trades occurring after the Forbes inclusion date, and equal to 0 for trades occurring before the Forbes inclusion date. (***), (**), and (*) indicate statistically significant differences at the 0.01, 0.05 and 0.10 level, respectively.

Panel A: Sample Comparison to the Population

	Sample insiders		Thomson Reuters/ CRSP population		Difference	
	Mean	Median	Mean	Median	Mean	Median
	(1)	(2)	(3)	(4)	(5)	(6)
Trades:						
Insider abnormal returns	-0.01	-0.01	0.01	0.00	-0.021***	-0.010***
Trade size	55.66	6.25	34.65	4.75	21.0 ***	1.50***
Number of observations	160,793		1,850,750			

Panel B: Trade-Level Sample Summary

	Mean	St. Dev
	(1)	(2)
Mean value:		
Insider abnormal returns	-0.01	0.28
Trading frequency	2.35	4.77
Trade size	55.66	164.39
Percentage of trades:		
Exposed insider	9.36%	
Post	49.50%	
Exposed insider * Post	4.57%	

Table 3

Insider Abnormal Returns Following a Peer Debut on the Forbes 400 List

This table reports coefficient estimates from OLS regressions of abnormal insider returns following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. *Insider abnormal returns* are calculated as the Alpha for purchases and negative Alpha for sales from the four-factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. *Post* is an indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date, and equal to 0 for trades occurring before the Forbes 400 inclusion date. Panel A estimates the baseline model for all trades. The first two columns present results using the entire sample, while the last two columns present results for the subsample of control insiders holding insider roles in multiple firms. Models (1) and (3) include person and year fixed effects; models (2) and (4) include firm and year fixed effects. Panel B estimates the baseline model for the subsamples of purchases and sales. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

Panel A. All Trades

	Full Sample		Subsample of Insiders Holding Insider Roles in Multiple Firms	
	(1)	(2)	(3)	(4)
Exposed * Post	**0.028*** **	**0.020* **	**0.035*** **	**0.025** **
	(2.697)	**(1.867)**	**(3.169)**	**(2.366)**
Exposed		-0.005		-0.011
		(-0.688)		(-1.387)
Post	0.004	0.010	0.003	0.035***
	(1.012)	(1.591)	(0.502)	(3.107)
Constant	0.064*	0.092***	0.087**	0.223***
	(1.887)	(2.862)	(2.189)	(4.657)
Observations	160793	160793	74394	74394
Adjusted R-squared	0.231	0.192	0.219	0.257
Firm F.E.	No	Yes	No	Yes
Person F.E.	Yes	No	Yes	No
Year F.E.	Yes	Yes	Yes	Yes

Panel B. Trade Direction Subsamples

	Purchases		Sales	
	(1)	(2)	(3)	(4)
Exposed * Post	**0.028** **	**0.004**	**0.052*** **	**0.055*** **
	(2.004)	**(0.299)**	**(3.130)**	**(3.732)**
Exposed		0.005		-0.031***
		(0.341)		(-3.311)
Post	0.001	0.005	0.005	0.007
	(0.063)	(0.341)	(0.706)	(0.721)
Constant	0.113***	0.176***	-0.135***	-0.124***
	(3.306)	(4.002)	(-3.213)	(-2.643)
Observations	36302	36302	58535	58535
Adjusted R-squared	0.265	0.292	0.284	0.259
Firm F.E.	No	Yes	No	Yes
Person F.E.	Yes	No	Yes	No
Year F.E.	Yes	Yes	Yes	Yes

Table 4

Annual Insider Abnormal Returns Around a Peer Debut on the Forbes 400 List

This table estimates OLS regressions of abnormal insider returns following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. *Insider abnormal returns* are calculated as the Alpha for purchases and negative Alpha for sales from the four-factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. The model also includes a set of indicators *Year* for each year in the sample, excluding the year before the Forbes inclusion event, and the interactions of *Exposed insider* with the indicator variables. For brevity, the table reports only the estimates of the interaction coefficients. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

	Full Sample	Purchases	Sales
	(1)	(2)	(3)
Exposed * Year -3	-0.035	-0.078*	0.019
	(-1.018)	(-1.774)	(0.881)
Exposed * Year -2	-0.000	0.011	-0.013
	(-0.003)	(0.965)	(-0.640)
Exposed * Year 1	**0.035*** **	**0.042** **	**0.039** **
	(2.605)	**(2.431)**	**(2.037)**
Exposed * Year 2	**0.031***	**0.023**	**0.060** **
	(1.890)	**(1.263)**	**(2.163)**
Exposed * Year 3	**0.017**	**0.026**	**0.046*** **
	(1.430)	**(1.543)**	**(2.800)**
Observations	160793	36302	58535
Adjusted R-squared	0.233	0.269	0.286
Person F.E.	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes

Table 5
Insider Trading Frequency and Trade Size Following a Peer Debut on the Forbes 400 List

This table reports coefficient estimates from OLS regressions of insider trading frequency and trade size following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. *Trading frequency* is the number of insider trades during the 365 days before or after the associated Forbes 400 list inclusion. *Trade size* is the number of shares traded in thousands. *Trade size* is the number of shares traded. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. *Post* is an indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date, and equal to 0 for trades occurring before the Forbes 400 inclusion date. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

	Trading Frequency	Trade Size
	(1)	(2)
Exposed * Post	**0.994*** **	**19.270* **
	(2.960)	**(1.940)**
Post	1.031***	-1.630
	(21.780)	(-1.142)
Constant	1.820***	38.512***
	(55.228)	(4.694)
Observations	31297	160793
Adjusted R-squared	0.500	0.361
Person F.E.	Yes	Yes
Year F.E.	No	Yes

Table 6
Insider Abnormal Returns Following a Peer Debut on the Forbes 400 Conditional on Debut Success

This table reports coefficient estimates from OLS regressions of abnormal insider returns following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. *Insider abnormal returns* are calculated as the Alpha for purchases and negative Alpha for sales from the four-factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. *Post* is an indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date, and equal to 0 for trades occurring before the Forbes 400 inclusion date. Panel A focuses on strong debuts. Model (1)/(2) estimates the baseline model over the subsample of insiders exposed do debuts directly into/outside of the top 100 positions. Panel A focuses on weak debuts. Model (1)/(2) estimates the baseline model over the subsample of insiders exposed do debutants who drop out of/remain on the list the following year. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

Panel A. Conditional on Debut Ranking

	Forbes Top 100	Others	Difference
	(1)	(2)	(3)
Exposed * Post	**0.116*****	**0.021****	**0.097*****
	(3.615)	**(1.984)**	**(2.899)**
Post	-0.025	0.007	
	(-1.312)	(1.598)	
Constant	0.193***	0.066*	
	(2.821)	(1.941)	
Observations	8572	152221	
Adjusted R-squared	0.278	0.233	
Person F.E.	Yes	Yes	
Year F.E.	Yes	Yes	

Panel B. Conditional on Dropping out of the List

	Drop out of the list next year	Others	Difference
	(1)	(2)	(3)
Exposed * Post	**-0.017**	**0.033*****	**-0.034***
	(-0.928)	**(2.840)**	**(-1.653)**
Post	0.024**	-0.003	
	(2.168)	(-0.605)	
Constant	0.207***	0.058*	
	(4.259)	(1.722)	
Observations	23486	137307	
Adjusted R-squared	0.227	0.238	
Person F.E.	Yes	Yes	
Year F.E.	Yes	Yes	

Table 7

Insider Abnormal Returns Following a Peer Debut on the Forbes 400 List Conditional on Ethnic Origin

This table reports coefficient estimates from OLS regressions of abnormal insider returns following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. *Insider abnormal returns* are calculated as the Alpha for purchases and negative Alpha for sales from the four-factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. *Post* is an indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date, and equal to 0 for trades occurring before the Forbes 400 inclusion date. Column (1)/(2) estimates the baseline model over a subsample of observations where the Exposed insider and the Forbes insider share/do not share the same origin. Insiders share the same origin if they have either 1) the same (non-US) nationality or 2) the same (non-US) ethnicity, inferred from their last names. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

	Same Origin	Different Origin	Difference
	(1)	(2)	(3)
Exposed * Post	**0.137****	**0.025****	**0.115***
	(2.079)	**(2.404)**	**(1.799)**
Post	-0.058	0.005	
	(-0.721)	(1.077)	
Constant	0.034	0.065*	
	(0.307)	(1.925)	
Observations	1745	159048	160793
Adjusted R-squared	0.387	0.230	0.023
Person F.E.	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes

Table 8

Insider Abnormal Returns Following a Peer Debut on the Forbes 400 List Conditional on Exposed Insider's Awards

This table reports coefficient estimates from OLS regressions of abnormal insider returns following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. *Insider abnormal returns* are calculated as the Alpha for purchases and negative Alpha for sales from the four-factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. *Post* is an indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date, and equal to 0 for trades occurring before the Forbes 400 inclusion date. Column (1)/(2) estimates the baseline model over the subsample of insiders with large (above the median)/small (below the median) number of awards. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

	Number of awards above the median	Number of awards below the median	Difference
	(1)	(2)	(3)
Exposed * Post	**0.008**	**0.039*** **	**-0.032***
	(0.687)	**(3.311)**	**(-1.821)**
Post	-0.008	0.016***	
	(-1.160)	(2.769)	
Constant	0.060	0.334***	
	(1.416)	(7.645)	
Observations	52917	84162	137079
Adjusted R-squared	0.204	0.233	0.061
Person F.E.	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes

Table 9
Insider Abnormal Returns Following a Peer Debut on the Forbes 400 List Conditional on Exposed Insider's Wealth

This table reports coefficient estimates from OLS regressions of abnormal insider returns following the debut of one of their peers on the Forbes 400 list of wealthiest Americans. Panel A focuses on the full sample. The first model in the panel estimates a Probit model for the probability that an exposed insider has wealth data, where wealth is estimated following the methodology in Dittmann and Maug (2007). The last two models estimate the baseline model over the subsamples with/without wealth Exposed insider wealth data. Panel B focuses on the sub-sample with non-missing exposed insider wealth data. Column (1)/(2) estimates the baseline model over the subsample of wealthiest (top 10 percent)/less wealthy (bottom 90 percent) insiders. *Insider abnormal returns* are calculated as the Alpha for purchases and negative Alpha for sales from the four-factor Carhart model (Carhart 1997) estimated over the 180 days following the transaction. *Exposed insider* is an indicator variable equal to 1 for insiders who have witnessed their peer's addition to the Forbes 400 list and who have concurrent appointments at other firms unassociated with Forbes insiders (*sample firms*), and equal to 0 for colleagues of Exposed insiders in *sample firms* who have never witnessed an addition to the Forbes 400 list. *Post* is an indicator variable equal to 1 for trades occurring after a Forbes 400 inclusion date, and equal to 0 for trades occurring before the Forbes 400 inclusion date. All insiders in the sample execute at least one trade both before and after the Forbes 400 inclusion event. The last two rows report the total number of observations and the adjusted R-squared in each regression. Standard errors in all models are adjusted for clustering at the person-event level. (***), (**), and (*) indicate statistical significance at the 0.01, 0.05, and 0.10 level, respectively.

Panel A. Wealth Sample Selection

	Probability of Insider Having Wealth Data	Forbes Effect	
		Insiders Without Wealth Data	Insiders With Wealth Data
	(1)	(2)	(3)
Exposed * Post		**0.034*** **	0.006
		(3.045)	(0.522)
Post		0.003	0.004
		(0.540)	(0.455)
Ln (Insider Age)	0.513***		
	(23.356)		
Ln (Insider Awards)	0.108***		
	(21.634)		
Insider Female	-0.079***		
	(-5.338)		
Constant	-4.183***	0.295***	-0.059
	(-30.209)	(7.241)	(-1.136)
Observations	134756	96983	38015
Adjusted R-squared	0.034×	0.227	0.224
Person F.E.	No	Yes	Yes
Year F.E.	Yes	Yes	Yes

× *Pseudo R-squared*

Table 9 - Continued

Panel B. Conditional on Exposed Insider's Wealth

	Total Wealth in top decile	Total Wealth below top decile	Difference
	(1)	(2)	(3)
Exposed * Post	**0.062****	**-0.012**	**0.057***
	(1.980)	**(-0.992)**	**(1.751)**
Post	-0.057	0.019***	
	(-1.145)	(3.128)	
Constant	-0.073	0.003	
	(-0.352)	(0.113)	
Inverse Mills Ratio	0.113	-0.024	
	(0.309)	(-0.356)	
Observations	5470	32545	38015
Adjusted R-squared	0.333	0.204	0.098
Person F.E.	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes

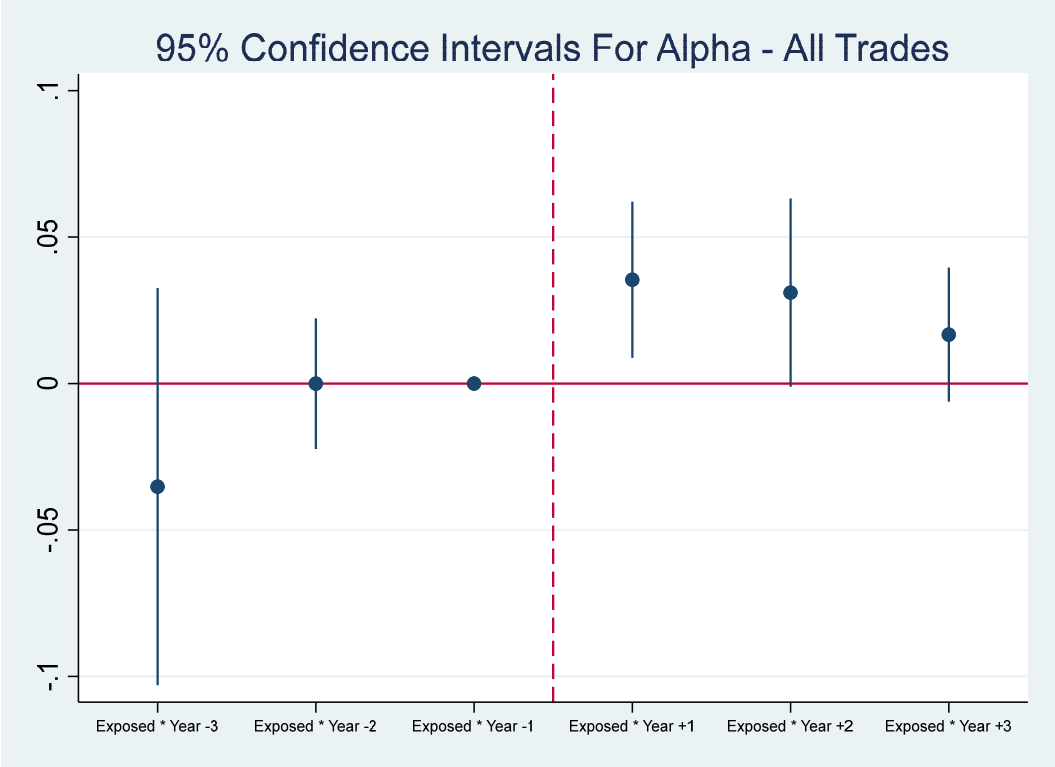

Figure 1 – Leads and Lags Plot of Forbes effect 3 years around the Forbes inclusion.
This figure presents the coefficients for exposed insiders' Alphas all trades and 95% confidence intervals from Table 4. The vertical line separates the pre- from the post-Forbes event period.